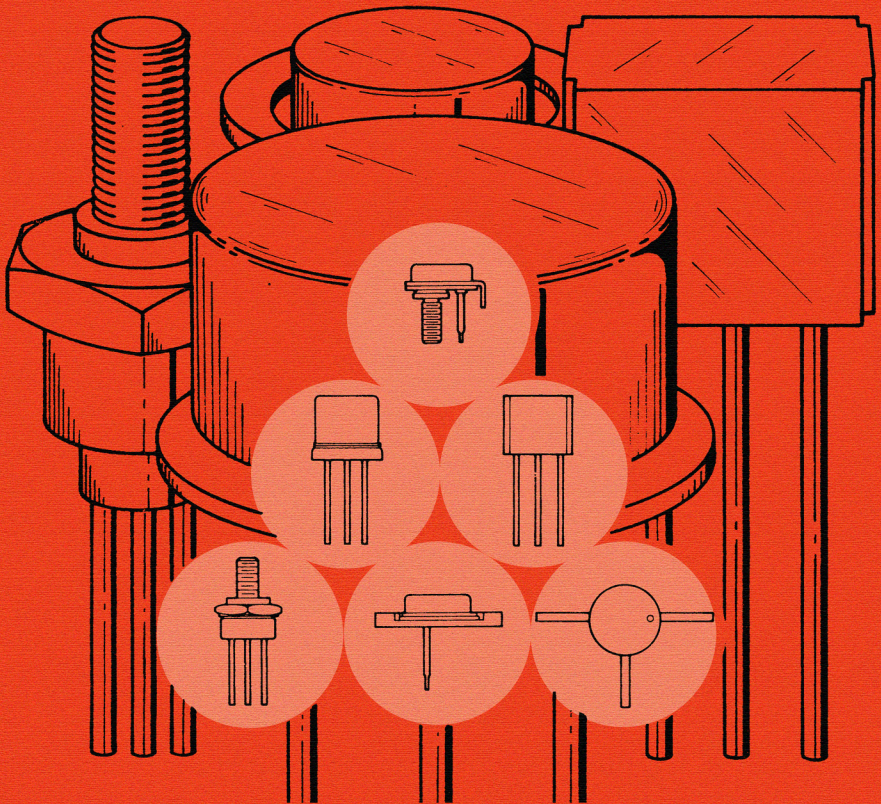


TWO DOLLARS AND TWENTY-FIVE CENTS

ALLIED



Transistor Substitution HANDBOOK



TRANSISTOR SUBSTITUTION HANDBOOK

by

The Howard W. Sams Engineering Staff



HOWARD W. SAMS & CO., INC.
THE BOBBS-MERRILL CO., INC.
INDIANAPOLIS • KANSAS CITY • NEW YORK

TENTH EDITION
FIRST PRINTING—1971

Copyright © 1961, 1962, 1963, 1964, 1965, 1967, 1968, 1969, 1970,
and 1971 by Howard W. Sams & Co., Inc., Indianapolis, Indiana 46206.
Printed in the United States of America.

All rights reserved. Reproduction or use, without express permission,
of editorial or pictorial content, in any manner, is prohibited. No patent
liability is assumed with respect to the use of the information contained
herein. While every precaution has been taken in the preparation of this
book, the publisher assumes no responsibility for errors or omissions.
Neither is any liability assumed for damages resulting from use of the
information contained herein.

International Standard Book Number: 0-672-20835-0
Library of Congress Catalog Card Number: 61-10965

Contents

Introduction 5

A Guide to Making Transistor Substitutions 7

SECTION 1

Transistor Substitutes 9

SECTION 2

General-Purpose Replacements 156

Introduction

Since the development of the transistor, thousands of different types have been produced. Considering the variety of applications for transistors in today's electronic equipment, it is reasonable to assume that newer types will continue to be introduced at an even faster pace.

This rapid development, however, does create some problems. The design engineer and prototype technician are faced with such wide choices of transistor types that they often design circuits to fit transistors, rather than vice versa. If it becomes necessary to make replacements, the service technician also has his problems. For example, the original type may no longer be manufactured, or it may not be readily available. This means the repair cannot be completed unless a suitable substitute can be found.

Paradoxically, the same conditions that lead to an almost limitless variety of transistors also make substitutions quite feasible. The present state of the electronics art permits many of the transistor parameters to be designed for various types of equipment, rather than designing the equipment to use available transistor types. This gives rise to a great many transistors having nearly identical characteristics. In addition, transistors having identical electrical characteristics are encapsulated in a number of different cases, and in many instances the differences in physical characteristics are so slight that the types can be easily interchanged.

A close look at transistor specifications will also reveal that there are groupings of transistors having nearly identical characteristics. For example, if you examine the specifications for the 2N513, 2N513A, 2N514, 2N514A, and 2N514B, you will find that many of the characteristics are exactly the same, and that there are only slight differences in a few of the specifications.

What does all this mean? Simply that transistors "in the same family" can often be substituted for one another. This is not always true, however. First of all, transistors "in the same family" do not necessarily have sequential type numbers; there are many instances where transistors bearing sequential numbers are as different from one another as black from white. Secondly, the design parameters of some circuits will be exceeded by some or all transistors of similar types; thus, use of a substitute may result in improper circuit operation. On the other hand, numerous experiments indicate that less critical transistor circuits will operate—with varying degrees of effi-

ciency—using practically any transistor made of the same material (silicon or germanium) and having the proper polarity (npn or pnp).

It is with these thoughts in mind that we bring you this edition of the Howard W. Sams **Transistor Substitution Handbook**. To assure you of the most accurate substitutions possible, the listings have been selected by an electronic computer. Also included are general-purpose substitutes for some of the more popular types as recommended by several manufacturers of these transistors.

A handwritten signature in black ink, reading "Howard W. Sams". The signature is written in a cursive style with a large, prominent initial 'H'.

A Guide to Making Transistor Substitutions

Basically, there are only two reasons for considering the use of a substitute transistor: (1) The original type is no longer being manufactured, or (2) The exact type cannot be obtained without a costly delay. When an original type is no longer available, there is obviously no choice; either a suitable substitute must be found or the equipment in which it is used must be modified or discarded. When an exact replacement is not immediately available, it is advisable to order an exact replacement if the design parameters of the circuit are extremely critical. However, if an immediate repair is necessary, a substitute transistor may be tried in the meantime, with the hope that a temporary repair can be effected until the proper type is obtained.

Generally speaking, similar bipolar transistors designed for use in medium- and low-frequency circuits can be readily substituted for each other, particularly if the requirements of the equipment are not too exacting. (Radios, audio amplifiers, and other such home-entertainment devices are good examples.) For these applications, only a few transistor characteristics need be considered in selecting a substitute. The first consideration, of course, is polarity. An npn type can never be directly substituted for a pnp type, or vice versa. Neither can germanium and silicon transistors be interchanged. Another major consideration is the maximum collector-current rating. Obviously, a transistor capable of handling a maximum current of 50 mA cannot be used in a circuit which results in conduction of 100 mA or more. Maximum collector dissipation is another important characteristic. Primarily, it is a function of junction temperature (which can change with the ambient temperature), heat-sink efficiency, and the thermal resistivity. If a substitute transistor has a higher thermal resistivity than the unit it replaces, the dissipation rating may have to be greater in order to safely handle the same collector current.

Some final points to consider in selecting suitable transistor substitutes have to do with physical design. In this respect, transistors differ in lead arrangement, and size and shape of the case. Although two transistors may be electrically similar, they may be different physically. Thus, if the allotted space for a transistor is limited, size and shape must also be considered. The choice of a substitute may be

further limited by the mounting facilities, requiring that the basing and connector characteristics be the same as, or similar to, those of the original.

It stands to reason that a replacement that is both electrically and physically similar to the original transistor is more desirable than one that is only electrically similar. Consequently, when you are confronted with the problem of selecting a substitute transistor with exacting specifications, it is advisable to consult the Howard W. Sams **Transistor Specifications Manual**. Specific characteristics, such as maximum voltages, power dissipation, gain, frequency response, and all of the physical parameters necessary for precise substitution are listed in the specifications manual.

Section 1

Transistor Substitutes

Both American and foreign transistors are included in this section. They are arranged in numerical and alphabetical order, placing the registered 2N numbers near the beginning of the list.

The type number of the transistor to be replaced is located in the left-hand column. If the transistor is no longer manufactured, there will be a dash (—) before the number. Substitutes that were computer selected are listed at the right. They contain appropriate types of American, European, and Japanese manufacturers.

Substitutes recommended by the manufacturer or supplier of a general-replacement series follow those selected by the computer and are marked with an asterisk (*).

In cases where an obsolete type has been superseded by another type that is practically an exact replacement, a cross reference has been provided ("See 2N. . ."). If further substitutes are needed, check this type in the main listing.

The computer-selected substitutes in this handbook do not necessarily have the same physical characteristics as those of the transistor being replaced. However, the physical dimensions of the substitute are approximately equal to or smaller than the original, so a replacement will fit into the space occupied by the original transistor. Also, the computer was programmed to select power transistors that have similar case styles and physical dimensions.

Detailed descriptions of several lines taken from the listings in this section are shown for reference on the next page.

TRANSISTOR SUBSTITUTES

O b1 31	To Replace	Substitute This Type
2	-2A 2A -2C -2D -2F -2F -2G 2N34	*GE-9, *TR-05, *HF 35, *HEP254 *SEE 2N52 *HEP635, *TR-05 *TR-C5, *HEP635 *HEP635, *TR-05, *HF 35, *GF-9 *GE-9, *HF 35, *HEP2 *HEP3, *HF 35, *GE-9
3	-2N34+ 2N34A 2N35 -2N35+ 2N36	2N59A, 2N59B, 2N59C, 2N60A, 2N60B, 2N60C, 2N382, 2N518, 2N526, 2N526A 2N651, 2N651A, 2N1008, 2N1057, 2N1057A, 2N1187, 2N1189, 2N1192, 2N1349 2N1351, 2N1371, 2N1375, 2N1449, 2N1452, 2N1925, 2N2956, 2SA311, 2SA312 2SR433, MA10C, MA882, MA887, SF-T243, *HEP254, *TR-05, *FCG102, *GE-2 *AA1, *DS-26 2N59A, 2N599, 2N59C, 2N382, 2N383, 2N461, 2N527, 2N527A, 2N597, 2N651 2N652A, 2N1008A, 2N1008B, 2N1124, 2N1175, 2N1187, 2N1188, 2N1199 2N1375, 2N1377, 2N1449, 2N1926, 2N1997, 2N2957, 2SR455, 2SR456A, 2SR77A MA882, MA887, NKT217, NKT227 2N59A, 2N599, 2N59C, 2N60A, 2N60B, 2N60C, 2N382, 2N383, 2N461, 2N526A 2N597, 2N551, 2N651A, 2N1008A, 2N1008B, 2N1125, 2N1187, 2N1189, 2N1192 2N1350, 2N1351, 2N1371, 2N1375, 2N1377, 2N1449, 2N1925, 2N1926, 2N2957 2SR765, 2SR292A, 2N3431, MA882, MA887, *HEP254, *GE-2, *FCG102, *TR-05 2N385A, 2N1300, 2N1012, 2N1299, 2N1A05A, *AA2, *DS-46, *TR-08, *FCG133 *NP5, *SK3310 2N385A, 2N1299, 2N1675A 2N60, 2N61, 2N64, 2N109, 2N131, 2N131A, 2N133, 2N133A, 2N185, 2N198 2N196, 2N216, 2N217, 2N241, 2N241A, 2N241A+, 2N270, 2N320, 2N321, 2N395 2N408, 2N414, 2N414A, 2N414B, 2N414C, 2N415, 2N415A, 2N416, 2N427 2N568, 2N569, 2N570, 2N572, 2N582, 2N584, 2N610, 2N664, 2N839, 2N979 2N1171, 2N1265/5, 2N1294, 2N1303, 2N1305, 2N1313, 2N1347, 2N1352 2N1393, 2N1383+, 2N1414, 2N1415, 2N1498A, 2N1498B, 2N1681, 2N1728 2N1748, 2N1788, 2N1793, 2N1965, 2N1866, 2N2188, 2N2799, 2N3323, 2N3324 2N3883, 2SA182, 2SA203, 2SA212, 2SA217, 2SA321, 2SA322, 2SA374, 2SR291 2SR336, 4SV27, 4SZ21, 4M48C, NKT224, SF-T222, SF-T228, 5YL792, T1XK14 *SK3001, *AT20M, *GE-2, *FCG102, *TR-05, *DS-26, *AA1
4	GE-1 GE-2 GE-3	REFER TO SECTION 2 REFER TO SECTION 2 REFER TO SECTION 2

1. Cross reference to a type that has superseded the type to be replaced.
2. Obsolete marking. This type is no longer manufactured.
3. Two slightly different transistors have been manufactured using the same type number, so a plus sign (+) has been added to distinguish between them. Refer to Howard W. Sams Transistor Specifications Manual for details.
4. General-purpose replacement transistors. Section 2 contains further information on these types.
5. Computer-selected substitutes.
6. General-purpose replacement transistors—marked with an asterisk (*)—as recommended by the manufacturer of the replacement.

TRANSISTOR SUBSTITUTES

2A-2N61A

Table with columns: To Replace, Substitute This Type. Contains numerous entries for various transistor types like 2A, 2B, 2C, etc., listing their equivalent substitutes.

TRANSISTOR SUBSTITUTES

2N140+—2N168A+

Table with 3 columns: To Replace, Substitute This Type. Lists various transistor models and their equivalent parts.

TRANSISTOR SUBSTITUTES

2N312-2N346

To Replace	Substitute This Type
-2N312+ 2N315	2N358, 2N358A, 2N635, 25C91 2N315A, 2N316, 2N316A, 2N317, 2N317A, 2N1018, *AA1, *FCG100, *GE-1, *SK3005, *HEP253, *HF12M, *DS25
2N315A	2N316A, *DS26, *HEP253, *SK3004, *GE-2, *AA1
2N316	2N316A, 2N317, 2N317A, *HEP2, *SK3005, *ECG100, *GE-1, *AA1, *DS25, *HF12M
2N316A	*DS26, *AA1, *GE-2, *ECG102, *SK3004, *HEP253
2N317	2N317A, *HEP2, *SK3005, *ECG100, *GE-1, *AA1, *DS25, *HF20M
2N317A	*DS56, *AA1, *GE-9, *ECG100, *SK3005, *HEP2
2N319	2N320, SF, T222, *ECG102, *GE-2, *HEP631, *SK3003, *AA1, *DS-26, *AT20M
2N320	2N321, 2N1478, 2N2375, *AT20M, *DS-26, *AA1, *SK3003, *HEP254, *GE-2, *ECG102
2N321	SF, T223, *ECG120, *GE-2, *HEP254, *SK3003, *AA1, *DS-26, *AT20M
2N322	2N168A, 2N241A, 2N241A, *N2320, 2N321, 2N323, 2N396A, 2N148, 2N414C, 2N654, 2N1097, 2N1098, 2N1382, *2N1383, 2N1414, 2N1415, 2N1478, 2N2375, SF, T222, *AT20M, *DS-26, *AA1, *SK3003, *HEP254, *GE-2, *ECG102, *TR-05
2N323	2N241A, 2N321, 2N357, 2N508, 2N508A, 2N654, 2N654A, 2N1175, 2N1175A, 2N1316, 2N1317, 2N1354, 2N1355, 2N1356, 2N1357, 2N1381, 2N1362, 2N1382, *2N1705, 2N1706, 2N1707, SF, T223, *TR-05, *ECG102, *GE-2, *HEP254, *SK3004, *AA1, *DS-26, *AT20M
2N324	2N359, 2N417, 2N598, 2N599, 2N655, 2N655A, 2N1282, 2N1309, 2N1316, 2N1379, 2N1998, 2N2374, *AA1703, *AT20M, *DS-26, *AA1, *SK3003, *HEP254, *GF-2, *ECG102, *TR-05
-2N325 2N326	25848, AD149, NK7452, *TR-01, *ECG104, *GE-3, *HEP230, *SK3009, *AA4, *DS-52G, *PT40
-2N327	2N327A, 2N327B, 2N1232, 2N1439, 2N144C, 2N2601, SHA753A, *SP70, *DS-25, *SK3005, *GE-2, *ECG100, *TR-28
2N327A	*TR-28, *ECG100, *GE-1, *SK3005, *DS-25
2N327B	2N1232, *ECG129, *TR-28
-2N328	2N328A, 2N328B, 2N330A, 2N721, 2N721A, 2N978, 2N1230, 2N1441, 2N1991, 2N2393, 2N3039, 2N3219, 2N357, 2N4008, FT1746, M4052, SHA7533, *TR-28, *ECG129, *GE-2, *DS-26, *SP70
2N328A	*DS-66, *GE-2, *ECG129, *TR-28
2N328B	2N1233, *TR-28, *ECG129
-2N329	2N727, 2N869, 2N869A, 2N995, 2N1231, 2N2411, 2N2412, 2N2695, 2N2696, 2N2861, 2N2862, 2N2927, 2N3209, 2N3218, 2N3545, 2N3576, 2N3638, 2N3829, 2N3978, 2N4007, 2N4125, 2N5040, 2N5142, 2N5208, 2N5230, 2N5322, 2N5354, 8C250A, 8C253A, 8C253B, 8C260A, 8C263A, 8C2639, FT1746, FT5040, GET3638, GET3638A, GI-3638, MP5363d, SHA7537, TW135, *ECG129, *GE-2, *TR-28, *DS-26, *SP70, *HEP735
2N329A	*DS-39, *DS-26, *TR-28, *GE-2, *ECG129
2N329B	2N3848, 2N3950, 2N3913, 2N4981, 2N4982, 2N5231, *ECG124, *TR-28, *HEP735
-2N330	2N726, 2N865, 2N978, 2N1231, 2N1691, 2N2411, 2N2862, 2N4007, 2N4008, 2N5142, 2N5208, 2N5322, FT1746, GET3638, GET3638A, GI-3638, MP5656J, SHA7537, TW135, *TR-28, *ECG129, *GE-2, *DS-26, *SP70
2N330A	2N328A, 2N328B, 2N1232, 2N1233, 2N1441, SHA753A, SHA753B, *DS-26, *GE-2, *ECG129, *TR-28
2N331	2N382, 2N383, 2N396A, 2N397, 2N414B, 2N414C, 2N526, 2N526A, 2N527, 2N527A, 2N580, 2N597, 2N651, 2N651A, 2N654, 2N654A, 2N124, 2N1189, 2N1189A, 2N1346, 2N1349, 2N1350, 2N1351, 2N1352, 2N1353, 2N1356, 2N1387, 2N1373, 2N1375, 2N1377, 2N1449, 2N1449A, 2N1473, 2N2375, 258403, MM887, SF, T223, *TR-05, *GE-2, *AT20M, *HEP254, *SK3008, *AA1
2N332	2N472, 2N472A, 2N475A, 2N7583, 2N1149, 2N2310, 2N2520, 25C47E, *TR-24, *SK3020, *HEP53, *SN80, *DS-66, *GE-20, *ECG123
2N332A	2N497, 2N756, 2N756A, 2N757, 2N757A, 2N2476, 2N3512, 2N5189, *ECG123, *GE-20, *HEP53, *TR-25
2N333	2N334, 2N475, 2N717, 2N842, 2N1151, 2N2314, *TR-24, *HEP53, *SK3020, *GE-20, *ECG123, *DS-66, *SN80
2N333A	2N334A, 2N551, 2N656, 2N730, 2N742, 2N75d, 2N758A, 2N759, 2N759A, 2N759B, 2N761, 2N1917, 2N2477, 2N3122, 2N3295, 2N5188, 25C30, 25C31, 25C152, PT2940, SE8001, *ECG123, *HEP53, *TR-25
2N334	2N480, 2N543A, 2N717, 2N840, 2N1151, 2N1152, 2N2312, 2N2314, 2N2387, 2N2521, 2N3973, 2N3975, BFY39-1, BSY93, MM6591, *TR-24, *HEP53, *SK3020, *ECG123, *GE-20, *SN80, *DS-66
2N334A	2N656, 2N697, 2N731, 2N742, 2N759, 2N759A, 2N929A, 2N1410, 2N1410A, 2N1907, 2N2951, 2N2952, 2N3015, 2N3122, 2N3256, 2N3326, 2N3641, 2N3642, 25C32, 25C316, 25C116, 25C152, 25C594, 25C651, BSY92, *ECG123, *HEP53, *TR-25
2N335	2N480, 2N543A, 2N708A, 2N718, 2N780, 2N843, 2N916A, 2N1152, 2N1674, 2N2312, 2N2315, 2N2387, 2N2483, 2N2521, 2N2523, 2N3301, 2N3693, 2N3962, 2N3966, 2N3973, 2N3975, 2N4140, 2N4966, 2N4994, 2N5027, 2N5824, 25C318, 25C38B, 25C399, 25C896, HFY39-1, BSY93, EN697, GET2221, MM2483, MM3903, MP53693, MP53826, MP56565, MP6591, FT1001, SF, T223, *TR-24, *HEP53, *SK3020, *ECG123, *GE-20, *DS-66, *SN80
2N335A	2N335B, 2N356, 2N697, 2N731, 2N760, 2N929A, 2N1704, 2N2848, 2N2951, 2N2952, 2N3015, 2N3299, 2N3326, 2N3351, 2N3642, 2N4960, 2N4962, 25C32, 25C352, 25C594, 25C651, BSY92, *GE-20, *ECG123, *SK3020, *HEP53, *TR-25
2N335B	2N656, 2N697, 2N718A, 2N731, 2N929A, 2N2380A, 2N2846, 2N2951, 2N2952, 2N3015, 2N3109, 2N3299, 2N3326, 2N3641, 2N3642, 2N4960, 2N4961, 2N4962, 2N4963, 25C32, 25C199, 25C594, BSY92, FT3567, FT3568, FT3722, SE8002, *TR-25, *HEP53, *ECG123
2N336	2N543, 2N841, 2N916, 2N2432A, 2N2522, 2N3903, 2N3904, 2N3947, 2N3974, 2N3976, 2N4227, 2N5825, 25C993, BFY39-2, EN916, *ECG123, *GE-20, *HEP53, *SK3020, *SN80, *DS-66
2N336A	2N336, 2N760A, 2N930A, 2N930B, 2N1420, 2N1507, 2N1507A, 2N2920, 2N2921, 2N3300, *HEP53, *GE-20, *ECG123
2N337	2N480, 2N1152, 2N1674, 2N3693, 2N3958A, 2N4966, 2N5401, 25C402, 25C403, 25C404, 25C838, 25C839, SE1001, *ECG107, *GE-17, *HEP53, *SN80, *TR-24
2N337A	2N656, 2N697, 2N731, 2N929A, 2N2848, 2N2951, 2N2952, 2N3015, 2N3299, 2N3326, 2N3641, 2N3642, 25C32, 25C352, 25C594, 25C651, BSY92, *TR-25, *HEP53, *GE-17, *ECG108
2N338	2N543, 2N841, 2N916, 2N2432A, 2N2522, 2N3859A, 2N3903, 2N3904, 2N3947, 2N3974, 2N3976, 2N4227, 2N5825, 25C925, 25C943, 2N760, 2N916, *ECG123, *GE-20, *HEP53, *SK3020, *SN80, *DS-66
2N338A	2N338, 2N760A, 2N760B, 2N1507, 2N1966, 2N3643, 2N4960, 2N4962, 25C832, *HEP53, *GE-20, *ECG123
2N339	2N343, 2N343A, 2N343B, 2N1613A, 2N2107, 2N2108, 7A31
2N339A	2N2106, 2N2107
2N340	2N348
2N340A	MM3000
2N341	2N1613B, 2N2102A, 2N3500, MM3008, *HEP713
2N341A	2N1613B, 2N2102A, 2N3500, MM3008
2N342	2N342A, 2N497A
2N342A	2N498A
2N342B	2N498, 2N498A, MM3000
2N343	2N343A, 2N343B, 2N1613A, 2N2108, *AA1
2N343A	2N343, 2N343B, 2N1613A, 2N2108
2N343B	2N1613A, 2N2108
2N344	*AA1, *HEP3, *SK3006, *GE-9, *JR100, *DS-41, *TR-12
2N345	*TR-17, *DS-41, *JR100, *GE-9, *ECG126, *SK3006, *HEP3, *AA1
2N346	*AA1, *HEP3, *SK3006, *ECG126, *GE-9, *JR100, *DS-41, *TR-17

Q1 D1 To Replace	Substitute This Type
2N420 (CONT)	*TR-01
2N420A	2N418, CDT1311, CDT1312, KR6501, *TR-01, *PT50, *DS503, *AA4, *GE-3, *ECG121, *SK3009, *HEP232
2N422	2N382, 2N383, 2N518, 2N526, 2N526A, 2N527, 2N527A, 2N597, 2N651, 2N651A, 2N1008A, 2N1125, 2N1189, 2N1192, 2N1348, 2N1349, 2N1350, 2N1351, 2N1373, 2N1375, 2N1377, 2N1448, 2N1449, 2N2375, 2S8403, MA887, *HEP254, *SK3003, *ECG102, *GE-2, *AA1, *DS-26, *AT20H, *TR-05
2N424	2N424
2N424A	2N315A, 2N316A, 2N426, 2N427, 2N428, 2N1018, *HEP253, *SK3005, *ECG100, *GE-1, *AA1, *HF3M, *DS25
2N426	2N326A, 2N316A, 2N427, 2N428, 2N1017, 2N1018, *DS25, *HF6M, *AA1, *GE-1, *ECG100, *SK3005, *HEP253
2N427	2N316A, 2N428, 2N1017, 2N1018, *HEP2, *SK3005, *ECG100, *GE-1, *AA1, *HF6M, *DS25
2N428	2N1017, 2N1018, *DS25, *HF12H, *AA1, *GE-1, *ECG100, *SK3005, *HEP2
2N438	2N438A, *HEP641, *SK3011, *ECG101, *GE-7, *NR5, *DS-72, *AA2
2N438A	*AA2, *DS-72, *NR5, *GE-7, *SK3011
2N439	2N439A, 2N440, 2N440A, *SK3011, *HEP641, *GE-7, *ECG101, *NR5, *DS-72, *AA2
2N439A	2N440A, *AA2, *DS-72, *NR5, *GE-7, *SK3011
2N440	2N440A, *SK3011, *HEP641, *GE-6, *ECG101, *NR10, *DS-72, *AA2
2N440A	*AA2, *DS-72, *NR10, *ECG100, *GE-6, *SK3011
2N441	2N173, 2N277, 2N278, 2N442, 2N443, 2N2077, 2N2077A, 2N2078, 2N2078A, *SK3012, *HEP231, *GE-4, *ECG105, *PT501, *DS501, *AA5
2N442	2N173, 2N278, 2N443, 2N2076, 2N2076A, *HEP231, *SK3012, *ECG105, *GE-4, *AA5, *DS501, *PT501
2N443	2N173, 2N174, 2N1099, 2N2075, 2N2075A, *PT501, *DS501, *AA5, *GE-4, *ECG105, *SK3012, *HEP23
2N444	2N438A, *HEP641, *SK3011, *ECG101, *GE-7, *AA2, *DS-72, *NR5
-2N444+	2N356, 2N356A, 2N357, 2N357+, 2N358, 2N438, 2N438A, 2N444, 2N585, 2N634, 2N1994, 2SC128, ASY28
2N444A	2N377A, 2N576A, 2N587, 2N1000, 2N1473, 2N1672A, *DS-72, *AA2, *GE-7, *ECG103, *SK3010, *HEP641, *TR-08
2N445	2N439A, 2N446, 2N576, *HEP641, *SK3010, *ECG101, *GE-7, *AA2, *DS-72, *NR5
-2N445+	2N572, 2N579, 2N579+, 2N579A, 2N585, 2N585+, 2N634A, 2N634, 2N635, 2N635A, 2N636, 2N636A, 2N637, 2N637A, 2N645, 2N646, 2N447, 2N557, 2N576, 2N585B, *N634A, 2N635, 2N636, 2N637, 2N1090, 2N1302, 2N1995, 2N1996, 2SC89, 2SC90, 2SC91, 2SC129, ASY29
2N445A	2N385, 2N385A, 2N388, 2N388A, 2N440, 2N440A, 2N446A, 2N635A, 2N636A, 2N1012, 2N1114, 2N21299, 2N1304, 2N1306, 2N1605, 2N1605A, 2N1808, *DS-66, *AA2, *GE-10, *SK3010, *HEP641, *TR-08
2N446	2N440A, *HEP641, *SK3011, *ECG101, *AA2, *DS-72, *NR5
-2N446+	2N375A, 2N358A, 2N440, 2N440A, 2N446, 2N447, 2N558, 2N635, 2N635A, 2N636, 2N636A, 2N1090, 2N1091, 2N1114, 2N1304, 2N1306, 2N1996, 2SC71, 2SC72, ASY29, SF, T298
2N446A	2N388A, 2N447A, 2N636A, 2N1306, 2N1308, *DS-72, *AA2, *ECG103, *GE-7, *SK3010, *HEP641
2N447	2N183, 2N440, 2N440A, 2N557, 2N635, 2N635A, 2N636, 2N1091, 2N1996, 2SC91, *HEP641, *SK3011, *GE-5, *ECG101, *AA2, *DS-72, *NR10, *TR-08
-2N447+	
2N447A	2N388A, 2N1308, *DS-72, *ECG103, *GE-8, *SK3010, *HEP641
2N448	2N94A, 2N166, 2N166A, 2N169, 2N172, 2N312, 2N377, 2N399, 2N439A, 2N447, 2N531/N, 2N532/N, 2N537/N, 2N557, 2N576, 2N585, 2N585+, 2N634A, 2N634, 2N635, 2N635A, 2N636, 2N636A, 2N637, 2N637A, 2N645, 2N646, 2N447, 2N557, 2SC14, 2SC89, 2SC90, 2SC91, 2SC98, 2SC128, 2SC129, ASY28, ASY29, *TR-08, *ECG101, *GE-7, *HEP641, *SK3011, *DS-72, *NR5, *AA2
-2N448+	2N94A, 2N167, 2N167A, 2N169, 2N169A+, 2N312, 2N377, 2N399, 2N439A, 2N447, 2N533/N, 2N557, 2N576, 2N634, 2N634A, 2N635, 2N1090, 2N1995, 2N1996, 2SC14, 2SC90, 2SC91, 2SC98, 2SC129, ASY29
2N449	2N145, 2N169A, 2N440, 2N440A, 2N558, 2N635A, 2N636, 2N636A, 2N797, 2N1091, 2N1114, 2N1306, 2SC72, 2SC90, 2N440, *GE-7, *HEP641, *GE-7, *ECG101, *TR-08
-2N449+	2N145, 2N169A, 2N440, 2N440A, 2N558, 2N635A, 2N636, 2N636A, 2N797, 2N1091, 2N1114, 2N1306, 2SC72, 2SC90, 2SC181
2N450	2N123A, 2N399, 2N399A, 2N397, 2N414, 2N415, 2N415A, 2N416, 2N1115, 2N1171, 2N1284, 2N1305, 2N1307, 2N1347, 2N1355, 2N1356, 2N1357, 2N1681, 2N2375, 2S8186, 2S8188, SF, T228, SYL792, *ECG100, *GE-1, *HEP2, *SK3005, *DS25, *HF6M, *AA1
-2N450+	2N417, 2N598, 2N599, 2N1282, 2N1309, 2N1316, 2N1998, 2N2374
2N456	2N457, 2N1529, 2N1530, 2N2138, 2N2138A, 2N2139, 2N2139A, 2N2143, 2N2143A, 2N2144, 2N2144A, *AA4, *PT40, *DS-503, *SK3009, *HEP230, *GE-3, *ECG104, *TR-01
2N456A	2N456B, 2N457A, 2N457B, *ECG104, *GE-16, *HEP230, *SK3009, *DS-520, *AA4
2N456B	2N457B, *AA4, *DS-503, *SK3009, *HEP230, *GE-3, *ECG104
2N457	2N458, 2N561, 2N1530, 2N1531, 2N2139, 2N2139A, 2N2140, 2N2140A, 2N2144, 2N2144A, 2N2145, 2N2145A, *ECG104, *GE-3, *HEP232, *SK3009, *DS-503, *PT500, *AA4, *TR-01
2N457A	2N457B, 2N458A, 2N458B, *AA4, *DS-503, *SK3009, *HEP232, *GE-3, *ECG104
2N457B	2N458B, *ECG104, *HEP232, *SK3009, *DS-503, *AA4
2N458	2N561, 2N1531, 2N1532, 2N2140, 2N2140A, 2N2141, 2N2141A, 2N2145, 2N2145A, 2N2146A, 2N2146A, *AA4, *PT500, *SK3009, *HEP232, *ECG104, *GE-3
2N458A	2N458B, *GE-3, *ECG104, *HEP232, *SK3009, *AA4
2N458B	*AA4, *SK3009, *HEP232, *ECG121, *GE-3
2N459	*GE-16, *ECG121, *HEP232, *SK3012, *AA4, *PT50, *DS501
2N459A	*ECG121
2N460	2N381, 2N524, 2N525, 2N1446, 2N1447, *ECG102, *GE-2, *DS-26, *AT30M, *AA1, *HEP253, *SK3004
2N461	2N383, 2N652, 2N1190, 2N1449, 2N1997, 2N2000, *SK3004, *HEP253, *AA1, *AT30M, *DS25, *GE-1, *ECG102
-2N462	*ECG102, *GE-2, *DS-26, *AT30M, *AA1, *HEP254, *TR-05
2N464	2N465, *HEP253, *SK3004, *AA1, *AT30M, *DS-26, *GE-2, *ECG102
2N465	2N404A, *HEP253, *GE-2, *DS-26, *AT30M, *AA1, *SK3004, *HEP253
2N466	2N382, 2N383, 2N526A, 2N527, 2N527A, 2N597, 2N651, 2N651A, 2N1008A, 2N1189, 2N1192, 2N1349, 2N1375, 2N1377, 2N1449, 2S8265, MA887, *HEP254, *SK3003, *AA1, *AT30M, *DS-26, *GE-2, *ECG102, *TR-05
-2N467	2N98, 2N1185, 2N1193, 2N1998, 2N2171, 2N2374, 2N3427, MA888, *TR-05, *ECG102, *GE-2, *DS-26, *AT20H, *AA1, *SK3003, *HEP254
2N470	2N471, 2N1199, 2N1268, 2N1271, 2N1387, 2N1472, 2N383A, 2N3843A, 2N4292, 2N4293, 2SC717, D166, MFS918, *TR-21, *SN80, *ECG123, *GE-20, *HEP53
2N471	2N472, 2N757, 2N839, 2N1140, 2N1387, 2N384, 2N3843A, 2N4292, 2N4293, 2SC717, 8X52, D166G, GET700, MFS918, MFS6546, MFS6547, *HEP53, *GE-20, *ECG123, *SN80, *TR-24
2N471A	2N471, 2N472, 2N472A, 2N756, 2N757, 2N839, *TR-24, *DS-66, *GE-20, *HEP53, *SK3020
2N472	2N757, 2N757A, 2N758, 2N839, 2N2310, 2N2520, *HEP544, *HEP53, *GE-20, *ECG123A, *SN80, *TR-25
2N472A	2N472, 2N756, 2N756A, 2N757, 2N757A, 2N758, 2N839, 2N2310, 2N2520, *TR-25, *DS-66, *ECG123A, *GE-20, *HEP53, *SK3020
2N473	2N474, 2N478, 2N479, 2N702, 2N706, 2N706A, 2N706B, 2N709A, 2N743, 2N784, 2N835, 2N947, 2N988,

Q1 Q2	To Replace	Substitute This Type
	2N669	2N376A, 2N1227, COT1310, COT1311, COT1319, *AA4, *ECG121, *GE-3, *HEP230, *SK3009, *PT40, *DS503
	-2N670	*AT100H, *AA1
	-2N671	*AA1, *AT100H
	-2N672	*AT100H, *AA1, *HEP254
	-2N673	*AA1, *AT100H
	2N677	2N677A, 2N1162, 2N1162A, 2N1554, 2N1554A, *PT150, *DS503, *ECG121, *GE-16, *HEP232, *SK3009
	2N677A	2N1164, 2N1164A, 2N1554A, 2N1555A, *SK3009, *HEP232, *GE-16, *ECG121, *DS-503
	2N677B	2N677C, 2N1166, 2N1166A, 2N1556A, *DS503, *ECG121, *GE-16, *HEP232, *SK3009
	2N677C	2N1166, 2N1166A, 2N1556A, *SK3009, *HEP232, *GE-16, *ECG121, *DS503
	2N678	2N678A, 2N1558, 2N1558A, *DS503, *PT150, *ECG121, *GE-16, *HEP230, *SK3009
	2N678A	2N1558A, 2N1559A, *SK3009, *HEP232, *GE-16, *ECG121, *DS-503
	2N678B	2N678C, 2N1560A, *DS-503, *ECG121, *GE-16, *HEP232, *SK3009, *AA4
	2N678C	2N1560A, *AA4, *SK3009, *HEP232, *GE-16, *ECG121, *DS-503
	2N679	2N356A, 2N357A, 2N358A, 2N377, 2N377A, 2N439, 2N439A, 2N563A, 2N634A, 2N1000, 2N1302, 2N1473, 2N1995, *DS-72, *NR5, *ECG101, *GE-7, *HEP641, *SK3011, *AA2, *TR-08
	2N680	*TR-05, *AA1, *SK3004, *HEP3, *GE-2, *ECG126, *AT20M, *DS26
	-2N695	*TR-17, *GE-9, *ECG126, *HF35, *DS41, *SK3006, *HEP3
	2N696	2N2477, 2N3110, 2N3295, 2N5188, 2SC31, 2SC152, PT159, SE8001, *HEP53, *SN80, *ECG123, *TR-25
	2N697	2N2848, 2N3109, 2N4960, 2N4961, *SN80, *ECG123, *GE-20, *HEP53
	2N698	*SN80
	2N699	2N699A, 2N699B, 2N3388, 2N3923, 2N4925, 2SC500, 2SC686, *SN80, *ECG154, *HEP713
	2N699A	2N699B, 2N4925, *ECG154, *SN80
	2N699B	*ECG154
	2N700	*ECG160, *GE-9, *JR200, *DS56, *HEP3, *AA3
	-2N700/18	2N700, *HEP3, *ECG160, *TR-17
	2N700A	*ECG160, *GE-9, *HEP3, *DS-56, *JR200
	2N702	2N702A, 2N702B, 2N706C, 2N708, 2N743A, 2N744A, 2N783, 2N784, 2N834, 2N914, 2N2318, 2N2319, 2N2656, 2N2710, 2N3011, 2N3210, 2N3261, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3648, 2N3649, 2N5187, 2SC321, 2SC356, 2SC427, 2SC595, 2SC601, 2SC689, 40405, 8C173B, GET708, GET914, GET3013, GET3014, GET3646, *EN10, *HEP50, *ECG108, *GE-17, *TR-22
	2N703	2N753, 2N784A, 2N2331, 2N2481, 2N2501, 2N3013, 2N3014, 2N3647, 2N4123, 2N4264, 2SC67, 2SC68, 2SC601A, 2SC639, 2SC764, 85W82, GET2369, PT720, *TR-22, *GE-17, *ECG108, *HEP50, *EN10
	2N705	*JR200, *DS56, *HEP3, *GE-9, *AA3
	2N705A	2N705, 2N861, 2N863, 2N978, 2N2411, 2N2862, 2N2969, 2N3209, 2N3217, 2N3218, 2N3341, 2N3546, 2N3978, 2N4007, 2N5056, 2N5208, 2N5332, 8C250A, 8C253A, 8C253B, 8C260A, 8C263A, 8C263B, C9082, C9084, GET3368, GET3638A, GI-3638, MP5680, SA411, TH135, *AA3, *GE-9, *HEP3, *DS56, *JR200
	2N706	2N706A, 2N706B, 2N706C, 2N708, 2N743A, 2N744A, 2N783, 2N784, 2N834, 2N835, 2N914, 2N2205, 2N2318, 2N2319, 2N2368, 2N2656, 2N2710, 2N3011, 2N3210, 2N3261, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3648, 2N4137, 2N5030, 2N5187, 2SC321, 2SC356, 2SC595, 40405, GET178, GET914, GET3013, GET3014, GET3646, *KT218, *MM1941, *MT1038, *MT1038A, *MT1039, *PT7260, *SN60, *HEP50, *GE-17, *ECG108, *TR-22
	-2N706/46	D26G-1, *TR-22, *HEP50
	-2N706/51	D26G-1, *TR-22
	2N706A	2N706B, 2N706C, 2N708, 2N743A, 2N744A, 2N783, 2N784, 2N834, 2N914, 2N2318, 2N2319, 2N2656, 2N2710, 2N3011, 2N3210, 2N3261, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3648, 2N5187, 2SC321, 2SC356, 2SC595, 40405, GET708, GET914, GET3013, GET3014, GET3646, *TR-21, *HEP50, *ECG108, *GE-17, *SN60
	-2N706A/46	*HEP50, *TR-21, *SN60
	-2N706A/51	*TR-21, *HEP50
	2N706B	2N706A, 2N706C, 2N708, 2N743A, 2N744A, 2N783, 2N784, 2N834, 2N914, 2N2318, 2N2319, 2N2656, 2N2710, 2N3011, 2N3210, 2N3261, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3648, 2N5187, 2SC321, 2SC356, 2SC595, 40405, GET708, GET914, GET3013, GET3014, GET3646, *HEP50, *TR-21, *GE-17, *ECG108
	-2N706B/46	*TR-21, *HEP50
	-2N706B/51	*TR-21
	2N706C	2N706B, 2N743A, 2N744A, 2N914, 2N2220, 2N2521, 2N2710, 2N2952, 2N3210, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3648, 2N3973, 2N3975, 2SC321, 2SC356, 2SC647, *F3641, *F3642, *F3646, *HEP50
	2N707	*TR-25, *HEP50, *ECG108, *GE-17
	2N707A	*ECG123, *HEP50, *TR-25
	2N708	2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2501, 2N2547, 2N3013, 2N3014, 2N3210, 2N3301, 2N3605A, 2N3606A, 2N3946, 2N4962, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, *F3641, *F3642, *GET708, GET914, GET2221, GET2369, GET3013, GET3014, GET3646, *MM2483, *MM3903, *HEP50, *GE-17, *SN60
	-2N708/46	*HEP50
	-2N708/51	MM3903
	2N708A	2N915, 2N2847, 2N3301, 2N3946, 2N4962, *F3641, *F3642, *GET2221, *GET2221A, *MM2483, *MM3903, *HEP50, *GE-17
	2N709	2N2475, 2N278A, 2N3959, 2N3960, 2N5200, 2N5201, *GE-17, *ECG108, *HEP50, *EN10
	2N709A	2N2476, 2N3632, 2N3959, 2N3960, 2N5200, 2N5201, *MT1060A, *ECG108, *GE-17, *HEP50
	2N710	2N559, 2N705, 2N828, 2N960, 2N968, *HEP3, *GE-9, *ECG160, *JR200, *DS56, *AA3
	2N711	2N711A, 2N711B, 2N829, 2N964, 2N964A, 2N965, 2N966, 2N967, 2N972, 2N973, 2N974, 2N985, 2N2401, 2SA451, *HEP3, *GE-9, *ECG160, *JR200, *DS56, *AA3
	2N711A	2N711B, 2N829, 2N838, 2N964, 2N964A, 2N972, 2N985, 2N2401, *AA3, *DS56, *JR200, *ECG160, *GE-9, *HEP3
	2N711B	2N838, 2N3323, 2N3324, 2N3325, *HEP3, *GE-9, *ECG160, *JR200, *DS56, *AA3
	2N717	2N730, 2N731A, 2N742, 2N758A, 2N759A, 2N759B, 2N2395, 2N2515, 2N2521, 2N2952, *TR-25, *HEP50, *ECG108, *GE-17, *EN10
	2N718	2N718A, 2N731, 2N736A, 2N736B, 2N2356, 2N2516, 2N4962, 2N4963, *F3567, *F3568, *ECG108, *GE-17, *EN10, *HEP736
	2N718A	2N736A, 2N870, 2N910, *EN10, *GE-17, *ECG108
	2N719	2N719A, 2N738, 2N2518, 2N4390, 40354, *TIS101
	2N719A	2N2518
	2N720	2N720A, 2N739, 2N740, 2N740A, 2N2519, *SE7016
	2N720A	2N2519
	2N721	2N721A, 2N2393, *ECG159, *GE-21, *SP70, *HEP52, *TR-28
	2N721A	*TR-28, *HEP52, *SP70, *GE-21, *ECG159
	2N722	2N722A, 2N2394, 2N2603, 2N3581, *ECG159, *GE-21, *SP70, *HEP52, *TR-28
	2N722A	*TR-28, *HEP52, *SP70, *GE-21, *ECG159
	-2N725	*HF12M, *DS25, *GE-5, *HEP3, *SK3008, *AA1
	2N726	*HEP52, *GE-21, *ECG106, *SP70, *TR-19
	2N727	2N869A, 2N2412, 2N3905, *MM3905, *TR-19, *SP70, *ECG106, *GE-21, *HEP52

TRANSISTOR SUBSTITUTES

2N728—2N823

Q1 D1	To Replace	Substitute This Type
	2N728	2N729,*HEP50,*GE-20,*ECG123,*SN80,*TR-25
	2N729	2N728,*TR-25,*SN80,*ECG123,*GE-20,*HEP50
	2N730	2N742,2N758A,2N759A,2N759B,2N2952,*TR-25
	2N731	2N718A,2N736A,2N929A,2N4962,2N4963,FT3567,FT3568
	2N734	*TR-25
	2N734A	2N2463,*TR-25
	2N735	2N718A,2N736,2N870,2N910,2N2221A,2N4963,FT3567,FT3568,TN54
	2N735A	2N718A,2N870,2N911,2N2459,2N2464,2N2515,2N4963,*TR-25
	2N736	2N871,2N910,2N956,2N2645,2N4963,FT3569,TN54
	2N736A	
	2N736B	2N2461,2N2462,2N2465,2N2466,2N2516
	2N738	2N4390,40354, T1S101,*ECG154
	2N738A	
	2N739	2N740,2N740A,*ECG154
	2N739A	*ECG154
	2N740	*ECG154
	2N740A	*ECG154
	2N741	2N741A,2N828,2N828A,2N960,2N968,*ECG160,*GE-9,*HEP3,*SK3006,*JR200,*DS41,*AA3
	2N741A	*AA3,*DS41,*JR200,*HEP3,*GE-9,*ECG160
	2N742	*ECG123,*HEP50,*TR-25
	2N743	2N2318,2N2319,2N2656,*2N3011,2N5187,2SC595,*ECG108,*GE-17,*HEP50,*TR-21,*EN10
	2N743A	2N744,*EN10,*GE-17,*ECG108
	2N744	2N4264,PT720,*ECG108,*GE-17,*EN10,*HEP50
	2N744A	2SC639,2SC764,MM2483
	2N753	2N2501,2N3013,2N3014,*2N4123,2N4264,2SC67,2SC68,2SC601N,2SC639,2SC764,PT720,*SN60,*TR-24,*GE-17,*ECG123A,*HEP50
	2N754	2N717,2N730,2N735A,2N742,2N758A,2N759A,2N759B,2N2312,2N2314,2N2395,2N2515,2N2521,2N2952,2N3973,2N3975,8S993,MP56591,*HEP50,*ECG123A
	2N755	2N719,2N759A,2N758,2N2313,2N2455,2N2463,2N2518,2N4390,2N5184,MP56590
	2N756	2N756A,2N757,2N757A,*ECG108,*GE-17,*HEP50,*TR-25,*EN10
	2N756A	2N757A,*TR-25,*HEP50,*ECG123
	2N757	2N757A,2N758,2N758A,2N759B,*ECG108,*GE-17,*HEP50,*TR-25,*EN10
	2N757A	2N758A,2N759B,*TR-25,*HEP50,*ECG123
	2N758	2N742,2N758A,2N759,2N759A,2N759B,*ECG108,*GE-17,*HEP50,*TR-25,*EN10
	2N758A	2N742,2N759A,2N759B,*TR-25,*HEP50,*ECG123
	2N758B	2N2520,*ECG123,*HEP50,*TR-25
	2N759	2N742,2N759A,*TR-25,*HEP50,*ECG108,*GE-17,*SN60
	2N759A	2N742,*ECG123,*HEP50,*TR-25
	2N759B	2N742,2N759A,*TR-25,*HEP50,*ECG123
	2N760	2N760A,2N760B,*ECG108,*GE-17,*HEP50,*SN60
	2N760A	2N760B,*HEP50,*ECG123
	2N760B	2N760A,*ECG123,*HEP50
	2N761	2N656,2N742,2N758A,2N759A,2N759B,*HEP50,*ECG108,*GE-17,*EN10,*TR-25
	2N762	*EN10,*GE-17,*ECG108,*HEP50
	2N766	2N711A,2N769,2N828,2N846A,2N960,2N961,2N968,2N965,2N976,2N984,2N2796,2N3322,2SA972,2SA450,*HEP3,*ECG160,*GE-9,*JR200,*DS56,*AA3
	2N769	2N976,2N3320,2N3322,*AA3,*DS56,*JR200,*GE-9,*ECG160,*HEP3
	2N779A	*AA3,*DS56,*JR200,*HEP3,*GE-9,*ECG160
	2N780	2N708A,2N718,2N731,2N760,2N916,2N916A,2N2315,2N2396,2N2483,2N2523,2N2847,2N3301,2N3641,2N3642,2N3903,2N3946,2N3974,2N3976,2N4140,2N4227,2N4962,2N5027,2N5824,2SC318,EN697,FT3641,FT3642,GET2221,MM2483,MM3903,*EN10,*HEP50,*ECG107,*GE-17
	-2N781	2N829,2N964,*2N972,MKT221,MKT228,*GE-2,*ECG160,*HEP3,*SK3004,*JR200,*DS26,*TR-05
	-2N782	2N828,2N960,2N961,2N962,2N968,2N969,2N970,*TR-05,*DS26,*JR200,*HEP3,*ECG160,*GE-2
	2N783	2N706C,2N708,2N743A,2N744A,2N834,2N914,2N2220,2N2521,2N2710,2N2952,2N3210,2N3261,2N3510,2N3511,2N3605A,2N3606A,2N3648,2N3973,2N3975,2SC321,*0405,GET708,GET914,GET3013,GET3014,GET3646,MP56532,*GE-17,*HEP50,*EN10
	2N784	2N708,2N708A,2N744A,2N784A,2N914,2N2318,2N2319,2N2481,2N2710,2N3011,2N3013,2N3014,2N3210,2N3261,2N3510,2N3511,2N3605A,2N3606A,2N3647,2N3648,2N4123,2N4264,2SC67,2SC321,2SC356,2SC595,8S982,GET708,GET914,GET2369,GET3013,GET3014,GET3646,*EN10,*HEP50,*GE-17
	2N784A	2N708A,2N916,2N916A,2N2221,2N2481,2N2501,2N2539,2N2845,2N3013,2N3014,2N3115,2N3301,2N3647,2N3946,2N4951,2N4962,2N5144,2N5368,2SC67,2SC68,2SC639,2SC764,8S982,FT3641,FT3642,GET2221,GET2369,GI-3641,MM3903,*GE-17,*TR-05,*HEP50,*EN10
	-2N784A/46	2N3013,2N3014,2N3647,MM3903,*HEP50
	-2N784A/51	2N3013,2N3014,2N3647,MM3903
	2N794	2N711,2N711A,2N711B,2N795,2N796,2N829,2N964,2N964A,2N965,2N966,2N967,2N972,2N973,2N974,2N985,2N2400,2N2401,2SA331,2SA451,*GE-9,*HEP3,*JR100,*DS56,*AA3
	2N795	*AA3,*DS56,*JR100,*HEP3,*GE-9
	2N796	2N827,*GE-9,*HEP3,*JR100,*DS56,*AA3
	2N797	*DS-72,*NR5,*HEP641,*GE-7,*ECG103
	-2N799	*ECG102,*GE-2,*HEP254,*HF12H,*DS-26,*AA1,*TR-05
	-2N800	*TR-05,*AA1,*DS-26,*HF12H,*GE-2,*ECG102
	-2N801	*ECG100,*GE-1,*HF20H,*DS-25,*AA1,*HEP254,*SK3005
	-2N802	*SK3005,*AA1,*DS25,*HF20H,*GE-1,*ECG100
	-2N803	*GE-1,*HF12H,*DS-25,*AA1,*SK3005,*HEP254
	-2N804	*SK3005,*AA1,*DS-25,*HF12H,*GE-1,*ECG158
	-2N805	*ECG158,*GE-1,*HF20H,*DS-25,*AA1,*SK3005,*HEP254
	-2N806	*SK3005,*AA1,*DS-25,*HF20H,*GE-1,*ECG158
	-2N807	*ECG102A,*GE-1,*HF20H,*DS-25,*AA1,*SK3005,*HEP254
	-2N808	*SK3005,*AA1,*DS-25,*HF20H,*GE-1,*ECG102A
	-2N809	*ECG100,*GE-1,*HF12H,*DS-25,*AA1,*SK3005,*HEP254
	-2N810	*SK3005,*AA1,*DS-25,*HF12H,*GE-1,*ECG100
	-2N811	*ECG100,*GE-1,*HF12H,*DS-25,*AA1,*SK3005,*HEP254
	-2N812	*SK3005,*AA1,*DS-25,*HF12H,*GE-1,*ECG100
	-2N813	*ECG102A,*GE-1,*HF20H,*DS-25,*AA1,*SK3005,*HEP254
	-2N814	*SK3005,*AA1,*DS-25,*HF20H,*GE-1,*ECG102A
	-2N815	*ECG102A,*GE-6,*NR5,*DS-72,*AA2,*SK3011,*HEP254,*TR-08
	-2N816	*TR-08,*SK3011,*AA2,*DS-72,*NR5,*GE-6,*ECG102A
	-2N817	*SK3005,*GE-6,*NR5,*DS-72,*AA2,*SK3011,*HEP254,*TR-08
	-2N818	*TR-08,*SK3011,*AA2,*DS-72,*NR5,*GE-6,*ECG158
	-2N819	*ECG102A,*GE-6,*NR5,*DS-72,*AA2,*SK3011,*HEP254
	-2N820	*SK3011,*AA2,*DS-72,*NR5,*GE-6,*ECG102A
	-2N821	*ECG101,*GE-0,*NR10,*DS-72,*AA2,*SK3011,*HEP641
	-2N822	*HEP641,*SK3011,*AA2,*DS-72,*NR10,*GE-0,*ECG101
	-2N823	*ECG101,*GE-6,*NR10,*DS-72,*AA2,*SK3011,*HEP641,*TR-08

Q1 #1	To Replace	Substitute This Type
-2N824		*TR-08,*HEP641,*SK3011,*AA2,*DS-72,*NR10,*GE-0,*ECG101
-2N825		*ECG102,*GE-1,*HF12H,*AA1,*SK3011,*HEP254
-2N826		*AA1,*HF12H,*DS-25,*GE-1,*ECG102
2N827		*HEP3
2N828		2N960,2N968,*HEP3,*ECG160,*GE-9,*DS56,*JR200,*AA3
2N828A		2N828,2N960,2N968,*ECG160,*HEP3
2N829		2N964,2N972,2N985,*HEP3,*ECG160
2N834		2N708,2N743A,2N744A,2N914,2N2170,2N3210,2N3261,2N3510,2N3511,2N3605A,2N3606A,2N3648,2SC321,40405,GET708,GET914,GET3013,GET3014,GET3646,MP5652,*ECG108,*GE-17,*HEP50,*SN80
2N834A		2N743A,2N744A,2N2170,2N3648,*HEP50,*ECG123A
2N835		2N708,2N743A,2N744A,2N834,2N914,2N2318,2N2319,2N2368,2N2656,2N2710,2N3011,2N3210,2N3261,2N3510,2N3511,2N3605A,2N3606A,2N3648,2N4137,2N5030,2N5187,2SC321,2SC595,40405,GET708,GET914,GET3013,GET3014,GET3646,MT1218,MM1941,MT1038,MT1038A,MT1039,PT2760,*ECG123A,*GE-17,*HEP50,*TR-22,*EN10
2N837		2N711,2N711A,2N711B,2N829,2N2400,2SA450,2SB185,*TR-05,*HEP3,*AT20M,*DS-26,*GE-2,*ECG160
2N838		*ECG160,*HEP3
2N839		2N717,2N730,2N757,2N757A,2N758,2N758A,2N759B,2N842,2N2314,2N2395,MP56544,*HEP50,*ECG123A,*GE-17,*EN10,*TR-25
2N840		2N708A,2N718,2N731,2N700,2N843,2N910A,2N929A,2N2312,2N2315,2N2387,2N2388,2N2483,2N2521,2N2523,2N2847,2N2952,2N3301,2N3641,2N3642,2N3646,2N3946,2N3973,2N3975,2N4140,2N4994,2N5027,2N5824,2SC318,2SC896,BFY39-1,BSY93,EN697,FT3641,FT3642,GET2221,MM2483,MM3903,MP53693,MP53826,MP56565,MP56591,PET1001,TT587,*TR-25,*EN10,*GE-17,*ECG123A,*HEP50
2N841		2N909,2N930A,2N930B,2N2484,2N2484A,2N2522,2N2524,2N3302,2N3904,2N3947,2N4141,2N4995,2N5028,2N5826,2SC316,BC107,BC107A,BC171A,BCY59A,FT3643,GET2222,MM2484,MM3904,MP53694,MP53827,MP56566,PET1002,PT2195,*ECG108,*GE-17,*EN10
2N842		2N717,2N730,2N742,2N758,2N758A,2N759,2N759A,2N759B,2N804,2N2314,2N2395,2N2521,*HEP50,*EN10,*GE-17,*ECG123A,*TR-25
2N843		2N760,2N916,2N916A,2N3862,2N3903,2N3974,2N3976,2N4227,2N4951,2N4962,2N5027,2N5144,2N5368,2N5824,2SC318,MM3903,MP5A05,*ECG108,*GE-17,*EN10,*HEP50
2N846A		2N829,2N838,2N964,2N964A,2N972,2N985,2N2795,2N2796,2N3320,*AA3,*DS56,*JR200,*HEP3,*GE-9
-2N849		2N2319,2N3261,2N3510,2N3511,2N3648,2N5187,2SC356,40405,*TR-21,*EN10,*DS-81,*HEP50,*GE-17
-2N850		2N3013,2N3014,*ECG108,*GE-17,*EN10,*TR-24
-2N851		2N2319,2N5187,*TR-21,*GE-17,*ECG108,*HEP50
-2N852		*ECG108,*GE-17,*EN10
2N858		*SP70,*DS56,*GE-21,*HEP52,*TR-28
2N859		2N2946A,2N3840,2N4981,2N5231,*TR-28,*HEP52,*GE-21,*DS56,*SP70
2N860		2N2274,2N2969,2N2971,2N4008,MM4052,*SP70,*DS56,*GE-21,*ECG159,*HEP52,*TR-19
2N861		2N2269,2N4008,*TR-19,*HEP52,*ECG159,*GE-21,*DS56,*SP70
2N862		2N861,2N2969,2N2971,MM4052,*SP70,*DS56,*GE-21,*ECG159,*HEP52,*TR-19
2N863		2N865,2N135,*TR-19,*HEP52,*ECG159,*GE-21,*DS56,*SP70
2N864		2N865,2N4006,2N4007,2N5141,*SP70,*DS56,*GE-21,*ECG159,*HEP52,*TR-19
2N865		*ECG106,*GE-21,*HEP52,*TR-30,*DS56,*SP70
2N869		*ECG106,*GE-21,*HEP52,*SP70,*TR-19
2N869A		*TR-19,*HEP52,*ECG106
2N870		2N740A,2N910
2N871		
2N872		2N930A,2N930B,FT3643,*ECG123,*HEP50
2N873		2N871
2N874		2N870
2N875		2N708,2N708A,2N744A,2N784A,2N916,2N916A,2N2501,2N2847,2N3013,2N3014,2N3210,2N3301,2N3605A,2N3606A,2N3946,2N4962,2N4962,2SC321,2SC639,2SC764,FT3641,FT3642,GET708,GET914,GET2221,GET2369,GET3013,GET3014,GET3646,MM2483,MM3903,*SK60,*GE-17,*ECG108,*HEP50
-2N914/46		*HEP50
-2N914/51		2N3013,2N3014,MM3903,*HEP56,*ECG108,*GE-11,*DS-81
2N915		2N2461,2N2465,2N4963
2N916		2N3643,2N3947,2N4962,*HEP50,*ECG108,*GE-17,*EN10
2N916A		2N916,2N2847,2N3643,2N4962,*ECG108,*HEP50
2N917		2N918,2N3570,2N4253,2N5053,2N5054,2SC251,2SC251A,2SC252,2SC253,2SC602,BF232,MT1061,TT556,TT557,*HEP56,*SK3019,*GE-17,*EN10,*DS74,*AF4
2N917A		2N3570,2N3600,2N4252,2N4253,2SC567,2SC568,2SC602,40295,40413,BF168,BF173,BFX00,MT1061A,*HEP56
2N918		2N917,2N3570,2N4253,MT1061,*HEP56,*SK3019,*AF4,*DS-74,*EN10,*GE-17,*ECG108
-2N918/51		2N2729,MT1038,MT1038A,MT1039,MT1060
-2N919		BSY63,*HEP50,*GE-17,*EN10
-2N920		BSY62,*EN10,*GE-17,*HEP50
-2N921		BSX48,BSX49,*HEP50,*GE-17,*ECG123A,*EN10
-2N922		*EN10,*ECG123A,*GE-17,*HEP50
2N923		2N925,2N3252,*GE-21,*ECG159,*SP70,*DS26,*TR-28
2N924		2N926,2N3219,2N3979,*TR-28,*DS26,*SP70,*ECG159,*GE-21,*HEP52
2N925		2N927,*HEP52,*GE-21,*ECG159,*SP70,*DS26,*TR-28
2N926		2N928,*TR-28,*DS26,*SP70,*ECG159,*GE-21,*HEP52
2N927		*HEP52,*GE-21,*ECG159,*SP70,*DS26,*TR-28
2N928		*SK3841,*TR-28,*DS26,*SP70,*ECG159,*GE-21,*HEP52
2N929		2N860,2N312,2N4252,2N916A,2N929A,2N2315,2N2396,2N2432A,2N3903,2N3946,2N3974,2N3976,2N4227,2N4962,2N5027,2N5824,2SC318,MM3903,*HEP50,*GE-20,*ECG123A,*SN80,*DS-66
2N929A		2N718A,2N736A,2N4962,2N4963,*HEP50,*SN80,*ECG123A,*GE-20
2N930		2N909,2N930A,2N930B,2N2388,2N2484A,2N2596,2N3302,2N5826,2SC316,2SC587,2SC587A,4157B,BC107,BC171A,BC171B,BCY59A,BCY59B,BFY39-3,FT3643,GT-3566,MM2484,*GE-20,*SN80,*DS-66,*HEP50
2N930A		2N930B,*HEP50,*EN10,*GE-17,*ECG108
2N930B		2N930A
2N935		2N936,*HEP52,*SP70,*DS-66,*TR-25,*GE-20
2N936		*GE-20,*TR-25,*DS-66,*SP70,*HEP52
2N937		*HEP52,*SP70,*DS-66,*TR-24,*GE-20
2N938		2N939,*TR-25,*DS-66,*HEP52
2N939		*HEP52,*DS-66,*SP70,*TR-25,*GE-20
2N940		*GE-20,*TR-25,*SP70,*DS-66,*HEP52
2N941		*HEP52,*DS56,*SP70,*TR-19,*GE-20

TRANSISTOR SUBSTITUTES

2N942-2N1021

To Replace	Substitute This Type
2N942	2N941,*GE-20,*TR-19,*SP70,*DS56,*HEP52
2N943	2N944,2N945,*HEP52,*DS26,*SP70,*TR-28,*GE-20
2N944	2N943,2N945,*GE-20,*TR-28,*SP70,*DS26,*HEP52
2N945	*HEP52,*DS26,*SP70,*TR-28,*GE-20
2N946	*GE-20,*SP70,*DS26,*HEP52
2N947	2N2318,2N2656,2N3011,2N5418,MPSH02,PT2760,*HEP50,*SP70,*GE-20,*ECG123A,*TR-21
-2N955	2N797,*ECG101,*GE-11,*NR700,*DS81,*HEP641
-2N955A	2N797,*HEP641,*DS81,*NR700,*GE-11,*ECG101
2N956	2N871,2N2645,*HEP736
2N957	2N916,2N916A,2N501,2N2847,2N3013,2N3014,2N3903,2N3946,2N3974,2N3976,2N4123, *TR-24,2N4962,2N5072,2SC67,2SC68,2SC601N,2SC639,2SC764,MM3903,*HEP55,*ECG123A, *TR-24
2N960	*ECG160,*GE-9,*HEP3,*JR200,*DS56,*AA3
2N961	2N960,*ECG160,*GE-9,*HEP3,*AA3,*DS56,*JR200
2N962	2N960,2N961,*ECG160,*GE-9,*HEP3,*JK200,*DS56,*AA3
2N963	2N828,2N960,2N961,2N962,2N968,2N969,2N970,2SA450,*HEP3,*DS56,*JR200,*GE-9, *ECG160
2N964	*ECG160,*GE-9,*JR200,*DS56,*HEP3,*AA3
2N964A	2N827,*ECG160,*GE-2,*HEP3,*DS56
2N965	2N964,*DS56,*JR200,*HEP3,*GE-9,*ECG160
2N966	2N964,2N965,*ECG160,*GE-9,*HEP3,*JR200,*DS56,*AA3
2N967	2N964,2N964A,2N965,2N966,2N972,2N973,2N974,2N985,2N2402,2SA451,*DS56,*JR200, *HEP3,*GE-9,*ECG160
2N968	2N828,2N960,*ECG160,*GE-9,*HEP3,*JR200,*DS56,*AA3
2N969	2N828,2N960,2N961,2N968,*AA3,*DS56,*JR200,*HEP3,*GE-9,*ECG160
2N970	2N828,2N960,2N961,2N962,2N968,2N969,*ECG160,*GE-9,*HEP3,*JK200,*DS56,*AA3
2N971	2N828,2N960,2N961,2N962,2N968,2N969,2N970,*AA3,*DS56,*JR200,*HEP3,*GE-9,*ECG160
2N972	2N964,2N965,*ECG160,*GE-9,*HEP3,*JR200,*DS56,*AA3
2N973	2N964,2N965,2N972,2N985,*AA3,*DS56,*JR200,*HEP3,*GE-9,*ECG160
2N974	2N964,2N965,2N966,2N972,2N973,2N985,*ECG160,*GE-9,*HEP3,*JR200,*DS56,*AA3
2N975	2N964,2N965,2N966,2N972,2N973,2N974,2N985,*AA3,*DS56,*JR200,*HEP3,*GE-9,*ECG160
2N976	2N838,*ECG160,*GE-9,*HEP3,*JR200,*CS56,*AA3
2N978	*TR-19,*ECG126,*HEP52,*JR200,*AA3
2N979	2N898,2N980,2N2796,2N3323,2N3324,2N3325,*AA3,*JR200,*DS25,*HEP3,*ECG160,*GE-1
2N980	2N898,2N979,2N2796,2N3323,2N3324,2N3325,*ECG160,*HEP3
2N982	2N827,2N2795,*ECG160,*GE-9,*HEP3,*SK3006,*DS41,*JR200,*AA3
2N983	2N794A,2N964,2N972,2N982,2N985,2N2402,2N2795,2N3320,*AA3,*JR200,*DS41, *SK3006,*HEP3,*GE-9,*ECG160
2N984	2N7118,2N929,2N838,2N864A,2N964,2N964A,2N972,2N982,2N983,2N985,2N2795,2N2796, 2N3320,*ECG160,*GE-9,*HEP3,*SK3006,*DS41,*JR200,*AA3
2N985	*AA3,*JR200,*DS26,*HEP3,*GE-2,*ECG160
2N987	*GE-9,*HEP3,*SK3006,*DS41,*JR200,*AA3
2N988	2N744,2N988,2N2318,2N2319,2N2615,2N2656,2N3011,2N4264,2N5030,2N5200,2N5201, 2N5418,2SC595,*MPS6568,*MPS6568A,*MPS6569,*MPS6570,*MPSH02,*MPSH30,*MPSH31,PT720,PT760, *EN10,*HEP50,*GE-17,*ECG108,*TR-21
2N989	2N744,2N988,2N2318,2N2319,2N2615,2N2656,2N3011,2N4264,2N5030,2N5200,2N5201, 2N5418,2SC595,*MPS6568,*MPS6568A,*MPS6569,*MPS6570,*MPSH02,*MPSH30,*MPSH31,PT720,PT760, *TR-21,*ECG108,*GE-17,*HEP50,*EN10
2N990	2N987,2N993,*JR200,*DS41,*HEP3,*SK3006,*GE-9,*AA3
2N993	2N987,2N990,*AA3,*GE-9,*ECG160,*SK3005,*HEP3,*DS41,*JR200
2N995	2N859A,2N3209,2N3545,2N3576,2N5354,*TR-19,*GE-21,*ECG106,*HEP52,*SP70
2N996	2N869A,2N995,2N3209,2N3248,2N3949,2N3546,2N3576,2N4209,2N5056,2N5057,2N5354, *MM2894,*TR-19,*ECG106,*HEP52
2N1000	*TR-08,*HEP641,*SK3011,*ECG101,*GE-6,*NR10,*DS-72,*AA2
-2N1005	2N702,2N706,2N706A,2N706B,2N743,2N784,2N835,2N947,2N1269,2N1272,2N1472,2N2205, 2N2616,2N2729,2N2921,2N2926-BRN,2N3544,2N3662,2N3663,2N3843,2N3843A,2N3854, 2N3854A,2N4292,2N4293,2N4421,2N5130,2SC387,2SC455,2SC546,2SC546B,2SC674,2SC684, 2SC717,2SC772,D1866,EN918,G1-3605,G1-3606,G1-3607,MM709,MM176B,MM1941,MPS706, MPS706A,MPS18-BRN,MPS2521,2N615,2N6569,2N6571,MPS540,MPS542,*MPS6548,MT1038, MT1038A,MT1039,PT1060,PEP3001,PEP3011,SE1010,SE3002,SE5025,T1563,T1564,*ECG108, *GE-17,*TR-21,*DS-81,*EN10,*HEP56
-2N1006	2N744,2N753,2N2569,2N2570,2N2764,2N2923,2N3298,2N3394,2N3633,2N3845,2N3845A, 2N3855,2N3855A,2N3858,2N3959,2N3960,2N4264,2N5132,2N5200,2N5201,2SC104A,2SC105, 2SC400,2SC426,2SC459,2SC460,2SC461,2SC537,2SC545,2SC645,2SC716,4023A,BSY61, G1-2712,G1-2714,G1-2716,MPS2926-LRG,MPSH10,*MPSH11,PEP3002,PT720,SE3005,*HEP53, *TR-24
-2N1007	2N301,2N301A,2N350,2N350A,2N351A,2N419,2N663,2N2836,2S884,2S8284,2S8425,CDT1320, SF-T213,SF-T214,SF-T238,SF-T239,*TR-01,*HEP230,*SK3009,*PT25,*DS503,*GE-3, *ECG10A,*AA4
2N1008	2N598,2N1307,2N1309,2N1316,2N1317,2N1998,*AA1,*ECG102,*GE-2,*DS-26,*ATZ0H, *HEP254
2N1008A	2N383,2N652,2N1190,2N1449,2N1997,2N2000,*HEP254,*ATZ0H,*DS-26,*GE-2,*ECG102,*AA1
2N1008B	*AA3,*ECG102,*GE-2,*DS-26,*ATZ0H,*HEP254
2N1010	2N445,2N445A,2N447,2N447A,2N450,2N450A,2N450B,2N450C,2N450D,2N450E,2N450F,2N450G,2N450H, 2N1302,2N1995,2N1996,2SC13,2SC14,2SC89,2SC90,2SC91,2SC129,ASY29,*TR-08,*AA2, *HEG103A,*GE-8,*DS56,*NA30,*SK3011,*HEP641
2N1010+	2SC179,2SD75
2N1011	2N1541A,2N1542A,2N1546A,2N1547A,2N3617,2N3618,2N4242,2N4245,*HEP232,*SK3009, *PT150,*DS503,*GE-3,*ECG121,*AA4
2N1012	*AA2,*ECG101,*GE-6,*DS-72,*NA30,*SK3011,*HEP641,*TR-08
-2N1014	CQT1077,*HEP232,*SK3009,*PT40,*DS503,*GE-3,*ELG121,*AA4
2N1015	
2N1015B	
2N1015C	
2N1015D	2N1015E,2N1016D,2N1016E
2N1015E	
2N1016	
2N1016A	
2N1016B	
2N1016C	2N1016D
2N1016D	2N1015E,2N1016E
2N1016E	2N1015E
2N1017	*AA1,*GE-9,*MF20H,*SK3011,*HEP2
2N1018	2N428,2N1017,*HEP2,*SK3011,*JR100,*GE-6
2N1021	2N459A,2N1021A,2N1022,2N1022A,2N1537,2N1538,2N1542A,2N1547A,2N3618,

Q1 51	To Replace	Substitute This Type
	2N1021 (CONT)	*HEP232, *DS503, *PT50, *ECG121, *GE-3, *AA4
	2N1021A	2N1022A, *AA4, *GE-3, *ECG121, *DS503, *HEP232, *SK3009
	2N1022	2N1022A, 2N1538, *SK3009, *HEP232, *DS503, *PT50, *ECG121, *GE-3, *AA4
	2N1022A	*AA4, *GE-3, *ECG121, *DS503, *HEP232, *SK3009
	2N1023	2N384, 2SA74, 2SA78, *SK3006, *HEP640, *DS56, *JR100, *GE-9, *AA3
	2N1024	2N1219, 2N1230, 2N4008, *MM4052, *GE-21, *SP70, *DS26, *HEP51, *TF-19
	2N1025	2N1232, 2N1440, 2N1441, 2N1474A, *TR-28, *HEP51, *DS25, *SP70, *GE-21, *ECG159
	2N1026	2N1233, 2N1469, 2N1474A, *ECG159, *GE-21, *SP70, *HEP51, *TR-28
	2N1026A	SEE 2N1469
	2N1027	2N1231, 2N4007, 2N4008, *ECG159, *GE-21, *SP70, *HEP51, *TR-19
	2N1028	2N1027, 2N1228, 2N1229, *TR-19, *HEP51, *SP70, *GE-21, *ECG159
	2N1031	2N1114, 2N5124, 2N5134, 2N5144, 2N1163, 2N1163A, 2N1163A, 2N1654, 2N1651, CRT1544, MP1554, MP1554A, *ECG121, *GE-3, *PT150, *DS503, *HEP230, *SK3009
	2N1031A	2N5114, 2N5118, 2N5124, 2N5128, 2N5134, 2N5138, 2N5144, 2N5148, 2N1165, 2N1651, CRT1544, CRT1545, MP1554, MP1554A, MP1555, MP1555A, *SK3009, *HEP232, *DS503, *PT150, *GE-3, *ECG121
	2N1031B	2N1167, 2N1167A, 2N1652, 2N1653, 2N2445, CRT1553, MP1556, MP1556A, *ECG121, *GE-3, *PT250, *DS503, *HEP232, *SK3009
	2N1031C	2N1167, 2N1167A, 2N1652, 2N1653, 2N2445, CRT1553, MP1556, MP1556A, *SK3009, *HEP232, *DS503, *PT250, *GE-3, *ECG121
	2N1032	2N1147A, MP1558, MP1558A, MP2832, *ECG121, *GE-3, *PT150, *DS503, *HEP230, *SK3009, *MP1558, MP1558A, MP1559, MP1559A, *SK3009, *HEP232, *DS503, *PT150, *GE-3, *ECG121
	2N1032A	MP1558, MP1558A, MP1559, MP1559A, *SK3009, *HEP232, *DS503, *PT150, *GE-3, *ECG121
	2N1032B	2N1167, MP1560, MP1560A, MP2833, *ECG121, *GE-3, *PT250, *DS503, *HEP232, *SK3009
	2N1032C	2N1167, MP1560, MP1560A, MP2833, *SK3009, *HEP232, *DS503, *PT250, *ECG121
	2N1034	2N1036, 2N3061, 2N3911, 2N3912, 2N3914, 2N3915, *HEP51, *DS26, *SP70, *GE-21
	2N1035	2N329A, 2N329B, 2N2926, 2N2928, 2N1233, 2N1442, 2N1475, 2N2425, 2N3060, 2N3346, 2N4982, BCY31, *ECG104, *GE-21, *ECG129, *SP70, *DS26, *HEP51, *TR-28
	2N1036	2N3061, 2N3911, 2N3912, 2N3914, 2N3915, *HEP51, *DS26, *SP70, *ECG129, *GE-21
	2N1037	2N329A, 2N329B, 2N2926, 2N2928, 2N1035, 2N1233, 2N1442, 2N1475, 2N2425, 2N3060, 2N3346, 2N4982, BCY31, SHA7538, *GE-21, *SP70, *DS26, *HEP51, *TR-28
	2N1038	2N1039, 2N1042-2, 2N1043-2, 2N2564, 2N2565, *HEP238, *DS503, *AT100M, *GE-2, *ECG104, *AA1
	2N1038-1	2N1039-1, 2N1042-1, 2N1043-1
	2N1038-2	2N1039-2, 2N1042, 2N1043
	2N1039	2N1040, 2N1042-2, 2N1044-2, 2N2565, 2N2566, *AA1, *GE-3, *AT100M, *DS503, *HEP238
	2N1039-1	2N1040-1, 2N1042-1, 2N1044-1
	2N1039-2	2N1040-2, 2N1043, 2N1044
	2N1040	2N1041, 2N1044-2, 2N1045-2, 2N2566, 2N2567, *SK3009, *DS503, *AT100M, *GE-3, *ECG104, *AA1
	2N1040-1	2N1041-1, 2N1044-1, 2N1045-1
	2N1040-2	2N1041-2, 2N1044, 2N1045
	2N1041	2N1045-2, 2N2567, *AA1, *GE-3, *AT100M, *DS503, *SK3009, *HEP239
	2N1041-1	2N1045-1
	2N1041-2	2N1045
	2N1042	2N1038-2, 2N1039-2, 2N1043, 2N2566, 2N2567, *DS26, *AT100M, *GE-2, *ECG126, *AA1
	2N1042-1	2N1038-1, 2N1039-1, 2N1043-1
	2N1042-2	2N1038, 2N1039, 2N1043-2, 2N2564, 2N2565
	2N1043	2N1039-2, 2N1040-2, 2N1044, 2N2557, 2N2558, *AA1, *ECG126, *GE-2, *AT100M, *DS26
	2N1043-1	2N1039-1, 2N1040-1, 2N1044-1
	2N1043-2	2N1039, 2N1040, 2N1044-2, 2N2565, 2N2566
	2N1044	2N1040-2, 2N1041-2, 2N1045, 2N2558, 2N2559, *DS26, *AT100M, *GE-2, *ECG102, *AA1
	2N1044-1	2N1040-1, 2N1041-1, 2N1045-1
	2N1044-2	2N1040, 2N1041, 2N1045-2, 2N2566, 2N2567
	2N1045	2N1041-2, 2N2559, *AA1, *ECG102, *GE-2, *AT100M, *DS26
	2N1045-1	2N1041-1
	2N1045-2	2N1041, 2N2567
	2N1046	2N1046A, 2N1046B, *DS503, *HO300, *GE-25, *AA4, *HEP232
	2N1046A	2N1046B, *HEP232, *GE-25, *ECG121, *PT40, *DS503
	2N1046B	2N1046A, *DS503, *PT40, *ECG121, *GE-25, *HEP232
	2N1047	
	2N1047A	
	2N1047B	2N1047
	2N1048	
	2N1048A	
	2N1048B	2N1048
	2N1049	
	2N1049A	
	2N1049B	2N1049
	2N1050	
	2N1050A	
	2N1050B	2N1050
	2N1052	2N2726, *ECG154
	2N1053	2N1052, 2N2726, MM3009, *ECG154
	2N1054	2N698, *ECG154, *GE-20, *HEP53, *SN80, *DS66, *AA2
	2N1055	2N1042, 2N699A, 2N1618, 2N1717, 2N1885, 2N1893, 2N1974, 2N2102A, 2N3108, 2N3498, 2SC49, 2SC69, 8S1555, 8S187, MM3008, 8E8010
	2N1056	2N381, 2N1924, *DS26, *AT20M, *HEP253, *GE-2, *ECG102
	2N1057	2N382, 2N383, 2N526, 2N526A, 2N527, 2N527A, 2N597, 2N1057+, 2N1925, 2N1926, SF, T243, *ECG102, *GE-2, *HEP254, *SK3004, *AT20M, *DS26
	2N1057+	2N382, 2N383, 2N526, 2N526A, 2N527, 2N527A, 2N597, 2N1057, 2N1925, 2N1926, SF, T243
	2N1058	*DS-72, *NR10, *SK3011, *HEP641, *GE-5, *AA2, *TR-08
	-2N1058+	2N984, 2N357A, 2N358A, 2N377, 2N439, 2N439A, 2N576, 2N634A, 2N635, 2N1995, 2N1996, 2SC98, 2SD75
	2N1059	*AA2, *GE-8, *ECG103A, *HEP641, *SK3010, *NA30, *DS-66
	-2N1059+	2N440A, 2SD186, 2SD187, 2SD193, 2SD194
	-2N1065	2N586, 2N2956, 2SA311, 2SA312, *GE-5, *ECG160, *HF20M, *DS56, *AA1, *SK3008, *HEP12
	2N1066	2N1224, 2N1225, 2N1226, 2N1395, 2N1396, 2N1397, *HEP3, *SK3006, *AA3, *DS56, *AT100, *ECG160, *GE-9
	2N1067	
	2N1068	
	2N1069	2N1070, 2N1487, 2N1489, 2SD1244, BDY23A, HST9801, HST9802, *GE-19, *ECG130, *HN100, *HEP247, *TR-26
	2N1070	2N1069, 2N1487, 2N1489, 2SD1244, BDY23A, HST9801, HST9802, *TR-26, *HEP247, *HN100, *ECG130, *GE-19
	2N1073	*GE-16, *PT150, *DS503, *HEP230, *SK3034
	2N1073A	*HEP26, *SK3034, *HEP232, *DS503, *PT250, *GE-25, *ECG121
	2N1073B	*DS27, MP2528, *ECG127, *GE-25, *DS-503, *HEP235, *SK3034
	2N1079	2N1080

TRANSISTOR SUBSTITUTES

2N1175A-2N1258

To Replace	Substitute This Type
2N1175 (CONT)	2N1997, 2N1998, *TR-05, *HF6H, *AA1, *SK3004, *HEP254, *GE-2, *ECG102
2N1175A	2N382, 2N383, 2N461, 2N527A, 2N598, 2N652, 2N652A, 2N1175, 2N1189, 2N1190, 2N1193, 2N1449, 2N1997, 2N1998, *ECG102, *GE-2, *HEP254, *AA1, *HF6H, *DS66, *TR-05
2N1176	2N653, *DS-25, *AT100H, *AA1, *HEP253, *SK3005, *GE-1, *ECG100
2N1176A	2N381, 2N524, 2N524A, 2N525, 2N525A, 2N650, 2N650A, 2N1176B, 2N1186, 2N1444, 2N1451, *DS124, *M881, *M886, *HEP253, *AA1, *AT100H
2N1176B	2N1186, 2N1614, 2N1924, *M881, *AT100H, *AA1, *HEP253, *ECG100
-2N1177	*ECG160, *GE-9, *HEP638, *SK3006, *AA3, *JR100, *DS-41
-2N1178	*DS-41, *JR100, *AA3, *SK3006, *HEP638, *GE-9, *ECG160, *TR-17
-2N1179	2N3783, 2N3784, *ECG160, *GE-9, *HEP638, *SK3006, *AA3, *JR100, *DS-41
-2N1180	2N2084, 2N2207, 2N2997, 2SA279, *DS-56, *JR100, *AA3, *SK3006, *HEP638, *GE-9, *ECG126
2N1183	2N1183A, *HEP238, *ECG121, *AA1, *AT100H, *DS503
2N1183A	2N1183B, *DS503, *AT100H, *AA1, *ECG121, *HEP238
2N1183B	*HEP239, *ECG121, *AA1, *AT100H, *DS503
2N1184	2N1184A, *DS503, *AT100H, *AA1, *ECG121, *HEP238
2N1184A	2N1184B, *HEP238, *ECG121, *AA1, *AT100H, *DS503
2N1184B	*DS503, *AT100H, *AA1, *ECG121, *HEP239
2N1185	2N3427, 2N3428, *HEP254, *ECG100, *GE-1, *AA1, *HF3H, *DS25
2N1186	*DS25, *HF3H, *AA1, *GE-1, *ECG100, *HEP253
2N1187	2N1188, *HEP254, *ECG100, *GE-1, *AA1, *HF3H, *DS25
2N1188	*DS25, *HF3H, *AA1, *GE-1, *ECG100, *HEP254
2N1189	2N527A, 2N2, 2N1190, 2N1926, 2N1997, 2N2000, *HEP254, *ECG102
2N1190	2N2000, 2N2171, 2N3427, *ECG102, *HEP254
2N1191	2N650, 2N1348, 2N1250, 2N1351, SF-T243, *HEP631, *SK3004, *ECG102, *GE-2, *AA1, *AT30H, *DS-26, *TR-05
2N1192	2N597, 2N651, 2N652, 2N1349, 2N1997, *TR-05, *DS26, *AT20H, *AA1, *GE-2, *ECG102, *SK3004, *HEP632
2N1193	2N3427, *HEP633, *ECG102, *AA1, *AT30H, *TR-05
2N1194	MA1702, *AT30H, *DS-26, *AA1, *ECG102, *GE-2, *HEP634
2N1195	*JR100, *DS56, *AA3, *GE-9, *ECG160
2N1198	2N357A, 2N358A, 2N440, 2N440A, 2N635A, 2N636A, 2N1000, 2N1090, 2N1091, 2N1114, 2N1304, 2N1306, *ASY29, SF-T298, *ECG103, *GE-6, *HEP641, *SK3011, *AA2, *DS-72, *NR10, *TR-08
2N1199	2N706, 2N706A, 2N706B, 2N743, 2N835, 2N947, 2N1472, 2N2205, *MPS706, *MPS706A, *MPS918, *MPS6540, *MPS6542, *MPS6543, *MPS6548, *MT1036, *MT1038A, *MT1039, *TR-21, *NR10, *DS-72, *AA2, *GE-17, *ECG123A
2N1202	2N540A, 2N1263, *SK3012, *ECG105, *PT40
2N1203	2N2267, 2N2269, *HEP253, *ECG105, *GE-4, *SK3012
2N1204	2N1204A, 2N2059, *HEP253, *ECG126
2N1204A	*ECG126, *HEP253
2N1206	2N2106, 2N2107
2N1207	BF117, MM3001
2N1208	ST400
2N1209	ST400, ST401
2N1210	2N1211
2N1211	
2N1212	2N1208
2N1217	2N440, 2N440A, 2N635A, 2N636, 2N636A, 2N797, 2N1091, 2N1114, 2N1198, 2N1304, 2N1306, 2SC99, *TR-08, *DS-72, *NR10, *GE-7, *ECG103, *HEP641, *AA2
-2N1217+	2N167, 2N167A, 2N169A, 2N440, 2N440A, 2N635, 2N635A, 2N636, 2N636A, 2N1090, 2N1091, 2N1114, 2N1304, 2N1306, 2N1996, 2SC99, 2SC180, *ASY29
-2N1218	*HEP243, *ECG121
2N1219	2N4008, *MM4052, *ECG159, *GE-21, *HEP51, *SP70, *TR-19
2N1220	2N3278, 2N1230, *MM4052, *TR-19, *SP70, *HEP51, *GE-21, *ECG159
2N1221	2N1219, 2N4008, *MM4052, *ECG159, *GE-21, *HEP51, *SP70, *DS25, *TR-19
2N1222	2N3278, 2N1220, 2N1230, *MM4052, *TR-19, *SP70, *HEP51, *GE-21, *ECG159
2N1223	2N3278, *ECG159, *GE-21, *HEP51, *SP70, *TR-28
2N1224	2N1066, 2N1225, 2N1226, 2N1395, 2N1396, 2N1397, *JR100, *DS41, *HEP638, *SK3007, *GE-9, *ECG126, *AA1
2N1225	2N1396, *AA3, *ECG126, *GE-9, *SK3006, *HEP639, *DS41, *JR100
2N1226	*JR100, *DS25, *HEP639, *SK3008, *GE-9, *ECG126, *AA1
2N1227	2N392, 2N1138, 2N1168, *AA4, *ECG104, *GE-3, *SK3009, *HEP230, *DS503, *PT40
2N1228	MM4052, *SP70, *HEP51, *GE-21, *ECG129, *TR-19
2N1229	2N4007, TW135, *TR-19, *ECG129, *GE-21, *HEP51, *SP70
2N1230	*SP70, *HEP51, *GE-21, *ECG129, *TR-28
2N1231	*TR-28, *ECG129, *GE-21, *HEP51, *SP70
2N1232	*SP70, *HEP51, *GE-21, *ECG129, *TR-28
2N1233	2N4982, *TR-28, *ECG129, *GE-21, *HEP51, *SP70
2N1234	*ECG129
2N1235	2N1260
2N1238	SHA7522, *GE-21, *SP70
2N1239	SHA7526, *SP70, *GE-21, *ECG106
2N1240	SHA7523, *ECG106, *GE-21, *SP70
2N1241	SHA7527, *SP70, *GE-21, *ECG106
2N1242	SHA7524
2N1243	SHA7528
2N1244	SH825
2N1247	2N473, 2N2926-BRN, 2N3662, 2N3854, 2SC387, 2SC668, 2SC674, 2SC772, GI-3605, GI-3606, GI-3607, PET8101, *ECG123, *GE-20, *SN80, *DS-72, *HEP53, *SK3020, *TR-21
2N1248	2N470, 2N1586, *TR-21, *SK3020, *HEP53, *DS-72, *NR10, *GE-20, *ECG123
2N1249	2N473, 2N1247, 2N1589, 2N2926-BRN, 2N3662, 2N3854, 2SC387, 2SC668, 2SC674, 2SC772, GI-3605, GI-3606, GI-3607, PET8101, *ECG123, *GE-20, *SN80, *DS-66, *HEP53, *SK3020, *TR-21
2N1250	AMF112, AMF113
2N1251	*SK3010, *HEP641, *DS566, *MM420, *GE-8, *FCJ123A, *AA2
-2N1251+	2N388, 2N446A, 2N447A, 2N1251, 2N1308, 2N1808, 2N1953, 2SD30, AC127
2N1252	2N1987, 2N3122, 2SC151, 85Y91, TN81, *ECG128, *HEP53, *TR-25
2N1253	2N2320, 2N2330, 2SC352, 85Y63, *TR-25, *HEP53, *ECG128
2N1254	2N721, 2N721A, 2N978, 2N1255, 2N1256, 2N1257, 2N1259, 2N1991, 2N2393, *TR-19, *ECG129, *GE-21, *HEP51, *SP70, *DS56
2N1255	2N722, 2N722A, 2N1257, 2N2394, 2N3341, 2N5041, 2N5448, FN1132, FT5041, GI-3703, MPS3703, *SP70, *HEP51, *GE-21, *ECG129, *TR-19
2N1256	2N721, 2N721A, 2N1257, 2N1259, 2N2393, 2N2602, *TR-28, *ECG129, *GE-21, *HEP51, *SP70, *DS56
2N1257	2N722, 2N722A, 2N2394, 2N5041, 2N5448, EN1132, FT5041, GI-3703, MPS3703, *SP70, *HEP51, *GE-21, *ECG129, *TR-28
2N1258	2N722, 2N2394, 2N2320, 2N3341, 2N3541, 2N3703, 2N3905, 2N5041, 2N5042, 2N5449, 8C177, 8C202, 8C203, FT5041, GI-3703, MM3903, MPS3703, *TR-19, *ECG129, *GE-21, *HEP51, *SP70

TRANSISTOR SUBSTITUTES

2N1303-2N1377

Q's To Replace	Substitute This Type
2N1302 (CONT)	*GE-5,*DS-72,*NA20,*AA2,*TR-08
2N1303	2N1305, 2N1348, 2N1349, 2N1350, 2N1351, 2N2375,*AA1,*AT30M,*GE-1,*ECG158,*SK3004,*HEP629
2N1304	2N440, 2N440A, 2N635A, 2N636A, 2N1306,*HEP641,*SK3011,*ECG101,*GE-5,*NA20,*DS-72,*AA2,*TR-08
2N1305	2N1307, 2N1349,*AA1,*DS-25,*AT30H,*GE-1,*ECG158,*HEP629
2N1306	2N635A, 2N636A, 2N1308,*HEP641,*SK3011,*ECG101,*GE-5,*NA30,*DS-72,*AA2
2N1307	2N1309,*AA1,*DS-25,*AT30H,*GE-1,*ECG158,*HEP629
2N1308	*HEP641,*SK3011,*ECG101,*GE-5,*NA30,*DS-72,*AA2
2N1309	2N237A,*AA1,*DS-25,*AT30H,*GE-1,*ECG100,*HEP629
2N1310	*ECG101,*GE-5,*HEP641,*NR5,*DS-72,*AA2
2N1311	2N1310,*AA2,*DS-72,*NR5,*HEP641,*SK3011,*GE-5,*ECG101
2N1312	2N1311,*ECG103,*GE-7,*HEP641,*NR5,*DS-72,*AA2,*TR-08
2N1313	2N1348, 2N1349, 2N1350, 2N1351, 2N2375,*AA1,*HF6M,*HEP254,*SK3008,*GE-1,*ECG126
2N1314	2N242, 2N307, 2N307A, 2N376A, 2N554, 2N1534, 2N1534A, 2N1539, 2N1539A, 2N3611, 2N3613, *MP2060, *OC27,*ECG104,*GE-3,*SK3009,*HEP230,*PT40,*DS503,*AA4
2N1316	2N599, 2N237A,*ECG100,*GE-1,*AA1,*DS-25,*HF12H,*HEP2,*SK3005
2N1317	2N599, 2N1316, 2N237A,*SK3005,*HEP2,*HF12H,*DS25,*AA1,*GE-1,*ECG100
2N1318	2N1282, 2N1317,*ECG100,*GE-1,*AA1,*DS-25,*HF12H,*HEP2,*SK3005
2N1319	2N915A, 2N316A, 2N317A, 2N428, 2N1017, 2N1018, 2N1313,*HF6M,*DS25,*AA1,*GE-1,*ECG100
2N1321	
2N1323	2N1325
2N1325	
2N1327	
2N1328	
2N1329	
2N1330	
2N1331	
2N1332	
2N1333	
2N1334	
2N1335	2N699B, 2N1336, 2N1337, 2N1342, 2N1613B, 2N2102, 2N2102A, 2N3020, 2N3500, 2SC49, 2SC69, 2SC590, 85Y55
2N1336	2N699B, 2N1335, 2N1337, 2N1342, 2N1613B, 2N2102, 2N2102A, 2N3020, 2N3500, 2SC49, 2SC69, 2SC590, 85Y55
2N1337	2N699B, 2N1335, 2N1336, 2N1342, 2N1613B, 2N2102, 2N2102A, 2N3020, 2N3500, 2SC49, 2SC69, 2SC590, 85Y55
2N1338	2N1613, 2N1613A, 2N1837A, 2N2218A, 2N3108, 2N3110, 2N3498, 2N3678, 2N3722, 2N3723, 2N3725, 2SC708A, 85Y53, 85Y87, SE8010,*ECG123,*GE-2,*SF80,*TR-18
2N1339	2N699B, 2N1335, 2N1336, 2N1337, 2N1340, 2N1341, 2N1342, 2N1613B, 2N2102, 2N2102A, 2N3020, 2N3500, 2SC49, 2SC69, 2SC590, 85Y55
2N1340	2N699B, 2N1335, 2N1336, 2N1337, 2N1339, 2N1341, 2N1342, 2N1613B, 2N2102, 2N2102A, 2N3020, 2N3500, 2SC49, 2SC69, 2SC590, 85Y55
2N1341	2N699B, 2N1335, 2N1336, 2N1337, 2N1339, 2N1340, 2N1342, 2N1613B, 2N2102, 2N2102A, 2N3020, 2N3500, 2SC49, 2SC69, 2SC590, 85Y55
2N1342	2N3020, 2N3500,*MM2259
2N1343	2N315A, 2N316A, 2N317A, 2N428, 2N1017, 2N1018, 2N1313,*HF6M,*DS25,*GE-1,*ECG100,*AA1,*HEP253,*SK3005
2N1344	2N315A, 2N316A, 2N1281, 2N1282, 2N1316, 2N1317, 2N2001,*SK3005,*HEP254,*AA1,*ECG100,*GE-1,*DS-25,*HF12H
2N1345	2N1280,*HF12H,*DS-25,*GE-1,*ECG100,*AA1,*HEP2,*SK3005
2N1346	*SK3005,*HEP2,*AA1,*ECG100,*GE-1,*DS-25,*HF12H
2N1347	2N396, 2N396A, 2N397, 2N414, 2N415, 2N415A, 2N416, 2N1171, 2N1284, 2N1305, 2N1307, 2N1355, 2N1356, 2N1357,*2N1681, 2N2375, SF. T228, SYL792,*HF6M,*DS25,*GE-1,*ECG100,*AA1,*HEP254,*SK3005
2N1348	2N699B, 2N1350, 2N1351,*HEP254,*AA1,*ECG102,*GE-2,*DS26,*HF6M
2N1349	*HF12H,*DS-25,*GE-1,*ECG100,*AA1,*HEP254
2N1350	2N1349, 2N1351,*HEP254,*AA1,*ECG100,*GE-1,*DS-25,*HF12H
2N1351	2N1349, 2N1350,*HF12H,*DS-25,*GE-1,*ECG100,*AA1,*HEP254
2N1352	2N382, 2N383, 2N396A, 2N397, 2N415, 2N415A, 2N416, 2N526A, 2N527, 2N527A, 2N597, 2N651, 2N654, 2N654*, 2N1008A, 2N1189, 2N1192, 2N1349, 2N1354, 2N1355, 2N1356, 2N1357, 2N1449, SF. T223,*HEP254,*SK3003,*AA1,*ECG102,*GE-2,*DS26,*HF3H,*TR-05
2N1353	2N397, 2N508A, 2N522, 2N523, 2N599, 2N655, 2N655*, 2N1281, 2N1282, 2N1316, 2N1317, 2N1354, 2N1355, 2N1356, 2N1357, 2N1381, SF. T223,*TR-05,*HF6M,*DS26,*GE-2,*ECG102,*AA1,*SK3003,*HEP254
2N1354	2N383, 2N397, 2N508, 2N599, 2N652, 2N655, 2N1193, 2N1316, 2N1355, 2N1356, 2N1357, 2N1997, 2N1998,*HEP254,*SK3005,*AA1,*ECG100,*GE-1,*DS25,*HF6M,*TR-05
2N1355	2N383, 2N397, 2N508, 2N599, 2N1316, 2N1356, 2N1357, 2N1998,*HF6M,*DS25,*GE-1,*ECG100,*AA1,*SK3005,*HEP254
2N1356	2N383, 2N397, 2N508, 2N599, 2N1316, 2N1355, 2N1357, 2N1998,*HEP254,*AA1,*ECG100,*GE-1,*DS-25,*HF12H
2N1357	2N1378, 2N1138B, 2N1365, 2N1547A,*AA4,*PT40,*DS501,*SK3005,*HEP232,*GE-2,*ECG121
2N1358	2N174A,*SK3012,*HEP233,*AA5,*ECG105,*GE-4,*DS051,*PT515
2N1358A	2N100, 2N1412,*DS501,*GE-4,*ECG105,*AA5,*HEP233,*SK3012
2N1359	2N1168, 2N1360, 2N1535, 2N1545A,*ECG121,*GE-3,*AA4,*HEP232,*SK3009,*DS503,*PT40,*SK3004,*DS-26,*AT30H,*AA1,*TR-05
2N1360	2N392, 2N1137, 2N1138, 2N1168, 2N1545A,*PT40,*DS503,*SK3009,*HEP232,*AA4,*GE-3,*ECG121
2N1362	2N1363, 2N1364, 2N1365, 2N1537, 2N1538, 2N1547A,*ECG121,*GE-16,*HEP232,*SK3009,*PT40,*AA4
2N1363	2N1137B, 2N1138B, 2N1365, 2N1547A,*AA4,*PT40,*DS501,*SK3005,*HEP232,*GE-2,*ECG121
2N1364	2N1365, 2N1538,*ECG121,*GE-16,*HEP232,*SK3009,*DS-520,*AA4
2N1365	*AA4,*DS-520,*SK3009,*HEP232,*GE-16,*ECG121
2N1370	2N397, 2N417, 2N508A, 2N598, 2N599, 2N655, 2N655*, 2N1008A, 2N1193, 2N1307, 2N1309, 2N1316, 2N1354, 2N1355, 2N1356, 2N1357, 2N1376, 2N1381, 2N1398, SF. T223,*ECG102,*GE-2,*HEP253,*SK3004,*DS-26,*AT30H,*AA1,*TR-05
2N1371	2N383, 2N461, 2N652, 2N652A, 2N1188, 2N1193, 2N1377, 2N1449, 2N1997, M8883, M8888,*AA1,*AT30H,*DS-26,*SK3004,*HEP253,*GE-2,*ECG102
2N1372	2N1374, 2N1376, 2N1381, 2N1382, 2N1478, 2N2375, 2S8403,*ECG102,*GE-2,*HEP253,*SK3004,*DS-26,*AT30H,*AA1
2N1373	2N597, 2N1375, 2N1377,*AA1,*AT30M,*DS-26,*SK3004,*HEP253,*GE-2,*ECG102
2N1374	2N598, 2N1376, 2N1381, 2N1382, 2N1998,*ECG102,*GE-2,*HEP633,*SK3004,*DS-26,*AT30H,*AA1
2N1375	2N1377, 2N1997,*AA1,*AT30H,*DS-26,*SK3004,*HEP253,*GE-2,*ECG102
2N1376	2N597, 2N599, 2N1381, 2N1999,*ECG102,*GE-2,*HEP254,*SK3004,*DS-26,*AT30H,*AA1
2N1377	2N1997,*AA1,*AT30H,*DS-26,*SK3004,*HEP254,*GE-2,*ECG102

TRANSISTOR SUBSTITUTES

2N140-2N1533

To Replace	Substitute This Type
2N1450	2N43, 2N43A, 2N43A*, 2N61A, 2N61B, 2N284, 2N331, 2N361, 2N363, 2N381, 2N394, 2N395, 2N404A, 2N413, 2N414, 2N414A, 2N414B, 2N414C, 2N422, 2N505, 2N518, 2N525, 2N525A, 2N526, 2N567, 2N568, 2N580, 2N633, 2N650, 2N650A, 2N653, 2N1017, 2N1057, 2N1057*, 2N1141, 2N1171, 2N1191, 2N1284, 2N1313, 2N1348, 2N1350, 2N1351, 2N1373, 2N1414, 2N1447, 2N1448, 2N1451, 2N1452, 2N1478, 2N1499, 2N1681, 2N2100, 2N2375, 2N2382, 2N2955, 2N2956, 2S4311, 2S4312, 2S4415, 2S4401, MA886, NKT221, NKT224, NKT228, SF. T222, SF. T227, MA730M, *DS-26, *GE-2, *ECG102, *HEP253, *SK3000, *A1, *TR-05
-2N1450+	2N586, 2N1141, 2N1455, 2N2100, 2N2382, 2N2955, 2N2956
2N1451	2N381, 2N525, 2N525A, 2N526, 2N650, 2N650A, 2N1186, 2N1447, 2N1448, 2N1452, 2N1924, MA100, MA881, MA886, SF. T243, *A1, *SK3000, *HEP253, *ECG102, *GE-2, *DS-26, *AT33M
2N1452	2N381, 2N383, 2N461, 2N526, 2N526A, 2N527, 2N527A, 2N597, 2N651, 2N651A, 2N1137, 2N1139, 2N1448, 2N1449, 2N1925, 2N1926, MA100, MA382, MA887, SF. T243, *AT30H, *DS-26, *GE-2, *ECG102, *HEP254, *SK3000, *A1
2N1465	
2N1466	
2N1469	2N1233, 2N2946, 2N3840, 2N3910, 2N3913, *HEP254, *ECG100, *GE-21, *SP70, *TR-25
2N1471	2N523, 2N599, 2N655*, 2N1999, MA1703, MA1704, *ECG100, *GE-1, *HF6M, *DS26, *HEP254, *A1
2N1472	2N706, 2N706A, 2N706B, 2N706C, 2N743A, 2N783, 2N784, 2N834, 2N834A, 2N835, 2N2205, 2N2366, 2N3261, 2N3544, 2N5187, 2N5236, 40405, GET 706, KT218, MM1941, MPM5006, MPS706, MPS706A, MP5834, MP5918, MP56507, MP56511, MP56540, MP56542, MP56543, MP56544, MP56548, MP5820, MP5832, MP5837, MT1038, MT1038A, MT1039, *EK10, *GE-17, *ECG126, *TR-22
2N1473	*ECG101, *GE-7, *NR5, *DS-72, *AA2, *HEP6A1, *SK3011
2N1474	2N1233, 2N1474A, *HEP51, *SP70, *GE-21, *ECG129, *TR-28
2N1474A	2N1232, 2N1233, *TR-28, *ECG129, *GE-21, *SP70, *HEP51
2N1475	2N4982, *HEP51, *SP70, *GE-21, *ECG129, *TR-28
2N1476	2N3842
2N1477	
2N1478	2N2375, *ECG102, *GE-2, *HF12H, *DS-26, *HEP254, *A1
2N1479	*HEP243, *ECG128
2N1480	*ECG128, *HEP243
2N1481	*HEP243, *ECG128
2N1482	*ECG128, *HEP243
2N1483	*HEP243
2N1484	2N1486
2N1485	*HEP243
2N1486	
2N1487	2N1489, 8DY23A, HST9201, HST9205, HST9206, HST9801, HST9802, *HEP247, *ECG130
2N1488	2N1490, 2N3446, 8DY24A, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, *ECG130, *HEP247
2N1489	18072, 8DY23B, HST9201, HST9205, HST9206, HST9801, HST9802, *HEP247, *ECG130
2N1490	2N3446, 181T2, 8DY24B, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, *ECG130, *HEP247
2N1491	25C366, 25C654, *HEP53, *ECG123A, *GE-17, *EN10, *TR-21
2N1492	*ECG123A, *HEP53
2N1493	*HEP71A, *ECG154
2N1494	2N1494A, *GE-9, *JR100, *DS56
2N1494A	
2N1495	2N2100, 2N2382, *DS56, *JR100, *GE-9, *ECG160, *HEP2, *A1
2N1496	*JR100
2N1499	2N61, 2N104, 2N111A, 2N112A, 2N130A, 2N131A, 2N133A, 2N187, 2N187A, 2N188, 2N188A, 2N200, 2N206, 2N225, 2N269, 2N283, 2N284, 2N315A, 2N316, 2N316A, 2N317, 2N317A, 2N319, 2N320, 2N361, 2N368, 2N394, 2N402, 2N403, 2N404, 2N413, 2N428, 2N565, 2N566, 2N579, 2N579*, 2N580, 2N580*, 2N611, 2N624, 2N644, 2N615, 2N653, 2N579, 2N980, 2N1017, 2N1018, 2N1303, 2N1313, 2N1343, 2N1423, 2N1499A, 2S4182, 2S4204, 2S4212, 2S4217, 2S4414, 2S4415, 2S4815, ASY26, ASY27, NKT725, SF. T221, SF. T222, SF. T227, *JR100, *DS-56, *A1, *HEP635, *ECG126, *GE-9, *TR-05
2N1499A	2N838, 2N979, 2N980, 2N1204A, 2N1499B, 2N2168, 2N2796, 2N3323, 2N3324, 2N3325, 2N3412, 2N3883, *GE-9, *ECG126, *HEP635, *A1, *DS56
2N1499B	2N2957, 2N3323, 2N3324, 2N3325, *DS56, *A1, *HEP635, *ECG126, *GE-9
2N1500	2N559, 2N718, 2N829, 2N838, 2N846A, 2N968, 2N972, 2N976, 2N979, 2N980, 2N983, 2N984, 2N1204A, 2N1499B, 2N2168, 2N2796, 2N3320, 2N3412, 2N3883, 2S4372, *GE-9, *ECG126, *HEP2, *A1, *DS56, *JR100, *TR-17
2N1501	2N539A, 2N540A, 2N1202, 2N1262, 2N1263, *ECG104, *GE-4, *SK3012, *PT40
2N1502	2N1501, *PT40, *SK3012, *GE-4, *ECG104
2N1504	
2N1505	2N1506, 2N1710, 2N4350, *ECG108, *GE-17, *EN10, *TR-25
2N1506	2N1506A, 2N1709, 2N1710, 2N2874, 2N3118, 2N3866, 40305, 40577, *EN10, *GE-17, *ECG108
2N1506A	2N1709, 2N2874, 40305, *ECG108, *GE-17, *EN10
2N1507	2N1420, 2N1711A, 2N1972, 2N2049, 2N2960, 2N2961, 2N3300, *EN10, *GE-17, *ECG108
-2N1510	2N1310, *ECG101, *GE-6, *NR10, *DS-75
2N1511	2N1513
2N1512	2N1514
2N1513	
2N1514	
2N1518	2N1520, 2N1522, *ECG105, *GE-4, *AA5, *HEP231, *SK3012, *PT515
2N1519	2N1521, 2N1530, 2N1532, *SK3012, *HEP233, *GE-5, *GE-4, *ECG105
2N1520	2N1522, *ECG105, *GE-4, *AA5, *HEP231, *SK3012, *PT515
2N1521	2N1523, *PN350, *SK3012, *HEP233, *AA5, *GE-4, *ECG105
2N1522	2N2731, *ECG105, *GE-4, *AA5, *HEP231, *SK3012, *PT515
2N1523	2N2730, *PT515, *SK3012, *HEP233, *AA5, *GE-4, *ECG105
2N1524	2N838, 2N1632, 2N1637, 2N1638, 2N1639, 2N2188, 2N2273, 2N2795, 2N2956, 2N3323, 2N3324, 2N3325, 2S4353, 2S4354, 2S4355, 2S4817, 2S4817A, *ECG160, *GE-9, *A1, *HEP3, *SK3008, *JR100, *DS56, *TR-17
-2N1525	2N388, 2N1526, 2N1632, 2N1637, 2N1638, 2N1639, 2N2188, 2N2273, 2N2795, 2N2956, 2N3323, 2N3324, 2N3325, 2S4353, 2S4354, 2S4355, 2S4817, 2S4817A, *A1, *ECG160, *GE-9, *HEP3, *SK3008, *TR-17, *DS56, *JR100
2N1526	2N2635, *JR100, *DS-25, *SK3008, *HEP638, *GE-9, *ECG126, *A1
2N1527	2N1526, 2N2635, *HEP3, *SK3008, *ECG160, *GE-9, *A1, *DS56, *JR100
2N1529	2N1530, 2N3611, 2N3612, *HEP230, *SK3009, *ECG121, *GE-3, *DS503, *PT50, *AA4
2N1529A	2N380, 2N1530A, *AA4, *DS503, *GE-3, *ECG121, *SK3009, *HEP230
2N1530	2N1531, 2N3612, 2N3615, *HEP232, *SK3009, *ECG121, *GE-3, *DS503, *PT50, *AA4
2N1530A	2N1531A, *AA4, *DS503, *GE-3, *ECG121, *SK3009, *HEP232
2N1531	2N1532, 2N3615, 2N3616, *HEP232, *SK3009, *ECG121, *GE-3, *DS503, *PT50, *AA4
2N1531A	2N1532A, *AA4, *DS503, *GE-3, *ECG121, *SK3009, *HEP232
2N1532	2N1533, 2N3616, *HEP232, *SK3009, *ECG121, *GE-3, *DS503, *PT150, *AA4
2N1532A	*AA4, *DS503, *GE-3, *ECG121, *SK3009, *HEP232
2N1533	*HEP25, *SK3009, *ECG121, *GE-3, *DS503, *PT150, *AA4

Q1 D1	To Replace	Substitute This Type
2N1674 (CONT)	25C318, 25C838, 25C839, 25C852, EN916, FT3641, FT3642, MM3903, MPS3693, MPS3826, MPS6565, PET1001, SE1001, *EN10, *HEP53, *GE-17, *ECG123A	
2N1676	2N864, 2N865, 2N1677, 2N2164, 2N2894A, 2N3248, 2N3546, 2N4006, 2N4207, 2N4208, 2N4209, 2N4257, 2N4258, 2N4313, 2N4872, 2N5055, 2N5056, 2N5057, 2N5141, 2N5292, EN2894A, MM2894, *MPS107, *MPS108, *ECG159, *GE-21, *HEP51, *SP70, *DS56, *TR-19	
2N1677	2N864, 2N865, 2N1676, 2N2164, 2N2894A, 2N3248, 2N3546, 2N4006, 2N4207, 2N4208, 2N4209, 2N4257, 2N4258, 2N4313, 2N4872, 2N5055, 2N5056, 2N5057, 2N5141, 2N5292, EN2894A, MM2894, *MPS107, *MPS108, *TR-19, *DS56, *SP70, *HEP51, *GE-21, *ECG159	
-2N1678	*ECG160, *HEP2, *SK3008, *DS25, *AA1	
2N1681	2N383, 2N396A, 2N397, 2N1348, 2N1349, 2N1350, 2N1351, 2N1355, 2N1356, 2N1357, 2N2375, *AA1, *DS-25, *HF12M, *HEP254, *ECG102A, *GE-1	
2N1683	2N1280, *HEP254, *ECG100, *GE-1, *HF12M, *DS-25, *AA1	
-2N1684	*AA1, *DS-25, *HF12M, *GE-1, *ECG100, *HEP253, *TR-05	
-2N1685	*HEP641, *SK3011, *ECG101, *GE-6, *NR5, *DS-72, *AA2	
2N1690	*TR-25	
2N1691		
2N1692	2N1692	
2N1693	2N356, 2N356A, 2N357, 2N357+, 2N358, 2N377, 2N438, 2N438A, 2N557, 2N576, 2N585, 2N585+, 2N634, 2N634A, 2N1994, 2N1995, 25C89, 25C90, 25C91, 25C128, 25C129, 25D75, ASY28, *TR-08, *AA2, *DS-72, *NR5, *GE-6, *ECG101, *HEP641	
-2N1694	*ECG126, *GE-9, *JR100, *DS56	
2N1700	2N1481, 2N2297, 2N3945, 85Y83, SDT4305, SDT4306, SDT4311, SDT4312, *ECG128, *HEP243	
2N1701	2N1485	
2N1702	2N1489, 2N2232, 2N3445, 180T2, 8DY236, HST9201, HST9205, HST9206, HST9801, HST9802, *HEP247, *ECG130	
2N1703	2N1511, 2N1513, 2N2338, 152-04, 152-06	
2N1704	2N760, 2N760A, 2N760B, 2N1507, 2N1986, 2N3643, 2N4900, 2N4962, *ECG123, *GE-20, *HEP53, *SN80	
2N1705	2N598, 2N599, 2N661, 2N1282, 2N1316, 2N1317, 2N1598, 2N2374, *HF6H, *DS26, *HEP254, *SK3004, *SN80	
2N1706	2N598, 2N660, 2N661, 2N1316, 2N1707, 2N1998, *AA1, *ECG102, *GE-2, *SK3006, *HEP254, *DS26, *HF6H	
2N1707	2N382, 2N383, 2N598, 2N652, 2N660, 2N661, 2N1316, 2N1997, 2N1998, *HF6H, *DS26, *HEP254, *SK3004, *GE-2, *ECG102, *AA1	
2N1708	*ECG123A, *GE-20, *HEP50, *SN80	
2N1709		
2N1710		
2N1711	2N1711A	
2N1711A		
2N1711B		
2N1714	2N2107, 2N3110, 2N3725	
2N1715	2N3108, 2N4000	
2N1716	2N2108, 2N2193, 2N2193A, 2N2193B, 2N2270, 2N2866, 2N3109, 2N3725A, 2N4960, 2N4961, 40635	
2N1717	2N6998, 2N1889, 2N2243, 2N2243A, 2N3036, 2N3107	
2N1718		
2N1719	2N2991	
2N1720		
2N1721	2N2993	
2N1722		
2N1722A		
2N1723		
2N1724	ST86020, ST86021, ST91057, ST91058, STT2650, STT2651, STT2652, STT2653	
2N1724A	ST86022, ST91059	
2N1725	SIT2629	
2N1726	2N827, 2N982, 2N2048, 2N2635, 2N2795, *ECG160, *GE-9, *HEP2, *SK3006, *JR200, *DS41, *AA3	
2N1727	2N5208, 2N2979, 2N980, 2N1141, 2N1142, 2N1143, 2N1204A, 2N1499A, 2N1499B, 2N1746, 2N1790, 2N1865, 2N1866, 2N2168, 2N2796, 2N3883, *AA3, *DS41, *JR200, *SK3006, *HEP2, *GE-9, *ECG160, *TR-17	
2N1728	2N982, 2N1499B, 2N1726, 2N1748A, 2N2273, 2N2795, 2N3323, 2N3324, 2N3325, 2N3412, *TR-05, *ECG160, *GE-9, *HEP2, *SK3006, *JR200, *DS41, *AA3	
2N1742	*HEP3, *ECG160, *GE-9, *AA3, *DS56, *JR200	
2N1743	2N1142, 2N1143, 2N1143, 2N1742, 2N1744, *JK200, *DS56, *AA3, *GE-9, *ECG100, *HEP253, *TR-05	
2N1744	2N1141, 2N1142, 2N1143, 2N1742, 2N1743, *TR-05, *HEP253, *ECG100, *GE-9, *AA3, *DS56, *JR200	
2N1745	2N5028, 2N1141, 2N1142, 2N1143, 2N1742, 2N1743, 2N1744, 2N1868, 2N2099, *JR200, *AA1, *ECG160, *HEP3, *TR-17	
2N1746	2N838, 2N982, 2N1499B, 2N1726, 2N1788, 2N2168, 2N2273, 2N2795, 2N2796, 2N3323, 2N3324, 2N3325, 2N3412, 2N3883, *TR-17, *HEP3, *SK3006, *ECG160, *GE-9, *AA3, *DS56, *JR200, *DS56	
2N1747	2N838, 2N982, 2N1499B, 2N1726, 2N1728, 2N1746, 2N1748, 2N1788, 2N1790, 2N1865, 2N1866, 2N2168, 2N2273, 2N2795, 2N2796, 2N3323, 2N3324, 2N3325, 2N3412, 2N3883, 25A371, *DS56, *JR200, *AA3, *GE-9, *ECG160, *SK3006, *HEP3, *TR-05	
2N1748	2N838, 2N1499B, 2N1749, 2N1788, 2N2273, 2N2795, 2N2957, 2N3323, 2N3324, 2N3325, *TR-17, *HEP2, *SK3006, *ECG160, *GE-9, *AA3, *JR200, *DS-56	
2N1748A	2N2189, 2N2273, 2N2795, 2N2957, *DS56, *AA3, *ECG160, *SK3006, *HEP2	
2N1749	2N2957, *HEP2, *SK3006, *ECG160, *GE-9, *AA3, *DS56, *JR100	
2N1751	*AA4, *PT50	
2N1752	2N827, 2N2048, 2N3321, *JR100, *AA3, *HEP2, *ECG160	
2N1754	2N828, 2N846A, 2N960, 2N961, 2N968, 2N969, 2N976, 2N984, 2N2168, 2N2169, 2N2796, 2N3322, 25A372, *TR-05, *HEP2, *SK3005, *ECG160, *GE-9, *AA3, *JR100, *DS56	
2N1755	2N1756, *DS503, *PT40, *AA4, *GE-3, *ECG104, *SK3009	
2N1756	2N1757, *SK3009, *ECG104, *GE-3, *AA4, *PT40, *DS503	
2N1757	2N1758, *DS503, *PT50, *AA4, *GE-3, *ECG104, *SK3009	
2N1758	*SK3009, *ECG104, *GE-3, *AA4, *PT50, *CS503	
2N1760	2N1760, 2N3154, 2N3155, *DS-503, *PT40, *AA4, *GE-3, *ECG104, *SK3009	
2N1760	2N1761, 2N3155, 2N3156, *SK3009, *ECG104, *GE-3, *AA4, *PT40, *DS-503	
2N1761	2N1762, 2N3156, 2N3157, *DS-503, *PT50, *AA4, *GE-3, *ECG104, *SK3009	
2N1762	2N3157, *SK3009, *ECG104, *GE-3, *AA4, *DS-503, *TR-16	
2N1768		
2N1769		
-2N1779	*ECG101, *GE-6, *HEP641, *SK3011, *TR-08, *DS-72, *NR5, *AA2	
-2N1780	*AA2, *NR5, *DS-72, *TR-08, *SK3011, *HEP641, *GE-6, *ECG101	
-2N1781	*ECG101, *GE-6, *HEP641, *SK3011, *TR-08, *DS-72, *NR5, *AA2	
-2N1782	*AA1, *HF12M, *SK3005, *HEP3, *GE-2, *ECG160	
-2N1783	*ECG101, *GE-1, *HEP641, *SK3005, *HF12M, *DS25, *AA1	
-2N1784	*AA1, *DS25, *HF12M, *SK3005, *HEP3, *GE-1, *ECG160	

TRANSISTOR SUBSTITUTES

2N1785—2N1969

To Replace	Substitute This Type
2N1785	2N711, 2N711A, 2N711B, 2N829, 2N846A, 2N964, 2N964A, 2N965, 2N966, 2N967, 2N972, 2N973, 2N974, 2N982, 2N983, 2N984, 2N985, 2N1280, 2N1280A, 2N1693, 2N1726, 2N1746, 2N1748, 2N2168, 2N2273, 2N2400, 2N2401, 2N2795, 2N2796, 2N3320, 2N3412, 2N3883, 2S4331, 2S4446, 2S4451, *ECG160, *GE-9, *HEP2, *SK3006, *JR200, *DS56, *AA3, *TR-17
2N1786	2N500, 2N741, 2N741A, 2N828A, 2N1204, 2N1742, 2N1743, 2N1744, 2N1745, 2N1787, 2N1868, 2N2099, 2N2170, 2N2929, *TR-17, *AA3, *DS56, *JR200, *SK3006, *HEP2, *GE-9, *ECG160
2N1787	2N502B, 2N559, 2N705, 2N710, 2N711A, 2N828, 2N828A, 2N846A, 2N960, 2N960A, 2N976, 2N979, 2N980, 2N984, 2N1142, 2N1143, 2N1204A, 2N1499A, 2N1500, 2N1727, 2N1746, 2N1747, 2N1865, 2N2168, 2N2169, 2N2796, 2N3883, 2S4372, *ECG160, *GE-9, *HEP2, *SK3006, *JR200, *DS56, *AA3, *TR-17
2N1788	2N2189, 2N2957, 2N3323, 2N3324, 2N3325, *AA3, *CS56, *JR200, *SK3006, *HEP2, *GE-9, *ECG160
2N1789	2N1141, 2N1495, 2N2100, 2N2382, 2N2955, *ECG160, *GE-9, *HEP2, *SK3006, *JR200, *DS56, *AA3
2N1790	2N1788, 2N1866, 2N2556, 2N3323, 2N3324, 2N3325, *AA3, *DS56, *JR200, *HEP2, *GE-9, *ECG160
2N1808	2N636A, 2N1306, 2N1308, *ECG101, *GE-6, *HEP641, *SK3011, *NR5, *AA2
2N1809	2N1810, 2N1823, 2N1830
2N1810	2N1817, 2N1824, 2N1831
2N1811	2N1812, 2N1816, 2N1819, 2N1825, 2N1826, 2N1832, 2N1833
2N1812	2N1813, 2N1819, 2N1820, 2N1826, 2N1833
2N1813	2N1814, 2N1820
2N1814	
2N1816	2N1809, 2N1823, 2N1830
2N1817	2N1810, 2N1824, 2N1831
2N1818	2N1811, 2N1812, 2N1819, 2N1825, 2N1826, 2N1832, 2N1833
2N1819	2N1812, 2N1813, 2N1820, 2N1826, 2N1833
2N1820	2N1813, 2N1814
2N1823	2N1809, 2N1816, 2N1830
2N1824	2N1810, 2N1817, 2N1831
2N1825	2N1811, 2N1812, 2N1818, 2N1819, 2N1826, 2N1832, 2N1833
2N1826	2N1812, 2N1813, 2N1819, 2N1820, 2N1833
2N1830	2N1809, 2N1816, 2N1830
2N1831	2N1810, 2N1817, 2N1824
2N1832	2N1811, 2N1812, 2N1818, 2N1819, 2N1825, 2N1826, 2N1833
2N1833	2N1812, 2N1813, 2N1819, 2N1820, 2N1826
2N1837	2N1837A
2N1837A	
2N1838	2N1959A, 2N2218, 2N2537, 2N2848, 2N2958, 2N3724A, 2N4046, 2N4960, 2N5145, *HEP53, *ECG123A
2N1839	*ECG123A, *HEP53
2N1840	*HEP53, *ECG123A
-2N1853	2N599, 2N2048, 2N2374, 2N2635, *HEP253, *ECG100, *GE-2, *AT20M, *OS-26, *TR-14
-2N1854	*HEP253, *OS-26, *AT20M, *GE-2, *ECG102
2N1864	2N502A, 2N741A, 2N1742, 2N1743, 2N1744, 2N1745, 2N1789, 2N1867, 2N1868, 2N2381, 2N2929, *TR-17, *ECG126, *GE-9, *JR200, *DS56, *HEP2, *SK3008, *AA3
2N1865	2N838, 2N982, 2N1499B, 2N1866, 2N2168, 2N2795, 2N2796, 2N3323, 2N3324, 2N3325, *AA3, *SK3008, *HEP3, *DS56, *JR200, *GE-9, *ECG126, *TR-17
2N1866	2N2956, 2N3323, 2N3324, 2N3325, *ECG126, *GE-9, *JR200, *DS56, *HEP2, *SK3008, *AA3
2N1867	*AA3, *SK3008, *HEP2, *DS56, *JR200, *GE-9, *ECG160
2N1868	2N1141, 2N1142, 2N1143, 2N1742, 2N1743, 2N1744, *ECG160, *GE-9, *DS56, *HEP2, *AA3, *TR-17
2N1866	
2N1889	2N699B, 2N3107
2N1890	2N1711B
2N1893	2N699B, 2N2443, *HEP714, *SK3021, *ECG128, *GE-18, *SN60
2N1893A	
2N1899	2N1901
2N1900	
2N1901	2N1899
2N1902	2N1904
2N1903	
2N1904	2N1902
2N1905	*PT150, *DS5903, *GE-16, *ECG121, *SK3014, *HEP232
2N1906	2N1907, 2N1908, *HEP26, *SK3014, *ECG121, *GE-25, *DS503, *PT150
2N1907	2N1908, *PT250, *GE-25, *ECG121, *HEP232
2N1908	*HEP232, *ECG104, *GE-25, *PT250
2N1917	*SP70, *DS56, *GE-21, *ECG159, *HEP51, *TR-19
2N1918	2N1917, *TR-19, *HEP51, *ECG159, *GE-21, *DS56, *SP70
2N1919	*SP70, *DS56, *GE-21, *ECG159, *HEP51, *TR-28
2N1920	*TR-28, *HEP51, *ECG159, *GE-21, *DS56, *SP70
2N1921	*SP70, *DS56, *GE-21, *ECG159, *HEP51, *TR-28
2N1922	*ECG129
2N1924	2N1925, SF, T243, *ECG102A, *GE-2, *HEP253, *SK3004, *DS26, *HF3M, *AA1
2N1925	2N1926, *AA1, *HF3M, *DS26, *SK3004, *HEP254, *GE-2, *ECG102A
2N1926	*ECG102A, *GE-2, *HEP254, *SK3004, *DS26, *HF6M, *AA1
2N1936	2N1937, 1748-1210, 1748-1220, 1748-1230, 1748-1410, 1748-1430
2N1937	2N1936, 1748-1210, 1748-1220, 1748-1230, 1748-1410, 1748-1430
2N1954	*ECG102A, *GE-2, *HEP254, *SK3005, *AT100H, *AA1
2N1955	*AA1, *AT100H, *SK3005, *HEP254, *GE-2, *ECG102A
2N1956	*ECG102A, *GE-2, *HEP254, *SK3005, *AT100H, *AA1
2N1957	*AA1, *AT100H, *SK3005, *HEP254, *GE-2, *ECG102A
2N1958	2N1958A, 2N2217, 2N2477, 2N2618, 2N3252, 2N3253, 2N3444, 2N3554, 2N3831, 2N5188, 40539, BSX49, *ECG123A, *HEP53, *TR-25
-2N1958/18	2N742, 2N2220, *TR-25, *HEP50
2N1958A	2N2477, 2N2522, 2N3253, 2N3554, 2N3725, 2N5188, 2N5262, 2SC97
-2N1958A/51	2N2515, 2N2521, 2N3737
2N1959	2N1837, 2N1837A, 2N1959A, 2N2218, 2N2218A, 2N2360, 2N2380A, 2N2537, 2N2846, 2N2848, 2N2958, 2N3015, 2N3299, 2N3326, 2N3676, 2N3722, 2N3725A, 2N4047, 2N4960, 2N4961, 2SC479, *0B35, *BSY51, *BSY53, *TN53, *HEP53, *ECG123A
-2N1959/18	2N736B, 2N915, 2N2221, 2N2221A, 2N2516, 2N2539, 2N2897, 2N2900, 2N4014, 2N4400, 2N4951, 2N4962, 2N4963, 2N5368, 2N5820, 033029, MPS6530, MPS6531, *TN54, *HEP50
2N1959A	2N2848, 2N3725A, 2N4960, 2N4961
-2N1959A/51	2N2516, 2N2900
-2N1960	*HEP3, *ECG160, *GE-2, *AT20M, *DS26, *AA1
-2N1961	*GE-2, *DS26, *AA1, *DS26, *AT20M
-2N1962	2N521, 2N3648, *HEP50, *ECG123A
-2N1963	2N3647, 2N3648, *TR-21, *HEP50, *ECG123A
-2N1964	*HEP50, *ECG123A, *TR-25
-2N1965	2N2516, 2N2900, *HEP50, *ECG123A
-2N1969	2N599, 2N1316, 2N2374, *HEP254, *ECG102A, *GE-1, *HF12H, *OS-25, *AA1

Q1 To Replace	Substitute This Type
2N1970	2N1100, 2N1412, *AA5, *DS501, *PT515, *GE-4, *ECG105, *HEP233, *SK3012
2N1971	2N553, *SK3009, *HEP232, *ECG121, *GE-3, *PT50, *DS503, *AA4, *TR-01
2N1972	2N3300, *BCY65, *ECG123A, *HEP53
2N1973	2N1711B, 2N1890, *HEP53, *SK3020, *ECG123A, *GE-20, *DS66, *SN60
2N1974	2N699B, 2N1613B, 2N1889, 2N2102A, 2N3107, *SN60, *DS66, *GE-20, *ECG123A, *HEP53
2N1975	2N3108, *HEP53, *ECG123A, *GE-20, *DS66, *SN60
2N1976	2N1981, 2N2080, 2N2080A, 2N2081, 2N2081A, 2N2157, 2N2157A, 2N2158, 2N2158A, *PT501, *DS501, *GE-4, *ECG105, *HEP231, *SK3012, *AA5
2N1981	2N1982, 2N2079, 2N2079A, 2N2080, 2N2080A, 2N2158, 2N2158A, 2N2159A, *AA5, *SK3012, *HEP231, *ECG105, *GE-4, *DS501, *PT515
2N1982	2N2159, 2N2159A, *PT501, *DS501, *GE-4, *ECG105, *HEP233, *SK3012
2N1983	2N1420, 2N1420A, 2N1507, 2N1711, 2N1711A, 2N1986, 2N2049, 2N2192, 2N2192A, 2N2192B, 2N2960, 2N2961, 2N3300, *SK3020, *HEP53, *ECG123A, *GE-20, *DS66, *SN60
2N1984	2N697, 2N1613, 2N1613A, 2N1959A, 2N2270, 2N2848, 2N2868, 2N3015, 2N3299, 2N3326, 2N3724A
2N1985	2N696, *SN60, *DS66, *GE-20, *ECG123A, *HEP53
2N1985	2N696, 2N1958A, 2N1987, 2N2194, 2N2194A, 2N2196B, 2N2477, 2N3122, 2N3252, 2N3253, 2N3468, 2N3554, 2N3831, 2N5188, SE8001, *HEP53, *ECG123A, *GE-20, *DS66, *SN60
2N1986	2N1420, 2N1507, 2N1711A, 2N1972, 2N2049, 2N2960, 2N2961, 2N3300, *SN60, *DS66, *GE-20, *ECG123A, *HEP53
2N1987	2N656, 2N697, 2N1613A, 2N2951, 2N3015, 2N3122, 2N3299, 2N3326, 2SC32, 2SC116, 2SC152, 2SC594, BSY92, *HEP53, *ECG123A, *GE-20, *DS66, *SN60, *TR-25
2N1988	2N699, 2N699A, 2N499B, 2N1613B, 2N1889, 2N1974, 2N2102, 2N2102A, 2N2243, 2N2243A, 2N3036, 2N3107, 2N3723, 2N4001, 2N5148, 2SC96A, 2SC96A4, *SN60, *DS66, *GE-20, *ECG123A, *HEP53
2N1989	2N1573, 2N3108, 2N4000, 2N5148, SE7002, *ECG108, *GE-17, *EN10
2N1990	2N1573, 2N1989, 2N2890, 2N3108, 2N4000, 2N4239, 2N5146, 2SD121, 40367, SE7002
-2N1990/46	2N2459, 2N2518
2N1991	2N978, *SPTC, *GE-21, *ECG159, *HEP51, *TR-19
2N1993	*ECG101, *GE-5, *HEP641, *SK3011, *NR10, *DS-72
2N1994	*DS-72, *NR5, *GE-9, *ECG101, *TR-08, *AA2
2N1995	2N439, 2N439A, 2N634A, *TR-08, *ECG101, *GE-5, *NR5, *DS-72
2N1996	2N388A, 2N440, 2N440A, 2N635A, SF729B, *DS-72, *NR5, *GE-5, *ECG101, *TR-08, *AA2, *SK3011
2N1997	*SK3005, *HEP254, *AA1, *ECG100, *GE-2, *HF3H
2N1998	2N2374, *HF12H, *GE-2, *ECG100, *AA1, *HEP254, *SK3005
2N1999	*SK3005, *HEP2, *AA1, *ECG160, *GE-1, *HF12H, *DS-25
2N2000	*DS-66, *AT30H, *GE-1, *ECG102A, *AA1, *HEP254
2N2001	*HEP254, *AA1, *ECG102A, *GE-1, *HF3H, *DS25
2N2002	*DS26, *SPTC, *GE-21, *ECG159, *HEP51, *TR-19
2N2003	2N159, *HEP51, *ECG159, *GE-21, *SPTC, *DS26
2N2004	*DS26, *SPTC, *GE-21, *ECG159, *HEP51, *TR-28
2N2005	*TR-28, *HEP51, *ECG159, *GE-21, *SPTC, *DS26
2N2006	*DS26, *SPTC, *GE-21, *ECG159, *HEP51, *TR-28
2N2007	*TR-28, *HEP51, *ECG159, *GE-21, *SPTC, *DS26
-2N2008	*SN60
2N2015	2N2016
2N2016	
2N2017	*ECG128, *HEP243
2N2018	2N2019
2N2019	
2N2020	2N2021
2N2021	
2N2032	*ECG108
2N2033	2N2034
2N2034	2N2033
2N2035	52N1486
2N2036	
2N2038	2N696, 2N1564, 2N1958, 2N1985, 2N2106, 2N2195, 2N2195A, 2N2195B, 7A30, PT2540, SE8001, *ECG123A, *TR-25, *HEP53
2N2039	2N1975, 2N3444, 2N3830, 2N3831, *HEP53, *ECG123A
2N2040	2N697, 2N1410, 2N1410A, 2N1716, 2N1838, 2N1959, 2N1959A, 2N1984, 2N2108, 2N2218, 2N2224, 2N2410, 2N2846, 2N2868, 2N2958, 2N3015, 2N3299, 2N3326, 2N3724, 2SC97, 2SC479, 2SC708, 7A31, BSY51, BSY92, *ECG123A, *GE-20, *HEP53, *TR-25, *SN60
2N2041	2N1565, 2N1613, 2N1613A, 2N1717, 2N1837, 2N1837A, 2N1889, 2N1974, 2N1988, 2N2193, 2N2193A, 2N2193B, 2N2218A, 2N2380, 2N2380A, 2N2479, 2N2890, 2N2891, 2N3498, 2N3678, 2N3722, 2N3723, 2N3725, 2N4000, 2SC696, 2SC708A, BSY53, BSY87, SE8002, SE8010, *SN80, *HEP53, *GE-20, *ECG123A
2N2042	2N2042A
2N2042A	2N2042
2N2043	2N2043A
2N2043A	2N2043
2N2048	2N2635, *ECG160, *GE-9, *HEP2, *JR100, *DS56, *AA3
2N2049	2N1711A, 2N1890
2N2061	2N2137, 2N2137A, *PT25, *DS-503, *AA4, *HEP230, *SK3009, *GE-3, *ECG104
2N2061A	2N307, *ECG121, *HEP230, *AA4
2N2062	2N307, 2N2061A, 2N2142, 2N2142A, *AA4, *HEP230, *SK3009, *ECG104, *GE-3, *DS-503, *PT25
2N2062A	*GE-16, *ECG104, *HEP230, *AA4
2N2063	2N136, 2N2138A, 2N2139, 2N2139A, *AA4, *HEP230, *SK3009, *ECG104, *GE-3, *PT40, *DS-503
2N2063A	2N4578, 2N4578A, 2N1529, 2N1530, 2N1530A, 2N1534, 2N1534A, 2N1535, 2N1535A, 2N3611, 2N3612, *GE-16, *ECG104, *HEP232
2N2064	2N1529, 2N1529A, 2N1530, 2N1530A, 2N2063A, 2N2143, 2N2143A, 2N2144, 2N2144A, *HEP230, *SK3009, *ECG104, *GE-3, *DS-503, *PT40, *AA4
2N2064A	2N392, 2N1168, 2N1539A, 2N1540A, 2N1544A, 2N1545A, 2N3613, 2N3614, 2N4246, 2N4247, MP2060, MP2061, TI-3027, TI-3028, *AA4, *GE-16, *ECG104, *HEP230
2N2065	2N2140, 2N2140A, 2N2141, 2N2141A, *HEP232, *SK3009, *ECG104, *GE-3, *AA4, *PT50, *DS-503
2N2065A	2N4578, 2N1531, 2N1532, 2N1536, 2N1536A, 2N1537, 2N1537A, 2N2423, 2N3615, 2N3616, *AA4, *ECG104, *HEP232
2N2066	2N1531, 2N1531A, 2N1532, 2N1532A, 2N2065A, 2N2145, 2N2145A, 2N2146, 2N2146A, 2N2423, *HEP232, *SK3009, *ECG104, *GE-3, *AA4, *DS-503, *PT50
2N2066A	2N1541A, 2N1542A, 2N1546A, 2N1547A, 2N2425, *AA4, *ECG104, *HEP232
2N2067	*SK3009, *ECG104, *GE-3, *AA4, *PT40, *DS-503, *TR-16
2N2068	*PT50, *TR-01
2N2075	2N2075A, 2N2079, 2N2079A, *GE-4, *PT515, *DS501, *ECG105, *SK3012, *HEP233, *AA5
2N2075A	2N2075, 2N2079, 2N2079A, *AA5, *HEP233, *SK3012, *ECG105, *DS501, *GE-4
2N2076	2N2075, 2N2075A, 2N2076A, 2N2079, 2N2079A, 2N2080, 2N2080A, *GE-4, *DS501, *PT515, *ECG105, *SK3012, *HEP233, *AA5
2N2076A	2N2075, 2N2075A, 2N2076, 2N2079, 2N2079A, 2N2080, 2N2080A, *AA5, *HEP233, *SK3012, *ECG105, *DS501, *GE-4

TRANSISTOR SUBSTITUTES

2N207—2N2154

Q1 To Replace	Substitute This Type
2N2077	2N2076, 2N2076A, 2N2077A, 2N2080, 2N2080A, 2N2081, 2N2081A, *GE-4, *DS501, *PT515, *ECG105, *SK3012, *HEP231, *AA5
2N2077A	2N2076, 2N2076A, 2N2077, 2N2080, 2N2080A, 2N2081, 2N2081A, *AA5, *HEP231, *SK3012, *ECG105, *DS501, *GE-4
2N2078	2N2077, 2N2077A, 2N2078A, 2N2081, 2N2081A, 2N2082, 2N2082A, *GE-4, *PT501, *DS501, *ECG105, *SK3012, *HEP231, *AA5
2N2078A	2N1980, 2N2077, 2N2077A, 2N2078, 2N2081, 2N2081A, 2N2082, 2N2082A, *AA5, *HEP231, *SK3012, *ECG105, *DS501, *GE-4
2N2079	*GE-4, *DS501, *PT515, *ECG105, *SK3012, *HEP233, *AA5
2N2079A	2N2079, *AA5, *HEP233, *SK3012, *ECG105, *DS501, *GE-4
2N2080	2N2079, *GE-4, *DS501, *PT515, *ECG105, *SK3012, *HEP233, *AA5
2N2080A	2N2079, 2N2079A, 2N2080, *AA5, *HEP233, *SK3012, *ECG105, *DS501, *GE-4
2N2081	2N2080, *GE-4, *DS501, *PT515, *ECG105, *SK3012, *HEP231, *AA5
2N2081A	2N2080, 2N2080A, 2N2081, *AA5, *HEP231, *SK3012, *ECG105, *DS501, *GE-4
2N2082	2N2081, *GE-4, *DS501, *PT501, *ECG105, *SK3012, *HEP231, *AA5
2N2082A	2N2081, 2N2081A, 2N2082, *AA5, *HEP231, *SK3012, *ECG105, *DS501, *GE-4
2N2084	*ECG160, *GE-9, *DS41, *JR100, *SK3006, *HEP3, *AA3
2N2086	SF. T186
2N2089	2N2671, *GE-9, *ECG126, *DS56, *SK3006, *HEP3, *AA3
-2N2090	2N2089, 2N2671, *AA3, *HEP3, *SK3006, *DS56, *JR100, *ECG126, *GE-9
-2N2091	2N2089, 2N2671, *GE-9, *ECG160, *JR100, *DS56, *SK3006, *HEP3, *AA3
2N2092	2N2084, 2N2671, *AA3, *HEP635, *SK3007, *DS56, *JR100, *ECG126, *GE-9
-2N2093	*HE-9, *ECG160, *JR100, *DS56, *SK3008, *HEP3, *AA3
2N2095	*ECG123A
2N2096	*ECG123A
2N2097	2N1496, *DS556, *JR100, *GE-9
2N2098	*ECG160, *HEP2
2N2099	2N2100, *HEP2, *ECG160
2N2100	2N2382, *ECG160, *HEP2
2N2101	2N1208, *ST400
2N2102	2N1613B, 2N2102A, *HEP714, *SK3024, *ECG128
2N2102A	2N1613B
2N2106	2N2107, *ECG128, *HEP243, *GE-20, *SN80
2N2107	2N2108, *SN80, *GE-20, *HEP243, *ECG128
2N2108	*ECG128, *HEP243, *GE-20, *SN80
2N2109	2N2116, 2N2123, 2N2130
2N2110	2N2117, 2N2124, 2N2131
2N2111	2N2112, 2N2119, 2N2125, 2N2126, 2N2132, 2N2133
2N2112	2N2113, 2N2119, 2N2120, 2N2126, 2N2133
2N2113	2N2114, 2N2120
2N2114	
2N2116	2N2109, 2N2123, 2N2130
2N2117	2N2110, 2N2124, 2N2131
2N2118	2N2111, 2N2122, 2N2119, 2N2125, 2N2126, 2N2132, 2N2133
2N2119	2N2112, 2N2113, 2N2120, 2N2126, 2N2133
2N2120	2N2113, 2N2114
2N2123	2N2109, 2N2116, 2N2130
2N2124	
2N2125	2N2126
2N2126	
2N2130	2N2109, 2N2116, 2N2123
2N2131	2N2110, 2N2117, 2N2124
2N2132	2N2111, 2N2122, 2N2119, 2N2125, 2N2126, 2N2133
2N2133	2N2112, 2N2113, 2N2120, 2N2126, 2N2133
2N2137	2N2137A, 2N2138, 2N2138A, 2N2142, 2N2142A, 2N2143, 2N2143A, *AA4, *ECG104, *SK3009, *HEP230, *SK3009, *ECG104, *AA4
2N2137A	2N2137, 2N2138, 2N2138A, 2N2142, 2N2142A, 2N2143, 2N2143A, *AA4, *ECG104, *SK3009, *HEP230, *GE-3, *DS503
2N2138	2N2138A, 2N2139, 2N2139A, 2N2143, 2N2143A, 2N2144, 2N2144A, *DS503, *PT40, *GE-3, *HEP230, *SK3009, *ECG104, *AA4
2N2138A	2N2138, 2N2139, 2N2139A, 2N2143, 2N2143A, 2N2144, 2N2144A, *AA4, *ECG104, *SK3009, *HEP230, *GE-3, *DS503
2N2139	2N2139A, 2N2140, 2N2140A, 2N2144, 2N2144A, 2N2145, 2N2145A, *DS503, *PT50, *GE-3, *HEP232, *SK3009, *ECG104, *AA4
2N2139A	2N2139, 2N2140, 2N2140A, 2N2144, 2N2144A, 2N2145, 2N2145A, *AA4, *ECG104, *SK3009, *HEP232, *GE-3, *DS503
2N2140	2N2140A, 2N2141, 2N2141A, 2N2145, 2N2145A, 2N2146, 2N2146A, *DS503, *PT50, *GE-3, *HEP232, *SK3009, *ECG104, *AA4
2N2140A	2N2140, 2N2141, 2N2141A, 2N2145, 2N2145A, 2N2146, 2N2146A, *AA4, *ECG104, *SK3009, *HEP232, *GE-3, *DS503
2N2141	2N2141A, 2N2146, 2N2146A, *DS503, *GE-3, *HEP232, *ECG104, *AA4
2N2141A	2N2141, 2N2146, 2N2146A, *AA4, *ECG104, *HEP232, *GE-3, *DS503, *PT50
2N2142	2N2142A, 2N2143, 2N2143A, *PT40, *DS503, *GE-3, *HEP230, *SK3009, *ECG104, *AA4
2N2142A	2N2142, 2N2143, 2N2143A, *AA4, *ECG104, *SK3009, *HEP230, *GE-3, *DS503
2N2143	2N2143A, 2N2144, 2N2144A, *DS503, *PT40, *GE-3, *HEP230, *SK3009, *ECG104, *AA4
2N2143A	2N2143, 2N2144, 2N2144A, *AA4, *ECG104, *SK3009, *HEP230, *GE-3, *DS503
2N2144	2N2144A, 2N2145, 2N2145A, *DS503, *PT50, *GE-3, *HEP232, *SK3009, *ECG104, *AA4
2N2144A	2N2144, 2N2145, 2N2145A, *AA4, *ECG104, *SK3009, *HEP232, *GE-3, *DS503
2N2145	2N2145A, 2N2146, 2N2146A, *DS503, *PT50, *GE-3, *HEP232, *SK3009, *ECG104, *AA4
2N2145A	2N2145, 2N2146, 2N2146A, *AA4, *ECG104, *SK3009, *HEP232, *GE-3, *DS503
2N2146	2N2146A, *DS503, *PT50, *GE-3, *HEP232, *ECG104, *AA4
2N2146A	2N2146, *AA4, *ECG104, *HEP232, *GE-3
2N2147	*GE-16, *HEP232, *SK3014, *ECG104, *PT40, *DS503
2N2148	2N2147, *DS503, *PT40, *ECG121, *SK3014, *HEP232, *GE-3
2N2150	2N4115
2N2151	2N4115
2N2152	2N2152A, 2N2153, 2N2153A, 2N2156, 2N2156A, 2N2157, 2N2157A, *GE-4, *HEP231, *SK3012, *ECG105, *PT515, *DS501, *AA5
2N2152A	2N2152, 2N2153, 2N2153A, 2N2156, 2N2156A, 2N2157, 2N2157A, *AA5, *DS501, *ECG105, *HEP231, *GE-4
2N2153	2N2153A, 2N2154, 2N2154A, 2N2157, 2N2157A, 2N2158, 2N2158A, *GE-4, *HEP233, *SK3012, *ECG105, *DS501, *PT515, *AA5
2N2153A	2N2153, 2N2154, 2N2154A, 2N2157, 2N2157A, 2N2158, 2N2158A, *AA5, *DS501, *ECG105, *SK3012, *HEP233, *GE-4
2N2154	2N2154A, 2N2155, 2N2155A, 2N2158, 2N2158A, 2N2159, 2N2159A, *GE-4, *HEP237, *SK3012, *ECG105, *DS501, *PT515, *AA5

Q1 Q2	To Replace	Substitute This Type
	2N2154A	2N2154, 2N2155, 2N2155A, 2N2158, 2N2158A, 2N2159, 2N2159A, *AA5, *DS501, *ECG105, *SK3012, *HEP233, *GE-4
	2N2155	2N2155A, 2N2159, 2N2159A, *GE-4, *HEP233, *SK3012, *ECG105, *DS-501, *PT515, *AA5
	2N2155A	2N2155, 2N2159, 2N2159A, *ECG105
	2N2156	2N2156A, 2N2157, 2N2157A, *ECG105, *AA5, *PT501, *DS501, *SK3012, *HEP231, *GE-4
	2N2156A	2N2156, 2N2157, 2N2157A, *GE-4, *HEP231, *SK3012, *DS501, *AA5, *ECG105
	2N2157	2N2157A, 2N2158, 2N2158A, *ECG105, *AA5, *DS501, *PT515, *SK3012, *HEP233, *GE-4
	2N2157A	2N2157, 2N2158, 2N2158A, *GE-4, *HEP233, *SK3012, *DS501, *AA5, *ECG105
	2N2158	2N2158A, 2N2159, 2N2159A, *ECG105, *AA5, *DS501, *PT515, *SK3012, *HEP233, *GE-4
	2N2158A	2N2158, 2N2159, 2N2159A, *GE-4, *HEP233, *SK3012, *DS501, *AA5, *ECG105
	2N2159	2N2159A, *ECG105, *AA5, *DS-501, *PT515, *SK3012, *HEP233, *GE-4
	2N2159A	2N2159, *GE-4, *HEP233, *DS-501, *ECG105
	2N2162	2N4008, *ECG159, *HEP51, *DS56, *SP70, *GE-21, *TR-19
	2N2163	2N1917, 2N2162, 2N4007, *TR-19, *GE-21, *SP70, *DS56, *HEP51, *ECG159
	2N2164	*ECG159, *HEP51, *DS56, *SP70, *GE-21, *TR-19
	2N2165	*TR-19, *GE-21, *SP70, *SP70, *DS56, *HEP51, *ECG159
	2N2166	*ECG159, *HEP51, *DS56, *SP70, *GE-21, *TR-19
	2N2167	*TR-19, *GE-21, *SP70, *DS56, *HEP51, *ECG159
	2N2168	2N838, *ECG160, *HEP2, *DS56, *JR200, *GE-9, *AA3
	2N2169	2N838, 2N976, 2N2168, *AA3, *GE-9, *JR200, *DS56, *HEP2, *ECG160
	2N2170	2N828, 2N828A, 2N960, 2N968, 2N976, 2N2169, 2N2381, *ECG160, *HEP2, *DS56, *JR200, *GE-9, *AA3
	2N2171	*AA3
	2N2173	*AA1, *GE-1, *HF12H, *DS-25, *HEP254, *ECG100
	2N2175	*GE-2, *AT100H, *DS-26, *HEP253, *ECG102A, *AA1
	2N2176	2N865, 2N2176, 2N3058, 2N3977, 2N5229, *ECG106, *HEP251, *DS56, *SP70, *GE-21, *TR-30
	2N2177	2N865, 2N3058, 2N3977, 2N5229, *TR-30, *GE-21, *SP70, *DS56, *HEP251, *ECG106
	2N2178	2N863, 2N865, 2N2175, 2N2176, 2N2178, 2N3217, 2N3342, 2N3977, 2N4006, 2N5141, 2N5229, *ECG106, *HEP251, *DS26, *SP70, *GE-21, *TR-19
	2N2185	*HEP52, *ECG159
	2N2186	*HEP52, *ECG159, *TR-19, *GE-9, *DS56, *SP70
	2N2187	H. P. 2N2185
	2N2188	H. P. 2N2185
	2N2189	2N2189, 2N2190, 2N2191, 2N2957, *JR200, *DS41, *GE-9, *ECG160, *HEP2, *SK3006, *AA3
	2N2190	2N2191, *AA3, *SK3006, *HEP2, *ECG160, *GE-9, *DS41, *JR200
	2N2191	2N2191, *JR200, *DS41, *GE-9, *ECG160, *HEP2, *SK3006, *AA3
	2N2192	*AA3, *SK3006, *HEP2, *ECG160, *GE-9, *DS41, *JR200
	2N2192A	2N2192A, 2N2192B, 2N3300, *EN10, *GE-17, *ECG108
	2N2192B	2N2192, 2N2192A, 2N3300, *ECG108, *GE-17, *EN10
	2N2193	2N2193A, 2N2193B, *EN10, *GE-17, *ECG108
	2N2193A	2N2193, 2N2193B, *ECG108, *GE-17, *EN10
	2N2193B	2N2193, 2N2193A, *EN10, *GE-17, *ECG108
	2N2194	2N2194A, 2N2194B, 2N3110, 2N3252, 2N3253, 2N3554, 2N3725, 2N5188, 2N5262, 2SC97, *ECG123A, *GE-20, *SN80, *DS66, *HEP53
	2N2194A	2N2194, 2N2194B, 2N3110, 2N3252, 2N3253, 2N3554, 2N3725, 2N5188, 2N5262, 2SC97, *HEP53, *DS56, *SN80, *GE-20, *ECG123A
	2N2194B	2N2194, 2N2194A, 2N3110, 2N3252, 2N3253, 2N3554, 2N3725, 2N5188, 2N5262, 2SC97, *ECG123A, *GE-20, *SN80, *DS66, *HEP53
	2N2195	2N2194, 2N2194A, 2N2194B, 2N2195A, 2N2195B, 2N3122, 2N3252, 2N3468, 2N3554, 2N5188, *EN10, *GE-17, *ECG108
	2N2195A	2N2194, 2N2194A, 2N2194B, 2N2195, 2N2195B, 2N3122, 2N3252, 2N3468, 2N3554, 2N5188, *ECG108, *GE-17, *EN10
	2N2195B	2N2194, 2N2194A, 2N2194B, 2N2195, 2N2195A, 2N3122, 2N3252, 2N3468, 2N3554, 2N5188, *ECG108
	2N2196	*ECG108, *EN10, *GE-17
	2N2197	*GE-17, *EN10, *ECG108
	2N2199	2N741, 2N741A, 2N2200, *GE-9, *JR100, *DS-56, *ECG160, *HEP2, *AA3
	2N2200	2N741, 2N741A, 2N2199, *AA3, *HEP2, *ECG160, *JR100
	2N2201	
	2N2202	
	2N2203	
	2N2204	
	2N2205	*PN66, *ECG124, *SK3021, *GE-12
	2N2206	2N706, 2N706A, 2N706B, 2N706C, 2N708, 2N743A, 2N744A, 2N783, 2N784, 2N834, 2N835, 2N914, 2N2318, 2N2319, 2N2368, 2N2656, 2N2710, 2N3011, 2N3210, 2N3212, 2N3261, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3648, 2N4137, 2N5030, 2N5187, 2SC321, 2SC356, 2SC595, 40405, GET708, GET914, GET3013, GET3014, GET3646, K7218, MM194, MT1038, MT1038A, MT1039, PT2760, *GE-20, *TR-21, *SK3020, *HEP50, *ECG123A, *SN80, *DS-66
	2N2207	2N909, 2N3013, 2N3014, 2N3647, *EN10, *ECG123A, *HEP50, *TR-21, *GE-17
	2N2210	AF118, *GE-9, *SK3006, *ECG126, *HF75, *DS41
	2N2212	2N1100, 2N1412, 2N2493, 25B333, *AA5, *HEP233, *SK3012, *PT515, *DS-501, *ECG105, *GE-4
	2N2217	MP2833, MP2834, *GE-3, *ECG121, *DS503, *PT250, *SK3009, *HEP232
	-2N2217/51	2N3725, 2N5188, 2N5262
	2N2218	2N3737
	-2N2218/51	2N2537, 2N2848, 2N3725A, 2N4960, 2N4961, *ECG123
	2N2218A	2N5581
	2N2219	2N3678, 2N3722, 2N3723, 2N3725A, 2N4961, *ECG123
	-2N2219/51	2N2538, 2N3300, *HEP53
	2N2219A	
	2N2220	2N3737, *HEP55, *ECG123A
	2N2221	2N2221A, 2N2539, 2N4962, 2N4963, *ECG123A, *HEP55
	2N2221A	2N4963
	2N2222	2N2222A, 2N2540, *HEP55, *ECG123A
	2N2222A	
	2N2224	2N1837A, 2N2128, 2N2218A, 2N2537, 2N2846, 2N2848, 2N3015, 2N3299, 2N3326, 2N3678, 2N3722, 2N3725A, 2N4047, 2N4960, 2N4961
	2N2226	2N2230
	2N2227	2N2231
	2N2228	2N2229, 2N2232, 2N2233
	2N2229	2N2233
	2N2230	
	2N2231	
	2N2232	2N2233
	2N2233	
	2N2236	2N2618, *SN80, *ECG123A, *GE-20, *TR-25, *HEP53
	2N2237	2N2270, 2N2868, 2N3724A, 2N4046, 2N4960, 2N5145, *HEP53, *GE-20, *ECG123A, *SN80

TRANSISTOR SUBSTITUTES

2N2242-2N2352A

To Replace	Substitute This Type
2N2242	2N708A, 2N784A, 2N916, 2N916A, 2N2369A, 2N2501, 2N2847, 2N3009, 2H3013, 2N3014, 2N3301, 2N3862, 2N3946, 2N4962, 2SC67, 2SC68, 2SC639, 2SC764, FT3641, FT3642, GET2221, GE T7369, MM2483, MM3903, *TR-21, *GE-17, *HEP50, *ECG123A, *EN10
2N2243	2N699B, 2N2243A, 2N3020, 2N3036
2N2243A	2N699B, 2N2243, 2N3020, 2N3036
-2N2244	2N760, *EN10, *ECG123A, *HEP50, *GE-17
-2N2245	2N3242A, *GE-17, *HEP50, *ECG123A, *EN10
2N2246	*EN10, *ECG123A, *HEP50, *GE-17
-2N2247	2N718A, 2N736A, 2N4962, 2N4963, *GE-17, *HEP50, *ECG123A, *EN10
-2N2248	2N2645, *EN10, *ECG123A, *HEP50, *GE-17
-2N2249	*GE-17, *HEP50, *ECG123A, *EN10
-2N2250	2N760, *EN10, *ECG123A, *HEP50, *GE-17
-2N2251	2N3242A, *GE-17, *HEP50, *ECG123A, *EN10
-2N2252	*EN10, *ECG123A, *HEP50, *GE-17
-2N2253	2N718A, 2N736A, 2N4962, 2N4963, *GE-17, *HEP50, *ECG123A, *EN10
-2N2254	2N2645, *EN10, *ECG123A, *HEP50, *GE-17
-2N2255	*GE-17, *HEP50, *ECG123A, *EN10
2N2256	2N743, 2N2257, 2N5186, 40519, MM709, MM1743, MP52926-BRN, *EN10, *ECG123A, *HEP50, *GE-17, *TR-21
2N2257	2N709, 2N709A, 2N744, 2N588, 2N989, 2N2475, 2N2784, 2N5186, 25C428, MM1748, MP52926-RED, MP56568, MP56568A, MP56569, MP56570, MP5H02, MP5H03, MP5H31, *TR-21, *GE-17, *HEP50, *ECG123A, *EN10
2N2258	2N828, 2N828A, 2N960, 2N961, 2N962, 2N963, 2N966, 2N969, 2N970, 2N971, 2N2259, 2SA450, *JR100, *DS525, *ECG160, *HEP3, *GE-9, *AA3
2N2259	2N828, 2N828A, 2N960, 2N961, 2N962, 2N963, 2N966, 2N969, 2N970, 2N971, 2N2258, 2SA450, *AA3, *GE-9, *HEP3, *ECG160, *DS56, *JR100
2N2266	2N2267, 2N2268, 2N2269, *PT40, *ECG105, *SK3012, *GE-4
2N2267	2N2269, *GE-4, *SK3012, *ECG105, *PT40
2N2268	2N2266, 2N2267, 2N2269, *PT40, *ECG105, *SK3012, *GE-4
2N2269	2N2267, *GE-4, *SK3012, *ECG105, *PT40
2N2270	
2N2271	*AT20H, *DS-26, *ECG102, *HEP254, *GE-2, *AA1
2N2273	2N2927, *ECG160, *HEP3, *AA3, *GE-9, *DS56, *JR200
2N2274	2N858, 2N2971, MM4052, *SP70, *DS56, *GE-21, *TR-19, *HEP52, *ECG159
2N2275	M. P. 2N2274
2N2276	2N860, 2N2274, 2N2971, MM4052, *SP70, *DS56, *GE-21, *TR-19, *HEP52, *ECG159
2N2277	M. P. 2N2276
2N2278	*SP70, *DS56, *GE-21, *TR-19, *HEP52, *ECG159
2N2279	M. P. 2N2278
2N2280	*TR-19, *GE-21, *HEP52, *ECG159, *DS56, *SP70
2N2281	M. P. 2N2280
2N2282	*ECG104, *AT100M
2N2283	
2N2284	
2N2285	2N1751, *PT150, *ECG121, *HEP232, *AA4
2N2286	2N2287, *AA4, *HEP232, *ECG121, *PT150
2N2287	*PT150, *ECG121, *HEP232, *AA4
2N2288	2N2290, *SK3009, *ECG121, *PT150, *DS503, *GE-3
2N2289	2N3713, 2N3714, *GE-3, *DS503, *PT150, *ECG121, *SK3009, *HEP232
2N2290	*HEP232, *SK3009, *ECG121, *PT150, *DS503, *GE-3
2N2291	*GE-3, *DS503, *PT150, *ECG121, *SK3009, *HEP232
2N2292	2N1907, 2N2832, *HEP232, *SK3009, *ECG121, *PT150, *DS503, *GE-3
2N2293	2N1908, 2N2833, 2N2834, *GE-16, *DS503, *PT150, *ECG121, *SK3009, *HEP232
2N2294	MP2832, *HEP230, *SK3009, *ECG121, *PT250, *DS503, *GE-3
2N2295	*GE-16, *DS503, *PT250, *ECG121, *SK3009, *HEP232
2N2296	2N2212, MP2833, MP2834, *HEP232, *SK3009, *ECG121, *PT250, *DS503, *GE-3
2N2297	
-2N2297/51	2N2460, 2N2516
2N2303	2N2801, 2N2905, 2N2905A, 2N3503, 2N3671, 2N4037, 2N4890, 40537, 40634, *GE-21, *SP70, *ECG159, *HEP51
2N2304	2N2035, *HEP243
2N2305	2N1487, 2N1489, 2N3232, 2N3445, 2N5034, 2N5036, 40543, 40633, AMF115, AMF116, B170004-BLK, B170004-BRN, B170013, B170022, BDY23A, HST9201, HST9205, HST9206, HST9801, HST9802, *HEP247, *ECG130, *HM100, *GE-19
2N2308	2N1484
2N2309	2N1253, 2N2320, 25C352, 85Y63, *GE-20, *TR-25, *SP70, *ECG123A, *HEP53
2N2310	*HEP53, *ECG123A, *TR-25
2N2311	
2N2312	*TR-25, *ECG123A, *HEP53
2N2313	2N2459, 2N2518
2N2314	2N2312, 2N2396, 2N2515, 2N2521, *HEP53, *ECG123A, *TR-25
2N2315	2N2317, 2N2396, 2N2516, MM3903, T1S99, *ECG123A, *HEP53
2N2316	2N2519
2N2317	2N2460, 2N2516
2N2318	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2501, 2N3011, 2N3013, 2N3014, 2N3210, 2N3605A, 2N3606A, 25C67, 25C68, 25C321, 25C639, 25C764, GET708, GET914, GET7236, GET3013, GET3014, GET3646, *HEP50, *ECG123A, *TR-21, *GE-21, *EN80
2N2319	2N3013, 2N3014, 2N4123, 2N4264, BC173B, *TR-21, *ECG123A, *HEP53
2N2320	85Y43, *HEP53, *ECG123A
2N2330	*GE-20, *ECG123, *SN80
2N2331	*SN80, *ECG123A, *GE-20, *HEP50
2N2332	*HEP52, *GE-21, *TR-19, *ECG159, *SP70, *DS26
2N2333	*DS26, *SP70, *ECG159, *TR-19, *GE-2, *HEP52
2N2334	*HEP52, *GE-21, *TR-19, *ECG159, *SP70
2N2335	*SP70, *DS26, *ECG159, *TR-19, *GE-21, *HEP52
2N2336	*HEP52, *GE-21, *TR-28, *ECG159, *DS26, *SP70
2N2337	*SP70, *DS26, *ECG159, *TR-28, *GE-21, *HEP52
2N2338	
2N2339	2N1049, 2N1049A, 2N1049B, 2N1768
2N2349	*GE-20, *HEP53, *ECG123A, *SN80
2N2350	2N2350A
2N2350A	2N2350
2N2351	2N2351A, 2N2460, 2N2516
2N2351A	2N2351, 2N2460, 2N2516
2N2352	2N2352A, 2N2515, 2N2521, 2N3737
2N2352A	2N2352, 2N2515, 2N2521, 2N3737

To Replace	Substitute This Type
2N2353	2N2352, 2N2352A, 2N2353A, 2N2521, *ECG123A, *HEP53
2N2352A	2N2352, 2N2352A, 2N2353, 2N2521, *HEP53, *ECG123A
2N2357	*GE-3, *DS503, *PT250, *HEP232, *ECG121
2N2358	2N2359, *ECG121, *HEP232, *PT250, *DS503, *GE-3
2N2359	
2N2360	2N2398, *GE-9, *DS56, *JR100, *HEP2, *ECG160
2N2361	2N2360, 2N2362, 2N2398, 2N2399, *ECG160, *HEP2, *JR100, *DS56, *GE-9, *TR-05
2N2362	2N2360, 2N2361, 2N2398, 2N2399, *TR-05, *GE-9, *DS56, *JR100, *HEP2, *ECG160
-2N2363	*HEP3, *JR100, *DS56, *GE-9, *AA3
2N2364	2N2364A, 2N2519
2N2364A	2N2364, 2N2519
2N2368	2N743A, 2N744A, 2N2710, 2N3210, 2N3510, 2N3511, 2N3648, *HEP50, *ECG123A
2N2369	*ECG123A, *HEP50
2N2369A	2N2369, 2N3862, 2N4873, 25C639, 25C764, *HEP50, *ECG123A
2N2370	2N1024, 2N1220, 2N1228, 8CY33, MM4052, SHA7532, *ECG159, *HEP51, *TR-19, *GE-21, *DS26, *SP70
2N2371	2N1024, 2N1219, 2N1228, 2N3401, 8CY33, MM4052, SHA7532, *SP70, *DS26, *GE-21, *TR-19, *HEP51, *ECG159
2N2372	MM4052, *ECG159, *HEP52, *TR-19, *GE-21, *DS26, *SP70
2N2373	MM4052, *SP70, *DS26, *GE-21, *TR-19, *HEP52, *ECG159
2N2374	*ECG102, *HEP254, *SK3004, *GE-2, *DS26
2N2375	*HF12M, *GE-1, *SK3004, *HEP254, *ECG102
2N2376	M.P., 2N2375
2N2377	2N861, 2N869, 2N978, 2N2411, 2N2862, 2N2969, 2N2971, 2N4008, FT1746, GET3638, MM4052, MP5690, 5A411, *TR-19, *GE-21, *HEP52, *ECG159, *SP70
2N2378	2N860, 2N861, 2N862, *SP70, *DS26, *ECG159, *HEP52, *GE-21, *TR-19
2N2380	2N1837, 2N1837A, 2N2218A, 2N2380A, 2N3498, 2N3678, 2N3722, 2N3723, 2N3725A, 2N4047, 2N4961, *0635, 85Y53, 85Y87, SE8010, TN53
2N2380A	2N4924, 2N4961, 25C353
2N2381	2N2382, *HEP2, *ECG160
2N2382	*ECG160, *HEP2
2N2387	2N2312, 2N2315, 2N2396, 2N2523, MM3903, *ECG123A, *SN80, *TR-25, *GE-20
2N2388	*GE-20, *SN80, *ECG123A
2N2389	2N2390, *ECG123, *SN80, *GE-20, *TR-25
2N2390	*GE-20, *SN80, *ECG123
2N2393	*ECG159, *SP70, *GE-21, *TR-28
2N2394	*TR-28, *GE-21, *SP70, *ECG159
2N2395	2N2389, *ECG106, *SN60, *GE-21, *TR-25
2N2396	2N2390, 2N2900, *GE-20, *SN80, *ECG123
-2N2397	2N3013, 2N3014, *ECG123, *SN80, *GE-20
2N2398	2N2360, *GE-9, *JR100, *DS56, *ECG160, *HEP2
2N2399	2N2360, 2N2361, 2N2362, 2N2398, *HEP2, *ECG160, *DS56, *JR100, *GE-9, *TR-05
2N2400	2N711, 2N711A, 2N711B, 2N829, 2N964, 2N964A, 2N965, 2N966, 2N967, 2N972, 2N973, 2N974, 2N985, 2N2401, 25A451, *GE-1, *JR100, *DS25, *ECG160, *HEP3, *AA3
2N2401	2N827, 2N2402, *AA3, *HEP3, *ECG160, *DS25, *JR100, *GE-1
2N2402	2N827, *GE-9, *JR100, *DS56, *ECG160, *HEP3, *AA3
2N2405	2N2436, *HEP17, *ECG128
2N2410	2N2193, 2N2193A, 2N2193B, 2N2218, 2N2270, 2N2537, 2N2848, 2N2868, 2N3015, 2N3109, 2N3299, 2N3725A, 2N4960, 2N4961, TN53
-2N2410/51	
2N2411	2N869, 2N3829, *TR-19, *GE-21, *ECG159, *HEP52, *SP70
2N2412	2N727, 2N869A, 2N3905, 2N4402, 2N4403, 85W72, MM3905, *SP70, *HEP52, *ECG159, *GE-21, *TR-30
-2N2413	2N916, 2N916A, 2N2221, 2N2501, 2N2539, 2N3013, 2N3014, 2N3016, 2N3017, 2N3018, 2N3019, 2N3020, 2N3021, 2N3022, 2N3023, 2N3024, 2N3025, 2N3026, 2N3027, 2N3028, 2N3029, 2N3030, 2N3031, 2N3032, 2N3033, 2N3034, 2N3035, 2N3036, 2N3037, 2N3038, 2N3039, 2N3040, 2N3041, 2N3042, 2N3043, 2N3044, 2N3045, 2N3046, 2N3047, 2N3048, 2N3049, 2N3050, 2N3051, 2N3052, 2N3053, 2N3054, 2N3055, 2N3056, 2N3057, 2N3058, 2N3059, 2N3060, 2N3061, 2N3062, 2N3063, 2N3064, 2N3065, 2N3066, 2N3067, 2N3068, 2N3069, 2N3070, 2N3071, 2N3072, 2N3073, 2N3074, 2N3075, 2N3076, 2N3077, 2N3078, 2N3079, 2N3080, 2N3081, 2N3082, 2N3083, 2N3084, 2N3085, 2N3086, 2N3087, 2N3088, 2N3089, 2N3090, 2N3091, 2N3092, 2N3093, 2N3094, 2N3095, 2N3096, 2N3097, 2N3098, 2N3099, 2N3100, 2N3101, 2N3102, 2N3103, 2N3104, 2N3105, 2N3106, 2N3107, 2N3108, 2N3109, 2N3110, 2N3111, 2N3112, 2N3113, 2N3114, 2N3115, 2N3116, 2N3117, 2N3118, 2N3119, 2N3120, 2N3121, 2N3122, 2N3123, 2N3124, 2N3125, 2N3126, 2N3127, 2N3128, 2N3129, 2N3130, 2N3131, 2N3132, 2N3133, 2N3134, 2N3135, 2N3136, 2N3137, 2N3138, 2N3139, 2N3140, 2N3141, 2N3142, 2N3143, 2N3144, 2N3145, 2N3146, 2N3147, 2N3148, 2N3149, 2N3150, 2N3151, 2N3152, 2N3153, 2N3154, 2N3155, 2N3156, 2N3157, 2N3158, 2N3159, 2N3160, 2N3161, 2N3162, 2N3163, 2N3164, 2N3165, 2N3166, 2N3167, 2N3168, 2N3169, 2N3170, 2N3171, 2N3172, 2N3173, 2N3174, 2N3175, 2N3176, 2N3177, 2N3178, 2N3179, 2N3180, 2N3181, 2N3182, 2N3183, 2N3184, 2N3185, 2N3186, 2N3187, 2N3188, 2N3189, 2N3190, 2N3191, 2N3192, 2N3193, 2N3194, 2N3195, 2N3196, 2N3197, 2N3198, 2N3199, 2N3200, 2N3201, 2N3202, 2N3203, 2N3204, 2N3205, 2N3206, 2N3207, 2N3208, 2N3209, 2N3210, 2N3211, 2N3212, 2N3213, 2N3214, 2N3215, 2N3216, 2N3217, 2N3218, 2N3219, 2N3220, 2N3221, 2N3222, 2N3223, 2N3224, 2N3225, 2N3226, 2N3227, 2N3228, 2N3229, 2N3230, 2N3231, 2N3232, 2N3233, 2N3234, 2N3235, 2N3236, 2N3237, 2N3238, 2N3239, 2N3240, 2N3241, 2N3242, 2N3243, 2N3244, 2N3245, 2N3246, 2N3247, 2N3248, 2N3249, 2N3250, 2N3251, 2N3252, 2N3253, 2N3254, 2N3255, 2N3256, 2N3257, 2N3258, 2N3259, 2N3260, 2N3261, 2N3262, 2N3263, 2N3264, 2N3265, 2N3266, 2N3267, 2N3268, 2N3269, 2N3270, 2N3271, 2N3272, 2N3273, 2N3274, 2N3275, 2N3276, 2N3277, 2N3278, 2N3279, 2N3280, 2N3281, 2N3282, 2N3283, 2N3284, 2N3285, 2N3286, 2N3287, 2N3288, 2N3289, 2N3290, 2N3291, 2N3292, 2N3293, 2N3294, 2N3295, 2N3296, 2N3297, 2N3298, 2N3299, 2N3300, 2N3301, 2N3302, 2N3303, 2N3304, 2N3305, 2N3306, 2N3307, 2N3308, 2N3309, 2N3310, 2N3311, 2N3312, 2N3313, 2N3314, 2N3315, 2N3316, 2N3317, 2N3318, 2N3319, 2N3320, 2N3321, 2N3322, 2N3323, 2N3324, 2N3325, 2N3326, 2N3327, 2N3328, 2N3329, 2N3330, 2N3331, 2N3332, 2N3333, 2N3334, 2N3335, 2N3336, 2N3337, 2N3338, 2N3339, 2N3340, 2N3341, 2N3342, 2N3343, 2N3344, 2N3345, 2N3346, 2N3347, 2N3348, 2N3349, 2N3350, 2N3351, 2N3352, 2N3353, 2N3354, 2N3355, 2N3356, 2N3357, 2N3358, 2N3359, 2N3360, 2N3361, 2N3362, 2N3363, 2N3364, 2N3365, 2N3366, 2N3367, 2N3368, 2N3369, 2N3370, 2N3371, 2N3372, 2N3373, 2N3374, 2N3375, 2N3376, 2N3377, 2N3378, 2N3379, 2N3380, 2N3381, 2N3382, 2N3383, 2N3384, 2N3385, 2N3386, 2N3387, 2N3388, 2N3389, 2N3390, 2N3391, 2N3392, 2N3393, 2N3394, 2N3395, 2N3396, 2N3397, 2N3398, 2N3399, 2N3400, 2N3401, 2N3402, 2N3403, 2N3404, 2N3405, 2N3406, 2N3407, 2N3408, 2N3409, 2N3410, 2N3411, 2N3412, 2N3413, 2N3414, 2N3415, 2N3416, 2N3417, 2N3418, 2N3419, 2N3420, 2N3421, 2N3422, 2N3423, 2N3424, 2N3425, 2N3426, 2N3427, 2N3428, 2N3429, 2N3430, 2N3431, 2N3432, 2N3433, 2N3434, 2N3435, 2N3436, 2N3437, 2N3438, 2N3439, 2N3440, 2N3441, 2N3442, 2N3443, 2N3444, 2N3445, 2N3446, 2N3447, 2N3448, 2N3449, 2N3450, 2N3451, 2N3452, 2N3453, 2N3454, 2N3455, 2N3456, 2N3457, 2N3458, 2N3459, 2N3460, 2N3461, 2N3462

TRANSISTOR SUBSTITUTES

2N2463-2N2566

To Replace	Substitute This Type
2N2463	2N2459, 2N2464, 2N2518
2N2464	2N2460
2N2465	2N2461, 2N2462, 2N2466
2N2466	2N2462, *AA1, *AT100H, *HEP50, *ECG123A
2N2467	*HEP238
2N2468	*ECG102, *AT100H, *AA1
2N2469	*AA1, *AT100H, *DS26, *ECG102, *GE-2
2N2474	2N923, 2N925, 2N943, 2N944, 2N945, 2N1025, 2N1439, 2N1641, SHA7530
2N2475	2N709, 2N2784, 2N3633, 2N3959, 2N3960, 2N5200, 2N5201, MT1060A, *HEP56
-2N2475/46	2N5200, 2N5201, MT1060A
-2N2475/51	2N5200, 2N5201, MT1060A
2N2476	2N3512, *HEP53, *ECG123A
2N2477	2N5188, *ECG123A, *HEP53
-2N2478	
2N2479	2N1837, 2N1837A, 2N2218A, 2N3498, 2N3678, 2N3722, 2N3723, 2N3725, 2N3725A, 2N4047, 2N4961, SE8010
2N2481	2N708A, 2N916, 2N916A, 2N2221, 2N2501, 2N2539, 2N2845, 2N3115, 2N3301, 2N3647, 2N4013, 2N4951, 2N4962, 2N5146, 2N5368, 85W82, FT3641, FT3642, GI-3641, *HEP50, *ECG123A, *GE-17, *EN10
-2N2482	2N797, *ECG103, *HEP641
2N2483	2N718A, 2N736A, 2N2317, 2N2390, 2N2523, 2N3946, 2N4962, 2N4963, FT3722, MM2483, MM3903, T1599, *HEP50, *ECG123A
2N2484	2N2484A, 2N2524, MM2484, MM3904, T1598, *ECG123A, *HEP50
2N2484A	MM2484, T1597
2N2487	2N828, 2N846A, 2N960, 2N968, 2N976, 2N2796, 2SA372, MM380, *HEP3, *SK3006, *ECG126, *JR30, *DS25, *GE-9, *AA1
2N2488	2N828, 2N846A, 2N960, 2N968, 2N976, 2N2796, 2SA372, MM380, *AA1, *GE-9, *DS25, *JR30, *ECG126, *SK3006, *HEP3
2N2489	2N2796, MM380, *HEP3, *SK3006, *ECG126, *JR30, *DS25, *GE-9, *AA1
2N2490	2N174, 2N1099, 2N1100, 2N1412, 2N1970, 2N2075, 2N2075A, 2N2492, 2N2493, 2SB334, *AA5, *GE-4, *DS501, *PT501, *ECG105, *SK3012, *HEP233
2N2491	2N173, 2N1099, 2N2075, 2N2075A, 2N2076, 2N2079A, 2N2079, 2N2080, 2N2080A, 2SB332, 2SB333, *HEP233, *SK3012, *ECG105, *PT501, *DS501, *GE-4, *AA5
2N2492	2N174, 2N1100, 2N1412, 2N2493, 2SB334, *AA5, *GE-4, *DS501, *PT501, *ECG105, *SK3012, *HEP233
2N2493	2N1100, 2N1412, *HEP233, *SK3012, *ECG105, *PT501, *DS501, *GE-4, *AA5
2N2495	2N2496, 2N2654, *HEP2, *SK3006, *ECG160, *HF75, *DS-41, *GE-9
2N2496	*GE-9, *HF75, *ECG160, *SK3006, *HEP2
2N2501	*HEP50, *ECG123A, *EN10, *GE-17
2N2509	2N720A, 2N740A, 2N2519, *ECG154
2N2510	*ECG154
2N2511	
-2N2512	*ECG160
2N2514	*TR-25
2N2515	2N2459
2N2516	2N2461, 2N2462
2N2517	
2N2518	
2N2519	
2N2520	*TR-25, *ECG123A, *HEP53
2N2521	*HEP53, *ECG123A
2N2522	*ECG123A, *HEP53
2N2523	*HEP53, *ECG123A
2N2524	*ECG123A, *HEP53
2N2525	
2N2526	2N3713, 2N3714, 2N4242, *HEP627, *ECG127, *PT150
2N2527	2N2528, *PT150, *ECG127, *HEP234, *GE-25
2N2528	*GE-25, *HEP234, *ECG127
-2N2529	2N758B, 2N2310, 2N2520, *ECG123A, *HEP50, *SK3020, *GE-20, *TR-25, *SN80, *DS-66
-2N2530	2N717, 2N839, 2N842, 2N2310, 2N2314, MPS6544, *DS-66, *SN80, *TR-25, *GE-20, *SK3020, *HEP50, *ECG123A
-2N2531	2N708A, 2N718, 2N780, 2N840, 2N843, 2N2312, 2N2315, 2N2387, 2N2483, 2N2521, 2N2523, 2N3301, 2N3693, 2N3946, 2N3973, 2N3975, 2N4140, 2N4994, 2SC838, 2SC839, 2SC896, 8FY39-1, 85Y93, EN697, GET2221, MM2483, MPS3693, MPS3826, MPS6565, MPS6591, PET1001, SE1001, T1587, *ECG123A, *HEP50, *SK3020, *GE-20, *TR-25, *SN80, *DS-66
-2N2532	2N708A, 2N718, 2N780, 2N843, 2N916, 2N916A, 2N2312, 2N2315, 2N2387, 2N2483, 2N2521, 2N2523, 2N3301, 2N3693, 2N3862, 2N3903, 2N3946, 2N3973, 2N3974, 2N3975, 2N3976, 2N4140, 2N4966, 2N4994, 2N5027, 2N5824, 2SC318, 2SC838, 2SC839, 2SC896, 8FY39-1, 85Y93, EN697, EN916, GET2221, MM2483, MM3903, MPS3693, MPS3826, MPS6565, MPS6591, PET1001, SE1001, T1587, *DS-66, *SN80, *TR-25, *GE-20, *SK3020, *HEP50, *ECG123A
-2N2533	2N708A, 2N718, 2N780, 2N840, 2N843, 2N2312, 2N2315, 2N2387, 2N2483, 2N2521, 2N2523, 2N3301, 2N3693, 2N3946, 2N3973, 2N3975, 2N4140, 2N4994, 2SC838, 2SC839, 2SC896, 8FY39-1, 85Y93, EN697, EN916, GET2221, MM2483, MPS3693, MPS3826, MPS6565, MPS6591, PET1001, SE1001, T1587, *HEP50, *SK3020, *GE-20, *TR-25, *SN80, *DS-66
-2N2534	*ECG123A, *HEP50, *SK3020, *GE-20, *TR-25, *SN80, *DS-66
	2N916, 2N916A, 2N432A, 2N3930, 2N3974, 2N3976, 2N4227, 2N4966, 2N5824, 2N5825, 2SC318, 2SC943, 8FY39-2, EN916, *DS-66, *GE-20, *SK3020, *HEP50, *ECG123A
2N2537	2N219A, 2N4960, 2N4961
2N2538	2N2219, 2N3300
2N2539	2N3643, 2N4962, 2N4963, *ECG123A, *HEP50
2N2540	2N2222, 2N2222A, *HEP50, *ECG123A
2N2551	
2N2552	2N1038-1, 2N1039-1, 2N1042-1, 2N1043-1, 2N2553, 2N2560, 2N2561, *AT100M
2N2553	2N1039-1, 2N1040-1, 2N1043-1, 2N1044-1, 2N2554, 2N2561, 2N2562, *AT100M
2N2554	2N1041, 2N1041-1, 2N1044-1, 2N1045-1, 2N2555, 2N2562, 2N2563, *AT100M
2N2555	2N1041-1, 2N1045-1, 2N2563
2N2556	2N1038-2, 2N1039-2, 2N1042, 2N1043, 2N2557, *AT100H
2N2557	2N1039-2, 2N1040-2, 2N1043, 2N1044, 2N2558, *AT100H
2N2558	2N1040-2, 2N1041-2, 2N1044, 2N1045, 2N2559
2N2559	2N1041-2, 2N1045
2N2560	2N2561
2N2561	2N2562
2N2562	2N2563
2N2563	
2N2564	2N2565, *AT100H, *DS503, *GE-3, *ECG102
2N2565	2N2566, *ECG102, *GE-3, *DS503, *AT100H
2N2566	2N2567

Q1 Q2 To Replace	Substitute This Type
2N2567	
2N2569	2N2331, 2N2570, 2N3241A, 2N5224, 8C170B, 8C173C, *HEP50, *EGG123A
2N2570	2N2331, 2N2569, 2N3241A, 2N5224, 8C170B, 8C173C, *EGG123A, *HEP50
2N2580	
2N2580M	
2N2581	
2N2582	
2N2583	
2N2586	2N2511, 2N3117, T1597, *HEP50, *EGG123A, *EN10, *DS-81, *GE-17
2N2590	
2N2591	
2N2592	2N2593
2N2593	
2N2594	
2N2595	2N2590, *TR-28, *EGG159, *HEP52
2N2596	2N2591, *HEP52, *EGG159, *TR-28
2N2597	2N2592, 2N2593, *EGG159, *HEP52
2N2598	*EGG159
2N2599	2N2599A, *EGG159
2N2599A	2N2599
2N2600	2N2600A, *EGG159
2N2600A	2N2600
2N2601	2N2595, *EGG159, *HEP52, *TR-28
2N2602	2N2596, *TR-28, *HEP52, *EGG159
2N2603	2N2597, *EGG159, *HEP52
2N2604	2N2597, 2N2603, 2N3580, *HEP52, *EGG159
2N2605	2N2605A, *EGG159, *HEP52
2N2605A	*HEP52, *EGG159
2N2610	2N117, 2N332, 2N472, 2N472A, 2N475A, 2N7588, 2N936, 2N1149, 2N2310, 2N2520, 2SC478, *EGG123A, *HEP53, *TR-25, *GE-17, *EN10
-2N2611	
2N2612	*PT40, *DS-503, *GE-3, *EGG104
2N2613	*EGG102A, *GE-2, *DS-26, *AT10H, *HEP632, *SK3004, *AA1
2N2613+	
2N2614	*AA1, *SK3004, *HEP632, *AT20H, *DS-26, *GE-2, *EGG102A
2N2615	2N2369A, 2N3862, 2N5029, 2SC601N, 2SC639, 2SC764, *MPS10, *MPS11, *MT1060A, *GE-11, *SK3018
2N2616	2N744A, 2N2369, 2N2369A, 2N2615, 2N2710, 2N2729, 2N4137, 2N5029, 2SC601, 2SC601N, 2SC689, *MM19A1, *MPS2369, *MPS6507, *MT1060A, T1587, *SK3019, *HEP56, *GE-17, *EGG108, *DS74, *EN10, *AF4
2N2618	*HEP713, *EGG154
-2N2618/46	2N2521, *HEP50
2N2631	
2N2632	2N2633, 2N4115, HST6014, SOT6014
2N2633	2N2634, 2N4115
2N2634	
2N2635	*HEP3, *EGG160, *JR200, *AA3
2N2636	*PT250, *DS503, *EGG121, *HEP236, *SK3009
2N2637	2N1652, 2N1653, 2N2358, 2N2359, *SK3009, *HEP236, *EGG121, *DS503, *PT250
2N2638	*PT250, *HEP236
2N2645	2N871
-2N2648	*HEP2, *AT100H, *DS26, *EGG158, *GE-2, *AA1
-2N2651	2N708, 2N743A, 2N744A, 2N914, 2N2710, 2N3210, 2N3510, 2N3648, *GE-17, *EGG108, *EN10, *HEP56
2N2654	2N3783, 2N3784, *GE-9, *HEP636, *SK3006, *JR200, *DS41, *EGG160, *AA3
2N2656	2N784A, 2N2481, 2N2501, 2N3013, 2N3014, 2N3511, 2N3647, 2SC67, 2SC69, 2SC69, 2SC764, 85W82, *GE12369, *PT720, *EGG123A, *EN10, *HEP50, *GE-17, *TR-21, 2N2658
2N2657	
2N2658	
2N2659	2N2660, 2N2661, 2N2665
2N2660	2N2665, 2N2666, 2N2667
2N2661	2N2665
2N2662	2N2663, 2N2668, 2N2669
2N2663	2N2664, 2N2669, 2N2670
2N2664	2N2670
2N2665	2N2666, 2N2667
2N2666	2N2667
2N2667	2N2666
2N2668	2N2669
2N2669	2N2670
2N2670	
2N2671	2N2084, *GE-9, *HEP3, *SK3004, *JR200, *DS41, *EGG160, *AA3
2N2672	2N2635, *AA3, *EGG160, *DS41, *JR200, *SK3006, *HEP635, *GE-9
-2N2673	2N2310, 2N2514, 2N2520, *EGG123A, *HEP50, *GE-17, *TR-25, *EN10
-2N2674	2N2314, 2N2395, *EN10, *TR-25, *GE-17, *HEP52, *EGG123A
-2N2675	2N2312, 2N2515, 2N2521, 2N2523, 2SC896, *EGG123A, *HEP50, *GE-17, *TR-25, *EN10
-2N2676	2N2522, 2N2524, *MM3904, *HEP50, *EGG123A
-2N2677	2N2312, 2N2314, 2N2387, 2N2395, 2N2521, *EGG123A, *HEP50, *TR-25
-2N2678	2N2522, *HEP50, *EGG123A
2N2691	2N2358, 2N2359
2N2691A	
-2N2692	*EGG123A, *HEP50
-2N2693	*HEP50, *EGG123A
-2N2694	*TR-24
2N2695	2N5811, *GE-21, *EGG159, *HEP52, *SP70
2N2696	2N869A, 2N2695, 2N9811, 8C192, 85W72, D29E01, SE8540, TQ62, *SP70, *HEP52, *EGG159, *GE-21
2N2697	2SC428, 2SC460, 2SC461, 2SC595, 8C173B, EN744, EN3011, *MPS2926-RED, *PT720, *EGG108, *HEP722, *SK3020, *EN40, *DS-81, *GE-17, *TR-21
2N2698	HST4554, SOT4554
2N2706	258371, *HEP254, *SK3004, *EGG158, *GE-1, *HF3H, *DS-26, *AA1
2N2707	M.P. 2N2706, 2N2430
2N2708	40413, *SK3019, *HEP56, *EGG108, *GE-17, *AF4, *DS-74, *EN10
2N2710	2N744A, 2N3511, 2N3648, *HEP56, *EGG108
2N2711	2N744, 2N2318, 2N2319, 2N2656, 2N2722, 2N3011, 2N3605, 2N3606, 2N3607, 2N4264, 2SC356, 2SC428, 2SC460, 2SC461, 2SC595, 8C173B, EN744, EN3011, *MPS2926-RED, *PT720, *EGG108, *HEP722, *SK3020, *EN40, *DS-81, *GE-17, *TR-21
2N2712	2N4124, 2N4265, 8C108B, 8C108A, 8C172A, 8C173C, 8C958A, *MPS2926-GRN, *MPS2926-YEL, *GE-20, *DS66, *EN40, *SK3020, *HEP724, *EGG108

TRANSISTOR SUBSTITUTES

2N2713-2N2833

To Replace	Substitute This Type
2N2713	2N744, 2N2318, 2N2319, 2N2331, 2N2656, 2N3011, 2N3606, 2N3606, 2N3607, 2N4264, 25C356, 25C595, EN744, EN3011, MPS2713, PT720, *ECG123A, *HEP54, *SK3020, *EN40, *S0566, *GE-20, *TR-21
2N2714	2N3241A, 2N4124, 2N4265, *GE-17, *EN40, *SK3020, *HEP54, *ECG123A
-2N2715	2N703, 2N744, 2N753, 2N2318, 2N2319, 2N2331, 2N2569, 2N2570, 2N2656, 2N2711, 2N2713, 2N2922, 2N2926-RED, 2N3011, 2N3605, 2N3606, 2N3607, 2N4264, 25C104A, 25C105, 25C396, 25C428, 25C460, 25C461, 25C595, BC170A, BC173B, EN744, EN3011, MP52713, MPS2926-RED, PT720, *ECG108, *HEP722, *SK3020, *EN40, *S0581, *GE-17, *TR-21
-2N2716	2N2712, 2N2714, 2N2924, 2N2925, 2N2926-YEL, 2N3241A, 2N4124, 2N4265, 25C454, 25C458, BC108, BC108A, BC172A, BC173C, BCY58A, MP52714, MPS2926-GRN, MPS2926-YEL, PBC108A, *GE-20, *DS-66, *EN40, *SK3020, *HEP724, *ECG108
2N2726	
2N2727	
2N2728	*ECG105, *SK3012, *GE-4, *AA5, *DS501, *PT501
2N2729	MT1060A, *EN10, *GE-17, *SK3018, *HEP56, *ECG108
2N2730	*ECG105, *SK3012, *GE-4, *PT501, *DS501, *AA5
2N2731	2N2730, *AA5, *DS501, *PT501, *GE-4, *SK3012, *ECG105
2N2732	2N2731, *ECG105, *SK3012, *GE-4, *PT501, *DS501, *AA5
2N2733	
2N2734	2N2733
2N2735	2N2734
2N2736	
2N2737	2N2736
2N2738	2N2737
2N2739	2N2745, 2N2751
2N2740	2N2746, 2N2752
2N2741	2N2742, 2N2747, 2N2748, 2N2753, 2N2754
2N2742	2N2748, 2N2754
2N2745	2N2739, 2N2751
2N2746	2N2740, 2N2752
2N2747	2N2741, 2N2742, 2N2748, 2N2753, 2N2754
2N2748	2N2742, 2N2754
2N2751	2N2739, 2N2745
2N2752	2N2740, 2N2746
2N2753	2N2741, 2N2742, 2N2747, 2N2748, 2N2754
2N2754	2N2742, 2N2748
2N2757	2N2763, 2N2769, 2N2775
2N2758	2N2764, 2N2770, 2N2776
2N2759	2N2760, 2N2765, 2N2766, 2N2771, 2N2772, 2N2777, 2N2778
2N2760	2N2761, 2N2766, 2N2772, 2N2778
2N2761	
2N2763	2N2757, 2N2769, 2N2775
2N2764	2N2758, 2N2770, 2N2776
2N2765	2N2759, 2N2760, 2N2766, 2N2771, 2N2772, 2N2777, 2N2778
2N2766	2N2760, 2N2761, 2N2772, 2N2778
2N2769	2N2757, 2N2763, 2N2775
2N2770	2N2758, 2N2764, 2N2776
2N2771	2N2759, 2N2760, 2N2765, 2N2766, 2N2772, 2N2777, 2N2778
2N2772	2N2760, 2N2761, 2N2766, 2N2778
2N2775	2N2757, 2N2763, 2N2769
2N2776	2N2758, 2N2764, 2N2770
2N2777	2N2759, 2N2760, 2N2765, 2N2766, 2N2771, 2N2772, 2N2777, 2N2778
2N2778	2N2760, 2N2761, 2N2766, 2N2772
2N2781	2N2782, 2N2783
2N2782	2N2781, 2N2783
2N2783	2N2781, 2N2782, *ECG126
2N2784	2N3633, 2N3959, 2N3960, 2N5200, 2N5201, *ECG108, *EN10, *GE-17, *HEP56
-2N2784/46	2N5200, 2N5201
-2N2784/51	2N5200, 2N5201
-2N2786	*ECG160, *HEP2
-2N2786A	*HEP2, *ECG160
-2N2787	2N3735, 2N3737
-2N2788	2N3725A, 2N4961
-2N2789	
-2N2790	2N3737
-2N2791	2N2221A, 2N4963
-2N2792	2N2222A
2N2795	2N2957, *HEP3, *ECG160
2N2796	2N838, 2N2795, *ECG160, *HEP3
-2N2797	2N2957, *HEP2, *ECG160
-2N2798	*ECG160, *HEP2
-2N2799	2N838, 2N1495, 2N1499B, 2N2100, 2N2382, 2N2956, 2N3323, 2N3324, 2N3325, *HEP2, *ECG160
2N2800	2N3245, 2N3763, 2N4030, 2N4032, 2N5022, MM3726, *ECG159, *HEP51
2N2801	*GE-21, *ECG159, *HEP51, *SP70
2N2811	2N4301, HST6011, HST6012, HST9902, HST9903, KSP1152
2N2812	HST6013, HST6014, KSP1155
2N2813	2N4115, HST7150, HST9904, KSP1153
2N2814	2N4115, 2N5329, HST7140, HST7154, KSP1156
2N2815	2N2816, 2N2819, 2N2820, 2N2823, 2N2824, 163-06, 163-08, 164-06, 164-08
2N2816	2N2820, 2N2824, 163-08, 163-10, 163-12, 164-08, 164-10, 164-12
2N2817	2N2818, 2N2821, 2N2822, 2N2825, 163-14, 163-16, 163-18, 164-14, 164-16, 164-18
2N2818	2N2822, 163-18, 163-20, 163-22, 163-24, 164-18, 164-20, 164-22, 164-24
2N2819	2N2820, 2N2823, 2N2824
2N2820	2N2824
2N2821	2N2822, 2N2825
2N2822	
2N2823	2N2824
2N2824	
2N2825	
-2N2826	
-2N2827	
2N2828	
2N2829	
2N2831	*GE-17, *ECG123A, *EN10, *HEP50
2N2832	*HEP626, *ECG121
2N2833	2N2834

Q1 Q2 Q3	To Replace	Substitute This Type
2N2834		
2N2836	2N297A, 2N553, 2N663, 2N665, 2N1011, COT1311, COT1312, *TR-01, *GE-3, *HEP232, *SK3009, *PT40, *DS503	
2N2837	2N4026, 2N5815, 2N5821, D29E04, D29E05, *SP70, *HEP52, *GE-21	
2N2838	2N4028, 2N5817, 2N5819, 2N5823, D29E05, D29E06, D29E10, *GE-21, *HEP52, *SP70	
2N2845	2N915, 2N2221, 2N2221A, 2N2539, 2N3301, 2N4014, 2N4962, 2N4963, 2N5581, FT3641, FT3642, FT3722, *HEP52	
2N2846	2N210, 2N2218A, 2N2537, 2N2846, 2N3015, 2N3259, 2N3326, 2N3676, 2N3722, 2N3725A, 2N4960, 2N4961	
2N2847	2N915, 2N3643, 2N4962, 2N4963, *HEP52	
2N2848	2N4960, 2N4961	
2N2849	2N1973, 2N2849-1, 2N3107, 2N4896, 2N5154, SOT4456, Tn624, Tn624-1, *ECG128	
2N2849-1	2N1973, 2N2849, 2N3107, 2N4896, 2N5154, SOT4456, Tn624, Tn624-1	
2N2849-2	Tn624-2	
2N2849-3	Tn624-3	
2N2850	2N699A, 2N699B, 2N1613B, 2N1889, 2N1974, 2N2102A, 2N2850-1, 2N2851, 2N2851-1, 2N2890, 2N2891, 2N3108, 2N3421, 2N4895, 2N5152, 2SC292, 2SC293, SOT4454, SE7002, *ECG128	
2N2850-1	2N699A, 2N699B, 2N1613B, 2N1889, 2N1974, 2N2102A, 2N2850, 2N2851, 2N2851-1, 2N2890, 2N2891, 2N3108, 2N3421, 2N4895, 2N5152, 2SC292, 2SC293, SOT4454, SE7002	
2N2850-2	2N2851-2	
2N2850-3	2N2851-3	
2N2851	2N699A, 2N699B, 2N1613B, 2N1889, 2N1974, 2N2102A, 2N2850, 2N2850-1, 2N2851-1, 2N2890, 2N2891, 2N3108, 2N3421, 2N4895, 2N5152, 2SC292, 2SC293, SOT4454, SE7002, *ECG128	
2N2851-1	2N699A, 2N699B, 2N1613B, 2N1889, 2N1974, 2N2102A, 2N2850, 2N2851, 2N2851-1, 2N2890, 2N2891, 2N3108, 2N3421, 2N4895, 2N5152, 2SC292, 2SC293, SOT4454, SE7002	
2N2851-2	2N2850-2	
2N2851-3	2N2850-3	
2N2852	2N698, 2N1975, 2N2852-1, 2N3419, SOT4452, *ECG128	
2N2852-1	2N698, 2N1975, 2N2852, 2N3419, SOT4452	
2N2852-2		
2N2852-3		
2N2853	2N2848, 2N2853-1, 2A2854, 2N2854-1, 2N3109, 2N3420, 2N3506, 2N4960, 2N4961, SOT9008, *ECG128, *HEP243	
2N2853-1	2N2848, 2N2853, 2N2854, 2N2854-1, 2N3109, 2N3420, 2N3506, 2N4960, 2N4961, SOT9008	
2N2853-2	2N2854-2	
2N2853-3	2N2854-3	
2N2854	2N2848, 2N2854-1, 2N3109, 2N3506, 2N4960, 2N4961, SOT4455, SOT9011, *ECG128	
2N2854-1	2N2848, 2N2854, 2N3109, 2N3506, 2N4960, 2N4961, SOT4455, SOT9011	
2N2854-2		
2N2854-3		
2N2855	2N1613A, 2N2853, 2N2853-1, 2N2855-1, 2N3015, 2N3110, 2N3299, 2N3326, 2N3420, 2N3507, SOT4453, SOT9005, SE8002, *ECG128, *HEP243	
2N2855-1	2N1613A, 2N2853, 2N2853-1, 2N2855, 2N3015, 2N3110, 2N3299, 2N3326, 2N3420, 2N3507, SOT4453, SOT9005, SE8002	
2N2855-2	2N2853-2	
2N2855-3	2N2853-3	
2N2856	2N2856-1, 2N3418, 2N5188, 2SC291, SOT4451, SOT4463, SOT9002, SE8001, *HEP243, *ECG128	
2N2856-1	2N2856, 2N3418, 2N5188, 2SC291, SOT4451, SOT4463, SOT9002, SE8001	
2N2856-2		
2N2856-3		
2N2857	*ECG108, *EN10, *GE-17	
2N2858	2N2859	
2N2859	2N2911	
2N2861	2N727, 2N869A, 2N2612, 2N3040, 2N3825, 2N3905, 2N4402, 2N4403, 2N5041, 8S5W72, 8M3905, TQ62, *HEP52, *ECG159, *TR-19, *GE-21, *SP70	
2N2862	2N869, 2N869A, 2N2611, 2N2861, 2N3829, 2N5041, 8S5W72, *TR-19, *ECG159, *HEP52	
-2N2863	*GE-21, *SN60	
-2N2864		
2N2865	2N3572, 2N4252, *EN10, *DS-74, *GE-17, *HEP56, *SK3019, *ECG161, *AF4	
2N2866		
2N2867	2N4115	
2N2868	2N2193, 2N2193A, 2N2193B, 2N2270, 2N3109	
2N2869	2N2869/2N301, 2N2870, 2N2870/2N301A, 2S8471, 2S8472, KR6501, *AA4, *ECG121, *HEP232, *GE-3, *DS-503, *PT40	
2N2869/2N301	2N2869, 2N2870, 2N2870/2N301A, 2S8471, 2S8472, KR6501, *DS503, *GE-3, *HEP232, *SK3009, *ECG121	
2N2870	2N2870/2N301A, 2S8472, KR6503, *ECG121, *HEP232, *GE-16, *PT40, *AA4	
2N2870/2N301A	2N2870, 2S8472, KR6503, *DS503, *GE-3, *HEP232, *SK3009	
2N2874	2N17C9	
2N2875		
2N2876	2N3733, 2N4440, 8SA7505, 8SA8505	
2N2877	2N2879, 8ST6309, 8ST6310, 8ST6409, 8ST6410, SOT6309, SOT6310, STT2804, STT2805, STT6309, STT6310, STT6409, STT6410	
2N2878	2N2880, 8ST6312, 8ST6313, 8ST6412, 8ST6413, SOT6312, SOT6313	
2N2879	2N4115, 8ST6310, 8ST6409, 8ST6410, SOT6310, SOT2803, STT2804, STT6310, STT6410	
2N2880	2N4115, 8ST6313, 8ST6413, SOT6313	
2N2881	2N3203, 2N3204	
2N2882		
-2N2883	8SX48, 8SX49, *ECG108, *GE-17, *EN10	
-2N2884	8SX48, 8SX49, *EN10, *GE-17, *ECG108	
2N2886	2N2107, 2N3122, 2N3295, 2N5188, 2SC31, 2SC116, 2SC152, *TR-25	
2N2887	2N3229	
2N2890	2N699A, 2N699B, 2N1613B, 2N1889, 2N1974, 2N2102A, 2N2891, 2N3107, 2N4924, 2SC49, 2SC353, 2SC470-4, 2SC590, 8M3008, SE7002	
2N2891	2N699A, 2N699B, 2N1613B, 2N1889, 2N3107, 2N4924, 2SC353	
2N2892	2N2893, 2N4115, 8ST6313, 8ST6413	
2N2893	2N4115, 8ST6313, 8ST6413	
2N2894	2N3959, 2N3960, *GE-21, *ECG159, *SP70, *HEP52	
2N2894A	2N3546, 2N4208, 2N4209, 2N5057, 2N5292, *HEP57, *ECG159	
2N2895	2N740A, 2N2896, 2N2899	
2N2896	2N2899, 2N3700	
2N2897	4045B	
2N2898	2N2899	
2N2899		
2N2900		
-2N2902	2N1050A	

Q's to Replace	Substitute This Type
2N3011 (CONT)	2SC639, 2SC764, GET 2369, GET 3013, GET 3014, GET 3E46, *ECG108, *HEP56, *GE-21, *TR-21, *SN60
2N3012	2N2894A, 2N3546, *SP70, *GE-21, *HEP52, *ECG159
2N3013	2N916, 2N916A, 2N2501, 2N3014, 2N5144, 2SC67, 2SC68, 2SC639, 2SC764, *ECG123A, *HEP56, *GE-20, *SN80
2N3014	2N916, 2N916A, 2N2501, 2N3013, 2N5144, 2SC67, 2SC68, 2SC639, 2SC764, *SN80, *GE-20, *HEP56, *ECG123A
2N3015	2N2848, 2N3299, 2N4960, 2N4961, *ECG123, *GE-17, *EN10
2N3016	
2N3017	
2N3018	
2N3019	
2N3020	
2N3021	2N3022, *TR-29
2N3022	2N3023, *TR-29
2N3023	*TR-29
2N3024	2N3025
2N3025	2N3026
2N3026	
2N3033	
-2N3034	
-2N3035	*TR-25, *GE-17, *EN10, *D581, *ECG108
2N3036	
2N3037	2N2519, 2N2899
2N3038	2N2462, 2N3057
2N3039	*TR-28
2N3040	2N3486, 2N3486A, 2N3673
2N3053	*GE-18, *ECG128, *HEP243, *SK3024
2N3054	2N3878, *HEP703, *ECG152, *PN26
2N3055	2N3236, 2N5039, 2N5629, 2N5630, 108T2, 40636, HST9202, HST9203, SOT9704, SOT9705, *PN350, *ECG130, *HEP704, *SK3027, *GE-14
2N3056	2N2460, 2N2898
2N3056A	2N2899
2N3057	2N2462
2N3057A	
2N3058	2N2944, 2N2944A, 2N3059, *GE-21, *HEP52, *ECG159, *SP70
2N3059	2N2944, 2N2944A, *ECG159, *HEP52
2N3060	2N3063, 2N4982, *HEP52, *ECG159, *TR-28
2N3061	2N3063
2N3062	2N3063, 2N3065, *ECG159, *HEP52
2N3063	
2N3064	
2N3065	
2N3072	2SA544, 2SA552, *HEP52, *ECG159
2N3073	2N3250A, 2N3496, GET 2904, GET 2905, *ECG159, *HEP52
-2N3074	*HEP3, *SK3006, *ECG160, *TR-05, *GE-9, *HF75
-2N3075	*HF75, *D541, *GE-9, *TR-05, *ECG100, *SK3006, *HEP253
2N3076	
2N3077	2N7368, 2N871, 2N910, 2N956, 2N2461, 2N2462, 2N2465, 2N2466, 2N2516, 2N2645, 2N3038, *HEP713, *SK302C, *ECG128, *GE-18
2N3078	2N2389, 2N2459, 2N2463, *GE-18, *TR-25, *ECG128, *SK3020, *HEP713
2N3079	
2N3080	
2N3081	*HEP51, *ECG159, *GE-21, *SP70
2N3107	2N1973
2N3108	2N6998, 2N1613B, 2N1889, 2N1974, 2N2102A
2N3109	2N1973, 2N3107
2N3110	2N1613A, 2N1889, 2N1974, 2N3108, *TR-25
2N3114	2N1893A, 2N3500, 2N3712, 2N4925, MM2259, MM2260, MM3009, SE7001, *ECG154, *HEP714
2N3115	2N2221, 2N2221A, 2N2539, 2N4962, 2N4963, 2N5581, FT3641, FT3642, FT3722, *HEP53, *ECG123A, *GE-17, *EN10
2N3116	2N2222, 2N2222A, 2N2540, FT3643, *EN10, *GE-17, *ECG123A, *HEP53
2N3117	*HEP55, *SK3020, *ECG128, *GE-18
2N3118	2N1506, 2N1506A, 2N1709, 2N2874, 2N3866, 403C5, 40577
2N3119	
2N3120	2N3072, 2SA544, 2SA552, *ECG129
2N3121	2N3073, 2N3250, 2N3250A, 2N5448, GE T2904, GET 2905, *ECG159, *HEP51
2N3122	2N656, 2N1613A, 2N2951, 2N3015, 2N3295, 2N3326, 2SC32, 2SC110, 2SC152, 2SC594, *HEP53, *ECG123A, *TR-25
2N3123	
2N3127	*ECG160, *TR-17
2N3133	2N2904, 2N2904A, 2SA537, MM3726, *HEP51, *SP70, *GE-21, *ECG129
2N3134	2N2905, 2N2905A, 2N3503, *ECG129, *GE-21, *SP70, *HEP51
2N3135	2N2906, 2N2906A, *HEP51, *SP70, *GE-21, *ECG159
2N3136	2N2907, 2N2907A, 2N3505, FT3644, *ECG159, *GE-21, *SP70, *HEP51
2N3137	2N3326, 2SC651, *HEP56, *SN60, *GE-21, *ECG107
2N3139	
2N3140	
2N3141	
2N3142	
2N3143	
2N3144	
2N3145	
2N3146	
2N3147	
2N3149	2N3150
2N3150	
2N3151	
2N3153	*HEP3, *TR-06, *ECG160
2N3154	2N3155
2N3155	2N3156
2N3156	2N3157
2N3157	
2N3158	2N3159
2N3159	2N3160
2N3160	2N3161
2N3161	

TRANSISTOR SUBSTITUTES

2N3163-2N3283

To Replace	Substitute This Type
2N3163	2N3164, 2N3175, 2N3176, 2N3187, 2N3188, *HEP248
2N3164	2N3165, 2N3176, 2N3177, 2N3188, 2N3189
2N3165	2N3166, 2N3177, 2N3178, 2N3189, 2N3190
2N3166	2N3178, 2N3190
2N3167	2N3168, 2N3179, 2N3180, 2N3191, 2N3192
2N3168	2N3169, 2N3180, 2N3181, 2N3192, 2N3193
2N3169	2N3170, 2N3181, 2N3182, 2N3193, 2N3194
2N3170	2N3182, 2N3194
2N3171	2N3172, 2N3183, 2N3184, 2N3195, 2N3196, *HEP248
2N3172	2N3173, 2N3184, 2N3185, 2N3196, 2N3197, *HEP248
2N3173	2N3174, 2N3185, 2N3186, 2N3197, 2N3198
2N3174	2N3186, 2N3198
2N3175	2N3176, 2N3187, 2N3188
2N3176	2N3177, 2N3188, 2N3189
2N3177	2N3178, 2N3189, 2N3190
2N3178	2N3190
2N3179	2N3180, 2N3191, 2N3192
2N3180	2N3181, 2N3192, 2N3193
2N3181	2N3182, 2N3193, 2N3194
2N3182	2N3194
2N3183	2N3184, 2N3195, 2N3196, *HEP248
2N3184	2N3185, 2N3196, 2N3197, *HEP248
2N3185	2N3186, 2N3197, 2N3198
2N3186	2N3198
2N3187	2N3175, 2N3176, 2N3188
2N3188	2N3176, 2N3177, 2N3189
2N3189	2N3177, 2N3178, 2N3190
2N3190	2N3178
2N3191	2N3179, 2N3180, 2N3192
2N3192	2N3180, 2N3181, 2N3193
2N3193	2N3181, 2N3182, 2N3194
2N3194	2N3182
2N3195	2N3183, 2N3184, 2N3196, *HEP248
2N3196	2N3184, 2N3185, 2N3197, *HEP248
2N3197	2N3185, 2N3186, 2N3198
2N3198	2N3186
2N3199	2N3200, 2N3205, 2N3206
2N3200	2N3201, 2N3206
2N3201	2N3207
2N3202	2N2881, 2N3203, 2N3208, *HEP242, *ECG129
2N3203	2N2881, 2N3204, *ECG129, *HEP242
2N3204	2N2882
2N3205	2N3199, 2N3200, 2N3206
2N3206	2N3200, 2N3201
2N3207	
2N3208	2N2881, 2N3202, 2N3203, *HEP242, *ECG129
2N3209	2N869A, 2N3576, *ECG106, *TR-19, *GE-21, *SP70
2N3210	2N444, 2N2501, 2N3013, 2N3014, 25C67, 25C69, 25C76, GET2369, GET3013, GET3014, GET3646, MM2483, *ECG123A, *HEP53
2N3211	*HEP53, *ECG123A, *TR-22
2N3212	*GE-25, *ECG121, *SK3009, *DS-503
2N3213	*DS-503, *SK3009, *ECG121, *GE-16
2N3214	*GE-16, *ECG121, *SK3009, *DS-503
2N3215	*DS-503, *SK3009, *ECG121, *GE-16
2N3217	2N2945, 2N3218, 2N3977, 2N3978, *HEP52, *ECG159, *TR-19, *GE-21, *SP70
2N3218	2N2945, 2N2946, 2N2946A, 2N3978, *SP70, *GE-21, *TR-19, *ECG159, *HEP52
2N3219	2N3979, *HEP52, *ECG159, *TR-28, *GE-21, *SP70
2N3224	
2N3225	
2N3226	2N4913, 2N5034, 2N5067, 40542, B170001-BLK, B170001-BRN, B170010, B170019, HST9201, HST9205, M5A, M10A, *HN100, *GE-19, *ECG130, *HEP247
2N3227	*ECG108
2N3229	
2N3232	2N3235, 2N3445, 156-084, HST9201, HST5205, HST9206, *HEP247, *ECG130, *GE-14
2N3233	2N3230, 2N3446, 2N5632, 2N5633, 156-104, 156-124, HST9202, HST9203, HST9207, HST9209
2N3234	156-164
2N3235	HST9201, *HEP704
2N3236	2N5039, 2N5629, 2N5630, 108T2
2N3237	
2N3238	2N3239
2N3239	2N3238
2N3240	
2N3241A	2N3242A, *DS-66, *SN80, *ECG123A, *GE-20, *SK3020, *HEP53
2N3242A	*DS-66, *ECG123A, *GE-20, *SK3020, *HEP53
2N3244	
2N3245	2N3763, 2N5022, MM3726, *GE-21, *ECG106, *SP70
2N3248	2N869A, 2N3545, 2N3576, *ECG159, *HEP52
2N3249	*HEP52, *ECG159
2N3250	2N3250A, *ECG159, *HEP52, *GE-21, *SP70
2N3250A	*HEP52, *ECG159
2N3251	2N3251A, *ECG159, *HEP52, *SP70, *GE-21
2N3251A	*HEP52, *ECG159
2N3252	2N5262
2N3253	2N5262
2N3261	2N3510, 2N3511, 2N3647, 2N3648, *ECG123A, *HEP53
2N3262	
2N3263	
2N3264	2N3263
2N3265	
2N3266	2N3265
2N3268	*DS-66, *GE-20, *ECG123, *HEP53, *SK3020
2N3279	2N3280, *HEP3, *ECG160, *TR-17
2N3280	2N3279, *TR-17, *ECG160, *HEP3
2N3281	2N3282, *HEP3, *ECG160, *TR-17
2N3282	2N3281, *TR-17, *ECG160, *HEP3
2N3283	2N3127, 2N3279, 2N3280, 2N3284, *HEP3, *ECG160, *TR-17

Q1 Q1	To Replace	Substitute This Type
2N3284	2N3127, 2N3279, 2N3280, 2N3283, *TR-17, *ECG160, *HEP3	
2N3285	2N3286, *HEP3, *ECG160, *TR-17	
2N3286	2N3285, *TR-17, *ECG160, *HEP3	
2N3287	2N3288, 2N3337, 2N3338, 2N3339, *HEP56, *SK3018, *ECG161, *GE-20	
2N3288	2N3287, 2N3337, 2N3338, 2N3339, *GE-20, *ECG161, *SK3018, *HEP56	
2N3289	2N917, 2N918, *2N3287, 2N3288, 2N3290, 2N3337, 2N3338, 2N3339, 2N3570, 2N4253, MT1061, *HEP56, *SK3019, *ECG161, *GE-17, *TR-21, *DS74, *EN10, *AF4, *EN10, *DS74, *TR-21, *GE-17, *ECG161, *SK3019, *HEP56	
2N3290	*EN10, *DS74, *TR-21, *GE-17, *ECG161, *SK3019, *HEP56	
2N3291	2N3292, *HEP56, *SK3019, *ECG161, *GE-17, *TR-22, *DS74, *EN10, *AF4	
2N3292	2N3291, *AF4, *EN10, *DS74, *TR-22, *GE-17, *ECG161, *SK3019, *HEP56	
2N3293	2N3291, 2N3292, 2N3294, *HEP56, *SK3019, *ECG161, *GE-17, *TR-22, *DS74, *EN10, *AF4	
2N3294	2N3291, 2N3292, 2N3293, *AF4, *EN10, *DS74, *TR-22, *GE-17, *ECG161, *SK3019, *HEP56	
2N3295	2N2217, 2N2951, 2N5188, 85X49	
2N3296	2N2950	
2N3297	2N2947, *GE-19, *TR-26, *HN100	
2N3298	2N3241A, 2N4873, 2N5224, 2SC68, 2SC639, 2SC764, BC173C, MP56513, MPS110, MP5111, *TR-24	
2N3299	2N2848, 2N3015, 2N4960, 2N4961	
2N3300	BCY65	
2N3301	2N915, 2N2847, 2N3946, 2N4962, 2N4963, MM3903, *HEPT36, *ECG123A	
2N3302	FT3643, MM2484, *ECG123A, *HEP736	
2N3303	2N3137, 2N5065	
2N3304	2N2894, 2N3012, 2N3546, 2N4207, 2N4208, 2N4209, 2N4872, 2N5056, 2N5057, 2N5292, *MP33640, *N5170, *MPS108, *ECG106, *GE-21, *SP70 *SP70, *GE-21, *ECG159, *HEP52, *SK3020	
2N3307	*SP70, *GE-21, *ECG159, *HEP52, *SK3020	
2N3308	2N3307, *SK3020, *HEP52, *ECG159, *GE-21, *SP70	
-2N3309	85X48, 85X49	
2N3311	2N3312, 2N3314, 2N3315, *HEP231, *SK3012, *ECG105, *DS501, *GE-4	
2N3312	2N3313, 2N3315, *GE-4, *DS501, *ECG105, *HEP231	
2N3313	*HEP231, *SK3012, *ECG105, *DS501, *GE-4	
2N3314	2N3315, *GE-4, *DS501, *ECG105, *SK3012, *HEP231	
2N3315	*HEP231, *SK3012, *ECG105, *DS501, *GE-4	
2N3316		
2N3317	*GE-21, *TR-19, *DS-56, *SP70, *ECG159, *HEP52	
2N3318	*HEP52, *ECG159, *SP70, *DS56, *TR-19, *GE-21	
2N3319	*GE-21, *TR-19, *DS56, *SP70, *ECG159, *HEP52	
2N3320	*HEP3, *ECG160	
2N3321	*ECG160, *HEP3	
2N3322	2N3320, *HEP3, *ECG160	
2N3323	2N2957, 2N3324, 2N3325, *ECG160, *HEP3	
2N3324	2N2957, 2N3323, 2N3325, *HEP636, *ECG160	
2N3325	2N2957, 2N3323, 2N3324, *ECG160, *HEP3	
2N3326		
2N3337	2N3338, 2N3339, *TR-25	
2N3338	2N3337, 2N3339, *TR-25, *HEP56, *ECG161	
2N3339	2N3337, 2N3338, *ECG161, *HEP56, *TR-25	
2N3340	*TR-22, *HEP50, *ECG123A	
2N3341	2N2394, 2N3581, *ECG159, *HEP50, *TR-19, *GE-21, *SP70	
2N3342	2N1917, 2N1918, 2N2945, 2N4284, 2N4285, 2N5230, *SP70, *GE-21, *TR-19, *HEP51, *ECG106	
2N3343	2N1026, 2N1219, 2N1231, 2N1469, 2N1917, 2N1918, 2N3344, 2N4008, *ECG129, *HEP51, *TR-19, *GE-21, *SP70	
2N3344	2N1026, 2N1231, 2N1469, 2N3346, 2N4008, *SP70, *GE-21, *TR-19, *HEP51, *ECG129	
2N3345	2N1232, 2N1474A, 2N3346, *ECG129, *HEP51, *TR-28, *GE-21, *SP70	
2N3346	2N1233, *SP70, *GE-21, *TR-28, *HEP51, *ECG159	
2N3371	2N7957, *ECG160, *HEP3	
2N3375	40666	
2N3388	2N3923, 2SC686, *ECG154	
2N3389	2SC154C, SE7055, *ECG154	
2N3390	BC108C, BC109B, BC172C, *ECG123A, *GE-20, *HEP730, *SK3020, *EN40	
2N3391	2N3351A, 2N6002, 2N6008, BC109, BC169, BC172C, BCY58D, SE4002, SE4010, *EN40, *DS-66, *SK3020, *HEP726, *GE-20, *ECG123A	
2N3391A	2N3391, 2N6002, 2N6008, BC109, BC169, BC172C, BCY58D, SE4002, SE4010, *ECG123A, *GE-20, *HEP726, *SK3020, *DS-66, *EN40	
2N3392	2N3391, 2N3391A, 2N3794, 2N6002, 2N6008, 2SC368, 2SC369, BC108, BC108B, BC109C, BC168, BC172B, BCY58A, BCY58B, BCY58C, GI-3794, *MPS5172, *EN40, *DS-66, *SK3020, *HEP724, *GE-20, *ECG123A	
2N3393	2N2924, 2N2925, 2N3227, 2N3241A, 2N3242A, 2N3392, 2K4124, 2N4256, 2N4265, 2N4954, 2N5172, 2N5224, 2N5371, 2N6000, 2SC367, 2SC454, 2SC458, BC108A, BC172A, BC173C, BCY58A, 85X83, *MP5370B, *MPS5172, SE4001, *ECG123, *GE-20, *HEP723, *SK3020, *DS-66, *EN40	
2N3394	2N3337, 2N3501, 2N2923, 2N3392, 2SC68, 2SC69, *EN40, 2SC459, 2SC460, 2SC461, 2SC462, 2SC639, 2SC764, B5V61, SE4001, *EN40, *DS-66, *SK3020, *HEP723, *GE-20, *TR-24, *ECG123A	
2N3395-WHT	2N3390, 2N3391, 2N3391A, 2N6002, 2N6008, BC109, BC169, BC172C, BCY58D, PET4003, SE4002, SE4010, *HEP726	
2N3395-YEL	2N3391, 2N3391A, 2N3392, 2N3395-WHT, 2N3415, 2N3565, 2N3794, 2N4286, 2N6002, 2N6005, 2N6008, 2SC368, 2SC369, *40397, BC108, BC108B, BC109C, SE4002, BC172B, BCY58A, BCY58B, BCY58C, GI-3415, GI-3794, *MPS3392, *MPS3395, *MPS5172, PET4002, *HEP726	
2N3396-ORG	2N3392, 2N3925, 2N3227, 2N3392, 2N3393, 2N3395-YEL, 2N3396-YEL, 2N3397-ORG, 2N3397-YEL, BC108B, BC109C, BC168, BC172B, BCY58A, 9CY58B, BCY58C, GI-3415, GI-3794, *MPS3392, *MPS3395, 2N6000, 2SC367, 2SC454, 2SC458, 40398, BC108A, BC172A, BC173C, BCY58A, *MPS3393, *MPS3706, *MPS5172, PET4001, SE4001, *HEP724	
2N3396-WHT	2N3390, 2N3391, 2N3391A, 2N3395-WHT, 2N3397-WHT, 2N3398-BLU, 2N3398-WHT, 2N6002, 2N6008, BC109, BC169, BC172C, BCY58D, PET4003, SE4002, SE4010, *HEP724	
2N3396-YEL	2N3391, 2N3391A, 2N3392, 2N3395-WHT, 2N3395-YEL, 2N3396-WHT, 2N3397-WHT, 2N3397-YEL, 2N3398-WHT, 2N3415, 2N3565, 2N3794, 2N4286, 2N6002, 2N6008, 2SC368, 2SC369, 40397, BC108, BC108B, BC109C, BC168, BC172B, BCY58A, 9CY58B, BCY58C, GI-3415, GI-3794, *MPS3392, *MPS3395, *MPS5172, PET4002, *HEP724	
2N3397-ORG	2N2924, 2N2925, 2N3227, 2N3392, 2N3393, 2N3395-YEL, 2N3396-ORG, 2N3396-YEL, 2N3397-YEL, 2N3398-ORG, 2N3414, 2N3509, 2N4074, 2N4124, 2N4256, 2N4265, 2N4954, 2N5172, 2N5224, 2N5371, 2N6000, 2SC367, 2SC454, 2SC458, 40398, BC108A, BC172A, BC173C, BCY58A, *MPS3393, *MPS3706, *MPS5172, PET4001, SE4001, *HEP723	
2N3397-RED	2N5201, 2N2923, 2N3393, 2N3394, 2N3396-ORG, 2N3397-CRG, 2N3398-ORG, 2N3398-RED, 2N4138, 2SC68, 2SC69, 2SC460, 2SC659, 2SC461, 2SC462, 2SC639, 2SC676, B5V61, GI-3414, *MPS3399, PET4001, SE4001, *HEP723, *TR-24	
2N3397-WHT	2N3390, 2N3391, 2N3391A, 2N3395-WHT, 2N3396-WHT, 2N3398-BLU, 2N3398-WHT, 2N6002, 2N6008, BC109, BC169, BC172C, BCY58D, PET4003, SE4002, SE4010, *HEP723	
2N3397-YEL	2N3391, 2N3391A, 2N3392, 2N3395-WHT, 2N3395-YEL, 2N3396-WHT, 2N3396-YEL, 2N3397-WHT, 2N3397-YEL, 2N3398-WHT,	

TRANSISTOR SUBSTITUTES

2N398-BLU—2N3543

To Replace	Substitute This Type
2N3397-YEL (CONT)	2N3398-WHT, 2N3415, 2N3565, 2N3794, 2N4286, 2N6002, 2N6008, 2SC368, 2SC369, 40397, BC108, BC108B, BC109C, BC168, BC172B, BCY58A, BCY58B, BCY58C, GI-3415, GI-3794, MPS3392, MPS3395, MPS5172, PET4002, *HEP723
2N3398-BLU	2N3390, BC108C, BC109B, BC172C, *HEP726
2N3398-DRG	2N2924, 2N2925, 2N3227, 2N3392, 2N3393, 2N3395-YEL, 2N3396-DRG, 2N3396-YEL, 2N3397-DRG, 2N3397-YEL, 2N3414, 2N3509, 2N4074, 2N4124, 2N4256, 2N4265, 2N4954, 2N5172, 2N5224, 2N5271, 2N6000, 2SC367, 2SC454, 2SC458, 40398, BC108A, BC172A, BC173C, BCY58A, MPS3393, MPS3706, *MPS5172, PET4001, SE4001, *HEP726
2N3398-RED	2N2501, 2N2923, 2N3393, 2N3394, 2N3396-DRG, 2N3397-DRG, 2N3397-RED, 2N3398-DRG, 2N4138, 2SC68, 2SC323, 2SC400, 2SC459, 2SC460, 2SC461, 2SC468, 2SC639, 2SC764, 85Y61, GI-3414, MPS3394, PET4001, SE4001, *HEP726, *TR-24
2N3398-WHT	2N3390, 2N3391, 2N3391A, 2N3395-WHT, 2N3396-WHT, 2N3397-WHT, 2N3398-BLU, 2N6002, 2N6008, 8C109, BC169, BC172C, BCY58D, PET4003, SE4002, SE4010, *HEP726
2N3399	2N3127, 2N3281, 2N3282, AFY37, AFY42, MM5000, MM5001, MM5002, *HEP3, *TR-17, *ECG610
2N3401	2N924, 2N1026, 2N1231, 2N1469, 2N3219, 2N3979, 2N4008, SHA7537, *HEP51, *TR-19, *EG-21, *ECG159, *SP70
2N3402	*SN80, *DS-66, *ECG123A, *GE-18, *HEP54, *SK3020
2N3403	*SK3020, *HEP54, *GE-20, *ECG123A, *SN80
2N3404	D33025J1, D33026J1, D33030J1, *EN30, *DS-66, *ECG123A, *GE-10, *HEP54, *SK3020
2N3405	D33027J1, *SK3020, *HEP54, *GE-10, *ECG123A, *EN30
2N3412	2N982, 2N1499B, 2N2795, 2N3323, 2N3324, 2N3325, *HEP2, *ECG160
2N3414	2N3227, 2N3241A, 2N3242A, 2N3509, 2N4954, 2N5371, 2N5451, 2N6000, BSW83, GI-3706, PET3706, TN60, TN80, *ECG123A, *HEP50, *SK3020, *GE-20, *SN80
2N3415	2N6002, 2N6008, *EN30, *GE-10, *SK3020, *HEP721, *ECG123A
2N3416	2N760A, 2N760B, 2N909, 2N956, 2N2222, 2N2222A, 2N2350, 2N2350A, 2N2484A, 2N2522, 2N2524, 2N2540, 2N2645, 2N3116, 2N3302, 2N3704, 2N4952, 2N5107, 2N5369, 2N5377, 2N5449, 2N5982, 2N5816, 2N5818, 2N5822, 2N6004, 2N6010, 2N6014, 40458, BSW85, D33030, GI-3643, GI-3704, PET3704, *ECG123A, *HEP736, *SK3020, *GE-17, *EN10
2N3417	2N6006, 2N6012, 2N6016, *EN10, *GE-17, *SK3020, *HEP735, *ECG123A
2N3418	
2N3419	
2N3420	
2N3421	
2N3426	2N5065
2N3427	2N3428, *ECG102, *HEP630
2N3428	PA1702, *HEP630, *ECG102
2N3429	
2N3430	
2N3431	2N3432
2N3432	2N3433
2N3433	153-30
2N3439	
2N3440	*ECG124, *HEP240
2N3441	*HEP241
2N3442	156-164, 1723-2005
2N3446	2N3253
2N3445	2N3446, HST9202, HST9206, HST9207, *GE-14, *ECG130, *HEP247, *SK3027
2N3446	HST9202, HST9203, HST9207, HST9208, *SK3027, *ECG130, *GE-14
2N3447	2N3448, *GE-14, *ECG130, *SK3027, *HEP247
2N3448	*SK3027, *ECG130, *GE-14
2N3461	*HEP238
2N3467	2N3724A
2N3468	2N3252, 2N3253, 2N3734, 2N3736, 2N5262, MM3725
2N3469	*ECG128, *HEP243
2N3470	2N3474
2N3471	2N3475
2N3472	2N3473, 2N3476, 2N3477
2N3473	2N3477
2N3474	
2N3475	
2N3476	2N3477
2N3477	
2N3478	2N3600, 2N3932, 2N3933, 2SC567, 2SC568, 40294, 40295, 40413, 4A90, MT1061A, *HEP56, *SK3019, *ECG161, *GE-17, *EN10, *DS-74, *AF4
2N3485	2N3485A, *HEP51, *SP70, *GE-21, *ECG159
2N3485A	2N3485, *ECG159, *HEP51
2N3486	2N3486A, *HEP51, *ECG159, *GE-21, *SP70
2N3486A	2N3486, *ECG159, *HEP51
2N3487	
2N3488	2N3492
2N3489	
2N3490	2N3491
2N3491	
2N3492	
2N3493	*HEP56, *ECG108, *TR-21
2N3494	*ECG129, *HEP710
2N3495	
2N3496	BSW74, *HEP52, *ECG159
2N3497	
2N3498	*ECG123, *GE-20, *SN80
2N3499	
2N3500	
2N3501	
2N3502	2N3503, *ECG129, *HEP51
2N3503	2N4405, *HEP51, *ECG129
2N3504	2N2907, 2N2907A, 2N3505, 2N3672, FT3644, FT3645, *ECG159, *HEP708
2N3505	2N2907, 2N2907A, 2N3672, FT3644, *HEP51, *ECG159
2N3504	SDT4455, SDT9011, *ECG128
2N3507	2N1613A, 2N4311, 2N5154, SDT4453, SDT4454, SDT9009, *ECG128
2N3508	2N2523, 2N2900, 2N3647, *ECG108, *HEP56
2N3509	*HEP56, *SK3020, *ECG108, *GE-20
2N3510	2N2501, 2N3511, 2N3647, 2N3648, 2N4013, 2N5144, *ECG123A, *HEP50
2N3511	*HEP56, *ECG108
2N3512	
2N3527	2N4980, *ECG159, *HEP52, *SK3019, *GE-17, *TR-19, *EN10, *DS-74, *AF4
2N3543	

O 1 51	To Replace	Substitute This Type
2N3544	2N7444, 2N2369, 2N2369A, 2N2615, 2N2710, 2N4137, 2N5029, 2SC601, 2SC601N, 2SC689, MM194.1, MP52369, *MPS507, *HEP56, *ECG108	
2N3545	2N869A, 2N3576, *ECG159, *HEP52, *TR-19	
2N3546	2N4209, 2N5056, 2N5057, *HEP57, *ECG159	
2N3547	2N3548, *ECG159, *HEP52	
2N3548	2N3549, 2N3550, *HEP52, *ECG159	
2N3549	2N3550, *ECG159, *HEP52	
2N3550	2N3549, *HEP52, *ECG159	
2N3551	2N3552	
2N3552		
2N3553	40605	
2N3554	2N3015, 2N3299, 2N3326, 2N5262	
2N3563	2N2369A, 2N2615, 2N3862, 2N4295, 2N4418, 2N4996, 2N5029, 2SC601N, 2SC639, 2SC764, MP53563, MP5H10, MP5H11, MT1060A, SE3005, *ECG107, *HEP720, *GE-11, *AF4, *DS-74, *EN10	
2N3564	2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3688, 2N3689, 2N3690, 2N3862, 2N4295, 2N4418, 2N4996, 2N5029, 2SC67, 2SC601N, 2SC639, 2SC764, GET2369, MT1060A, SE3005, SE5001, SE5002, SE5003, SE5006, *ECG107, *SK3018, *HEP720, *GE-17, *TR-21, *DS-74, *EN10, *AF4	
2N3565	2N4286, 2N4287, PET4002, SE4002, SE4010, *SN80, *DS-81, *GE-10, *HEP55, *SK3020, *ECG123A	
2N3566	2N2586, 2N3117, 2SC587, 2SC587A, AL57B, BC107B, BC171B, BC759C, GI-3566, TI597, *ECG123A, *SK3020, *HEP55, *GE-20, *DS-66, *SN80	
2N3567	2N718A, 2N735, 2N736, 2N870, 2N911, 2N1837, 2N2221A, 2N2317, 2N2351, 2N2351A, 2N2380, 2N2380A, 2N2390, 2N2460, 2N2466, 2N3056, 2N3568, 2N4014, 2N4963, 2N5581, BSW84, *EN1613, *EN1711, FT3567, FT3568, FT3722, SE8012, TN54, *SN80, *DS-66, *GE-20, *HEP736, *SK3024, *ECG128	
2N3568	2N718A, 2N735, 2N736, 2N870, 2N911, 2N1837, 2N2221A, 2N2317, 2N2351, 2N2351A, 2N2380, 2N2380A, 2N2390, 2N2460, 2N2466, 2N3056, 2N3567, 2N4014, 2N4963, 2N5581, BSW84, *EN1613, *EN1711, FT3567, FT3568, FT3722, SE8012, TN54, *ECG128, *SK3020, *HEP736, *GE-20, *DS-66, *SN80	
2N3569	2N2222A, 2N2462, 2N2466, 2N3057, 2N5582, BSW85, SE6021, SE6021A, *SN80, *DS-66, *GE-10, *HEP736, *SK3020, *ECG128	
2N3570	MT1061A, *SK3018	
2N3571	2N3570, 2N3572, MT1061A, *SK3018, *ECG108	
2N3572	2N3600, *ECG108, *SK3018	
2N3576	2N869A, 2N3829, *HEP52, *ECG106, *GE-20, *TR-19, *SN60	
2N3579	2N2591, *TR-28, *ECG159, *ECG159, *HEP52	
2N3580	2N2592, 2N2593, *HEP52, *ECG159	
2N3581	*ECG159, *HEP52, *GE-21, *SP70	
2N3582	*SP70, *GE-21, *HEP52, *ECG159	
2N3583	*ECG124, *HEP240, *GE-12, *DS-41	
2N3584		
2N3585		
2N3588	2N3783, 2N3784, AF200, AF201, AF202, AF202S, AFY39, MM5000, MM5001, MM5002, *DS-41, *HF35, *GE-9, *TR-17, *HEP3, *SK3006, *ECG160	
-2N3589		
-2N3590		
-2N3591		
-2N3592		
-2N3593		
-2N3594		
-2N3595		
-2N3596		
2N3597	2N3598, HST8002, HST8015, HST8301, KSP1254, SDT8002, SDT8015, SDT8301	
2N3598	2N3599, HST8002, HST8003, HST8015, HST8016, HST8301, HST8302, KSP1255, SDT8002, SDT8003, SDT8015, SDT8016, SDT8301, SDT8302	
2N3599	HST8003, HST8016, HST8302, KSP1255, SDT8003, SDT8016, SDT8302	
2N3600	2SC667, MT1061A, *ECG108, *SK3019, *HEP56, *GE-17, *EN10, *DS-74, *AF4	
2N3605	2N744, 2N4256, 2N3606, 2N3607, 2N4264, EN744, PT720, *AF4, *DS-74, *EN10, *GE-17, *TR-21, *HEP55, *SK3019, *ECG123A	
2N3605A	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2221, 2N2481, 2N2501, 2N2539, 2N2710, 2N2845, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3510, 2N3511, 2N3606A, 2N3647, 2N3648, 2N3903, 2N3946, 2N4123, 2N4140, 2N4962, 2N5027, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, BSW82, GET708, GET914, GET2221, GET2369, GET3013, GET3014, GET3646, GI-3641, GI-3642, MM3903, MP56530, MP56531	
2N3606	2N744, 2N2556, 2N3605, 2N3607, 2N4264, EN744, PT720, *ECG123A, *SK3019, *HEP55, *TR-21, *GE-17, *EN10, *DS-74, *AF4	
2N3606A	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2221, 2N2481, 2N2501, 2N2539, 2N2710, 2N2845, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3510, 2N3511, 2N3605A, 2N3647, 2N3648, 2N3903, 2N3946, 2N4123, 2N4140, 2N4962, 2N5027, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, BSW82, GET708, GET914, GET2221, GET2369, GET3013, GET3014, GET3646, GI-3641, GI-3642, MM3903, MP56530, MP56531	
2N3607	2N744, 2N2556, 2N3605, 2N3607, 2N4264, EN744, PT720, *AF4, *DS-74, *EN10, *GE-17, *TK-21, *HEP50, *SK3019, *ECG123A	
2N3611	2N3612, 2N3613, 2N3614, 2N4243, 2N4244, MP2060, MP2061, *ECG121, *SK3009, *HEP230, *GE-3, *PT40, *DS503	
2N3612	2N3614, 2N3615, 2N3617, 2N4242, 2N4245, *ECG121, *SK3009, *HEP232, *GE-16, *DS-503	
2N3613	2N3614, 2N4246, 2N4247, MP2060, MP2061, *ECG121, *SK3009, *HEP230, *GE-16, *DS-503	
2N3614	2N4245, 2N4246, *DS-503, *GE-3, *HEP232, *SK3009, *ECG121	
2N3615	2N3616, 2N3617, 2N618, 2N619, *ECG121, *SK3009, *HEP232, *GE-3, *DS-503	
2N3616	2N3618, *DS-503, *GE-16, *HEP625, *SK3009, *ECG121	
2N3617	2N3618, 2N4242, 2N4245, *ECG121, *SK3009, *HEP232, *GE-16, *DS-503	
2N3618	*DS-503, *GE-16, *HEP625, *SK3009, *ECG121	
2N3619	2N3623, 2N3627	
2N3620	2N3624, 2N3628	
2N3621	2N3622, 2N3625, 2N3626, 2N3629, 2N3630, 8144003, 8144004, 8144006, 8144007, 8145003, 8145004, 8145006, 8145007, 8145008, 8146003, 8146004, 8146006, 8146007	
2N3622	2N3621, 2N3625, 2N3626, 2N3629, 2N3630, 8144003, 8144004, 8144006, 8144007, 8145003, 8145004, 8145006, 8145007, 8146003, 8146004, 8146006, 8146007	
2N3623	2N3619, 2N3627	
2N3624	2N3620, 2N3628	
2N3625	2N3621, 2N3622, 2N3626, 2N3629, 2N3630, 8144003, 8144004, 8144006, 8144007, 8145003, 8145004, 8145006, 8145007, 8146003, 8146004, 8146006, 8146007	
2N3626	2N3621, 2N3622, 2N3625, 2N3629, 2N3630, 8144003, 8144004, 8144006, 8144007, 8145003, 8145004, 8145006, 8145007, 8146003, 8146004, 8146006, 8146007	
2N3627		
2N3628		
2N3629	2N3630	

TRANSISTOR SUBSTITUTES

2N3630—2N3708-V10

Q1 To Replace	To Replace	Substitute This Type
	2N3630	2N3629
	2N3632	40665,*HEP53007
	2N3633	2N3960,2N5200,2N5201,*HEP56,*ECG108
	2N3634	2N3635,2N3636,2N3637
	2N3635	2N3637
	2N3636	2N3637
	2N3637	2N3637
	2N3638	2N727,2N869A,2N2695,2N2696,2N2927,2N3244,2N3829,2N4402,2N4403,2N5023,2N5041,2N5042,2N5811,BSW72,029E01,MPS3638,MPS6533,MPS6534,SE8540,SE8541,SE8542,T061,T062,*TR-19,*GE-22,*ECG159,*HEP716,*SK3025,*DS-66,*EP25
	2N3638A	2N5375,2N6001,BSW73,G1-3638A,MPS3638A,MPS6534,*EP25,*DS-56,*SK3025,*HEP716,*ECG159,*GE-22
	2N3639	2N869A,2N2894A,2N3012,2N3205,2N3546,2N3576,2N3640,2N4208,2N4209,2N4258,2N4313,2N4872,2N5055,2N5056,2N5057,2N5292,EN2894A,MM2894,MPS3640,MPSL08,*HEP25,*GE-21,*TR-19,*HEG159,*HEP57
	2N3640	2N869A,2N2894A,2N3012,2N3209,2N3546,2N3576,2N3635,2N4208,2N4209,2N4258,2N4313,2N4872,2N5055,2N5056,2N5057,2N5292,EN2894A,MM2894,MPS3640,MPSL08,*HEP57,*ECG159,*TR-19,*GE-21,*EP25
	2N3641	2N2848,2N3015,2N3299,2N3326,2N3642,2N4960,2N4961,2N4962,2N4963,FT3722,*EN10,*DS-81,*GE-17,*ECG123A,*HEP736,*SK3018
	2N3642	2N2848,2N3015,2N3299,2N3326,2N3641,2N4960,2N4961,2N4962,2N4963,FT3722,*HEP736,*ECG123A,*GE-17,*DS-74,*EN10
	2N3643	2N2960,2N2961,2N3300,*DS-66,*GE-18,*ECG123A,*HEP736,*SK3024
	2N3644	2N2905,2N2905A,2N2907,2N2907A,2N3486,2N3486A,2N3502,2N3503,2N3504,2N3505,2N3645,2N6005,FT3644,*FT3645,G1-3644,*HEP716,*ECG159,*GE-22,*EP25
	2N3645	2N2905,2N2905A,2N2907,2N2907A,2N3486,2N3486A,2N3503,2N3505,BSW75,FT3644,*EP25,*GE-21,*ECG129,*HEP708
	2N3646	2N744A,2N2501,2N3013,2N3014,2N3210,2N4295,2N4420,2N4422,25C67,25C427,25C601,25C601N,25C639,25C689,25C764,EN3013,EN3014,*GET2369,*GE T3013,GET3014,*GET3646,*HM2483,MPS3646,*HEP50,*SK3019,*ECG123A,*GE-17,*EN10,*DS-74,*AF4
	2N3647	*ECG108,*GE-20,*ECG123
	2N3648	*ECG108,*GE-20,*SN80,*HEP56
	2N3659	HST5055,HST5056,HST5555,HST5556,PT2524,PT2525
	2N3660	2N3661
	2N3661	2N5322
	2N3662	2N2616,2N2729,2N3544,2N3663,2N4997,EN918,MM1941,MPS6507,MT1038,MT1038A,MT1039,MT1060,PET3001,PET8101,*HEP56,*EN10,*GE-11,*ECG107
	2N3663	2N2616,2N2729,2N3544,2N3663,2N4997,EN918,MM1941,MPS6507,MT1038,MT1038A,MT1039,MT1060,PET3001,*ECG107,*GE-11,*SN80,*DS-81,*HEP56,*SK3018
	2N3664	2N3961,*TR-25
	2N3665	
	2N3666	
	2N3667	2N3235,2N5302,*40251,B170002-BLK,B170002-BRN,B170020,HST9201,HST9205,MJ3771,*GE-21,*SK3036,*MM100,*ECG130
	2N3671	2N2905,2N2905A,2N3503,2N4405,*ECG129,*HEP51
	2N3672	2N2907,2N2907A,2N3505,FT3644,*HEP57,*ECG159
	2N3673	2N3486,2N3486A,*ECG159,*HEP57
	2N3675	2N2858,2N2859,2N3676
	2N3676	2N2858,2N2859,2N3675
	2N3677	*HEP52,*ECG129,*TR-19
	2N3678	2N2218A,2N3722,2N3723,2N3725A,2N4961
	2N3681	2N3572,2N5031,2N5032,25C653
	2N3688	2N2369A,2N2501,2N3009,2N3013,2N3014,2N3689,2N3690,2N3862,2N4295,2N4418,2N5029,25C67,25C601N,25C639,25C764,GET2369,MM2483,SE5001,SE5002,SE5003,SE5006,*EN10,*HEP729,*ECG108,*GE-17
	2N3689	2N2369A,2N2501,2N3009,2N3013,2N3014,2N3688,2N3689,2N3862,2N4295,2N4418,2N5029,25C67,25C601N,25C639,25C764,GET2369,MM2483,SE5001,SE5002,SE5003,SE5006,*GE-17,*ECG108,*HEP729,*EN10
	2N3690	2N2369A,2N2501,2N3009,2N3013,2N3014,2N3688,2N3689,2N3862,2N4295,2N4418,2N5029,25C67,25C601N,25C639,25C764,GET2369,MM2483,SE5001,SE5002,SE5003,SE5006,*HEP729,*ECG108,*GE-20
	2N3691	2N9116,2N916A,2N957,2N2369A,2N2501,2N3009,2N3013,2N3014,2N3693,2N3862,2N4123,2N8673,25C67,25C68,25C68A,25C601N,25C764,EN918,MPS3693,MPS6513,PET1001,*HEP729,*SN80,*DS-66
	2N3692	PET2001,SE1001,SE2001,*GE-20,*TR-24,*ECG108,*SK3018,*SN80,*DS-81,2N3242A,2N3694,A1578,BC107,BC167,BC171A,BC171B,BCY58A,BCY58B,BCY59A,BCY59B,MPS3694,MPS3694A,MPS6514,MPS6520,PET1002,PET2002,SE1002,SE2002,*EN10,*SK3020,*ECG108,*GE-17
	2N3693	2N916,2N916A,2N847,2N3862,2N3903,2N3946,2N3974,2N3976,2N4227,2N4962,2N4994,2N5027,EN916,MM5903,MPS3693,MPS3826,MPS6505,PET1001,SE1001,*GE-20,*ECG108,*HEP729,*SN80,*DS-66
	2N3694	2N3302,2N4995,A1578,BC107,BC167,BC171A,BC171B,BCY59A,BCY59B,MM2484,MPS3694,MPS3827,MPS6566,PET1002,SE1002,*DS-66,*SN80,*HEP729,*ECG123A,*GE-20
	2N3700	*ECG154
	2N3701	2N2896,2N2899
	2N3702	2N2838,2N2907,2N2907A,2N3251,2N3251A,2N3486,2N3486A,2N3504,2N3505,2N3672,2N3673,2N3906,2N4143,2N5373,2N5375,2N5379,2N5447,2N5817,2N5819,2N6005,25A603,A177,BCW79,BSW73,029E05,029E06,GET2906,GET2907,G1-3644,G1-3702,MM3906,MPS3702,T060,*ECG159,*GE-22,*HEP716,*SK3025,*EP25
	2N3703	2N2837,2N2906,2N2906A,2N3250,2N3250A,2N3485,2N3485A,2N3672,2N3673,2N4142,2N4228,2N5372,2N5448,2N5815,2N5821,BSW74,029E04,029E09,GET2904,GET2905,G1-3703,MPS3703,*EP35,*HEP57,*GE-21,*ECG159
	2N3704	2N2222,2N2522A,2N2522,2N2540,2N3302,2N5449,2N5582,2N5818,2N6010,2N6014,G1-3704,*PET3704,*ECG123A,*GE-20,*HEP735,*SK3024,*DS-66
	2N3705	2N9115,2N2221,2N221A,2N2539,2N2897,2N2900,2N4013,2N4962,2N5450,2N5814,2N5820,2N5829,G1-3705,PET2001,SE1001,SE2001,*GE-10,*DS-66,*EN40,*SK3020,*HEP55,*ECG123A
	2N3706	2N6012,*ECG123A,*HEP55,*SK3020,*DS-66,*GE-18
	2N3707	2N3242A,2N3711,2N4265,2N4286,2N4287,G1-3707,G1-3708,G1-3711,MPS3707,MPS3708,*GE-17,*DS-66,*EN40,*SK3020,*HEP723,*ECG123A
	2N3708-BLU	2N3708-V10,PET4002,PET4003,*HEP732
	2N3708-BRN	2N760,2N2432,2N2432A,2N2501,2N3708-RED,2N3709,2N4138,2N4264,G1-3709,MPS3709,*HEP732,*TR-24
	2N3708-GRN	2N3708-BLU,2N3711,2N4286,2N4287,G1-3711,MPS3711,PET4002,*HEP732
	2N3708-ORG	2N2370,2N3707,2N3708-V10,2N3710,2N4074,2N4265,G1-3707,G1-3708,G1-3710,MPS3707,MPS3708,MPS3710,PET4001,*HEP732
	2N3708-RED	2N760,2N2432A,2N3708-ORG,2N4138,PET4001,*HEP732,*TR-24
	2N3708-V10	PET4003,*HEP732

Q1 To Replace	Substitute This Type
2N3708-YEL	2N3242A, 2N3707, 2N3708-GRN, 2N4265, G1-3707, G1-3708, MPS3707, MPS3708, *HEP732
2N3709	2N760, 2N2432, 2N2432A, 2N2501, 2N3708-URG, 2N3708-REC, 2N4138, 2N4264, G1-3709, MPS3709, *HEP55, *SK3020, *TR-24, *GE-17, *EN40, *DS-66, *ECG123A
2N3710	2N3242A, 2N3707, 2N4265, G1-3707, G1-3708, G1-3710, MPS3707, MPS3708, MPS3710, *ECG123A, *EN40, *GE-17, *SK3020, *HEP55
2N3711	G1-3711, MPS3711, PE14002, PE14003, *HEP55, *SK3020, *GE-17, *EN40, *DS-66, *ECG123A
2N3712	2N1934, 2N2500, 2N4925, *M2259, *M2260, *ECG154, *GE-20
2N3713	2N3714, *GE-14, *ECG130, *SK3036, *HEP247
2N3714	*SK3036, *ECG130, *GE-14
2N3715	*GE-14, *ECG130, *SK3036, *HEP247
2N3716	2N5039, *SK3036, *ECG130, *GE-14
2N3719	2N3720, 2N3867, *ECG129, *HEP242
2N3720	2N3868, *HEP242, *ECG129
2N3721	2N6000, 40232, 40233, 40397, 40399, 2N60, *ECG107, *HEP54, *SK3020, *GE-17, *EN10
2N3722	2N3723, 2N3725A, 2N4961
2N3723	*HEP714
2N3724	2N3724A, 2N4960
2N3724A	
2N3725	2N3722, 2N3723, 2N3725A, 2N4961
2N3725A	
2N3730	*HEP234, *SK3034, *GE-25, *ECG127
2N3731	*ECG127, *GE-25, *SK3035, *HEP235
2N3732	*SK3034, *GE-25, *ECG127
2N3733	2N5016, MSA7505, MSA8505
2N3734	2N3736, 2N5262
2N3735	2N3737
2N3736	
2N3737	
2N3738	2N3739, *ECG124, *GE-12, *HEP240
2N3739	*HEP240, *GE-12, *ECG124
2N3740	2N3740A, 2N3741, 2N3741A, *ECG153, *GE-26, *HEP702
2N3740A	2N3740, 2N3741, 2N3741A, *HEP702, *ECG153
2N3741	2N3741A, *HEP702
2N3741A	2N3741, *HEP702
2N3742	
2N3743	
2N3744	2N3745, 1718-0602, 1718-0605, 1718-0602, 1718-0805, SOT6408, SOT6409
2N3745	2N3746, SOT6409, SOT6410
2N3746	SOT6410
2N3747	2N3748, SOT6411, SOT6412
2N3748	2N3749, 2N3996, SOT6412, SOT6413
2N3749	2N3996, SOT6413
2N3750	2N3751, SOT6414, SOT6415
2N3751	2N3752, SOT6415, SOT6416
2N3752	SOT6416
2N3762	MM3726, *ECG129
2N3763	2N4406, *ECG129
2N3764	*ECG129
2N3765	*ECG129
2N3766	2N3767, 2N5428, 2N5430, *ECG152, *HEP703
2N3767	2N3878, 2N5430, *HEP241, *ECG124
2N3771	2N5302, 2N5685, MJ3771, *HEP247, *SK3036, *ECG130
2N3772	10872, *ECG130, *SK3036, *HEP247
2N3773	10972
2N3774	2N3775, STC5610, *HEP242, *ECG129
2N3775	2N3776, STC5610, *ECG129, *HEP242
2N3776	2N3777, STC5611, *ECG129
2N3777	STC5611, STC5612
2N3778	2N3774, 2N3775, 2N3779, *ECG129, *HEP242
2N3779	2N3775, 2N3776, 2N3780, *HEP242, *ECG129
2N3780	2N3776, 2N3777, 2N3781, *ECG129
2N3781	2N3777, *ECG129
2N3782	*ECG129, *HEP242
2N3783	2N3784, *HEP3, *ECG160
2N3784	2N3783, *ECG160, *HEP3
2N3785	2N3783, 2N3784, *HEP3, *ECG160
2N3788	MJ3029
2N3789	2N3790, 2N3791, 2N3792, *HEP248
2N3790	2N3792
2N3791	2N3792, *HEP248
2N3792	
2N3793	2N5251, 2N3261, 2N3510, 2N3511, 2N3647, 2N3648, *HEP56, *SK3020, *ECG108, *GE-20, *TR-25
2N3794	2N5370, 2N5376, *GE-20, *ECG123A, *SK3020, *HEP55
2N3798	2N3251A, 2N6355, 2N5374, *HEP57, *ECG159
2N3799	*ECG159, *HEP57
2N3818	
-2N3826	2N915, 2N2516, 2N3903, 2N3946, 2N3974, 2N3976, 2N4227, 2N4962, 2N4963, 2N4994, 2N5027, EN1015, MM3903, MPS3826, MPS6565, TIS99, *EN10, *GE-17, *ECG107, *SK3018
-2N3827	2N3302, 2N4995, BC174A, BC174B, MM2484, MPS3827, MPS6566, TIS98, *SK3018, *ECG107, *GE-17, *EN10
-2N3828	2N916, 2N3904, 2N3947, 2N4873, 2SC68, 2SC639, MPS6531, *EN10, *GE-17, *ECG123A, *HEP55
2N3829	*HEP52, *ECG159, *GE-21, *EN40
2N3830	
2N3831	
-2N3832	*ECG108, *HEP56
2N3833	2N3834, 2N3835
2N3834	2N3833, 2N3835
2N3835	2N3833, 2N3834
2N3839	2N3570, 2N3600, 40294, 40414, MT1061A
2N3840	2N4981, *HEP52, *ECG159
2N3841	
2N3842	
2N3843	2N706C, 2N743A, 2N758, 2N759, 2N783, 2N784, 2N834, 2N834A, 2N2368, 2N3261, 2N3793, 2N3843A, 2N8854A, 2N4421, 2SC370, 2SC455, 40405, 8SX25, GE7706, G1-3793, KT218, MP5006, *MPS834, *MPS6532, *MPS6540, *MPSH20, *MPSH32, *MPSH37, MT1038, MT1038A, MT1039, PET3001, SE1010, *ECG123A, *HEP50, *EN40, *DS-72, *GE-17, *TR-24

Q1 Q2 Q3 To Replace	Substitute This Type
2N3900A	2N2926-GRN, 2N3900, 2N3901, 2N6002, 2N6008, 98T2, A158E, A159B, 8C108B, 8C109, 8C109C, 8C131, 8C168, 8C169, 8C172B, BCY58C, *SK3020, *HEP72A, *ECG123A, *GE-20
2N3901	A158C, A159C, 8C108C, 8C109, 8C109B, 8C131, 8C169, 8C172C, BCY58D, *GE-10, *ECG123A, *HEP55, *SK3020
2N3902	DT5423
2N3903	2N3904, 2N3947, 2N4962, 2N4963, *HEP736
2N3904	2N2222A, 2N3947, 2N4401, 2N5582, MM3904, *HEP736, *EN10
2N3905	2N2906, 2N2906A, 2N3250, 2N3250A, 2N3486, 2N3486A, 2N3504, 2N3505, 2N3672, 2N3673, 2N3906, 2N4228, 2N4403, 2N5647, MM3905, *EP25, *HEP715, *ECG159, *GE-21
2N3906	2N3251, 2N3251A, 2N5647, 2N6005, MM3906, *GE-21, *ECG159, *HEP715, *EP25
2N3910	
2N3911	*SP70, *ECG159, *GE-21
2N3912	*GE-21, *ECG159, *SP70
2N3913	2N3910
2N3914	2N3911, *SP70, *ECG159, *GE-21
2N3915	2N3912, *GE-21, *ECG106, *SP70
2N3916	
2N3917	2N4111, *HN100, *GE-19
2N3918	2N4112, *GE-19, *HN100
2N3919	2N4114, HST5904, HST6905
2N3920	HST5914
2N3923	*ECG154
2N3924	*ECG123, *EN40, *GE-20, *HEP75
2N3925	
2N3926	2N3927, 2N5424A, 4Q282, SRF32214
2N3927	2N5102, 2N5424A, 4Q282
2N3928	6143008
2N3929	
2N3930	2N3931
2N3931	
2N3932	2N2857, 2N3600, 2N3839, 2N3933, 25C567, 25C568, 4Q294, 4Q295, 4Q413, A485, A490, HT1061A, *HEP56, *ECG108
2N3933	*ECG108, *HEP56
2N3945	
2N3946	2N2221A, 2N4962, 2N4963, MM3903
2N3947	2N2222A, 2N5582, MM3904
2N3948	*HEP75
2N3950	
2N3959	2N3960
2N3960	2N3959
2N3961	
2N3962	2N3963, 2N3965, *ECG159
2N3963	*ECG159
2N3964	2N3965, *ECG159
2N3965	*ECG159
2N3973	2N915, 2N2221, 2N2221A, 2N2515, 2N2539, 2N2845, 2N3115, 2N3301, 2N3974, 2N3975, 2N3976, 2N4014, 2N4962, 2N4963, 2N5581, 85W84, GET2221, GET2221A, GI-3641, *ECG123A, *GE-20, *EN40
2N3974	2N915, 2N2516, 2N2522, 2N2539, 2N3976, 2N4951, 2N4962, 2N4963, 2N5368, *EN40, *ECG123A
2N3975	2N915, 2N2221, 2N2221A, 2N2515, 2N2539, 2N2845, 2N3115, 2N3301, 2N3973, 2N3974, 2N3975, 2N3976, 2N4014, 2N4962, 2N4963, 2N5581, 85W84, GET2221, GET2221A, GI-3641, *ECG123A, *EN40, *GE-20
2N3976	2N915, 2N2516, 2N2522, 2N2539, 2N3974, 2N4951, 2N4962, 2N4963, 2N5368, *GE-20, *EN40, *ECG123A, *SK3024
2N3977	2N2945, *ECG159, *SP70, *GE-21
2N3978	2N2945, 2N2946, 2N2946A, 2N3218, *GE-21, *TR-19, *SP70, *ECG159
2N3979	2N3219, *ECG159, *SP70, *TR-28, *GE-21
2N3995	*ECG160
2N3996	2N3749, SDT6413
2N3997	2N3752, SDT6416
2N3998	2N2880, 2N4115, HST6313, HST6413, SDT6313
2N3999	2N4116, HST6316, HST6416, SDT6316
2N4000	2N4001
2N4001	
2N4002	2N4003, HST8013
2N4003	
2N4004	2N4005, HST8106, HST8116, SDT8106, SDT8116
2N4005	
2N4006	*TR-19
2N4007	*TR-19
2N4008	*TR-28
2N4012	
2N4013	2N4962, *GE-20, *ECG123A, *SN80
2N4014	2N4963, *SN80, *ECG123A, *GE-20
2N4026	2N4027, *ECG129
2N4027	*ECG129
2N4028	2N4029, *ECG129
2N4029	*ECG129
2N4030	2N4032, 2N4406, *ECG129
2N4031	2N4033, 2N4405, *ECG129
2N4032	2N4406, *ECG129, *GE-22, *EP25
2N4033	2N4405, *ECG129
2N4034	2N4035, 2N5244, 2N5447, *ECG106, *EP25, *GE-21
2N4035	2N5244, *GE-21, *EP25, *ECG106
2N4036	2N4314
2N4037	*HEP242
2N4040	
2N4041	2N4040
2N4046	2N2219A, 2N3724A, 2N4960, 2N5145
2N4047	2N2219A, 2N3725A, 2N4961
2N4048	2N4049, 2N4051, 2N4052
2N4049	2N4050, 2N4052, 2N4053
2N4050	2N4053
2N4051	2N4052
2N4052	2N4053
2N4053	
-2N4054	*HEP244, *ECG157
-2N4055	*ECG157, *HEP244

TRANSISTOR SUBSTITUTES

2N4056-2N4249

To Replace	Substitute This Type
-2N4056	*HEP244,*ECG157
-2N4057	*ECG157,*HEP244
2N4058	2N3582,2N3964,2N4061,2N4288,*HEP52,*ECG106,*EP35,*GE-21
2N4059	2N3582,2N3964,2N4058,2N4061,2N4062,2N4288,*GE-21,*EP35,*ECG106,*HEP52
2N4060	2N2946,2N2946A,2N3527,2N3581,2N3840,2N4285,2N4980,2N4981,2N5230,2N5231,*HEP52,*ECG106,*EP35,*GE-21,*TR-30
2N4061	2N3527,2N3582,2N4058,2N4980,*GE-12,*PN66,*ECG106,*HEP52
2N4062	2N3964,2N4288,*HEP52,*ECG106,*EP35,*GE-21
2N4063	
2N4064	
2N4068	*ECG154
2N4069	2N3500,2N4925,MM2259,MM2260
2N4070	KSP1176,SDT7604
2N4071	
2N4072	*ECG108,*GE-20,*SK3018
2N4073	*SK3018,*GE-18,*ECG108
2N4074	2N760A,2N760B,2N2522,2N3242A,40458,*ECG123A,*HEP55
2N4075	2N2880,2N2892,2N2893,2N3998,2N4076,2N4115,2N5002,2N5284,HST6313,HST6413,SDT6313,STT6313,STT6413
2N4076	2N2880,2N2893,2N3998,2N4115,2N5002,2N5004,2N5284,2N5285,HST6313,HST6413,SDT6313,STT6313,STT6413
2N4077	*ECG155
2N4078	*ECG131,*HEP443,*GE-30
2N4080	2N4957,2N4958,2N4959,2N5029,*ECG106,*GE-21,*SP70
-2N4081	BF168,BF173,BFX60
2N4104	*SK3020,*GE-20
2N4106	*AT20M,*ECG121,*ECG158,*GE-2,*HEP238
2N4111	2N4113,*GE-19,*HN100
2N4112	2N4114,*HN100,*GE-19
2N4113	*GE-19,*HN100
2N4114	*HN100,*GE-19
2N4115	
2N4116	
2N4121	2N4034,2N4035,2N4122,2N5244,2N5447,*SP70,*HEP52,*ECG106
2N4122	2N4035,2N5244,*ECG106,*HEP715,*GE-21
2N4123	2N916,2N916A,2N2221,2N2501,2N2539,2N3013,2N3014,2N3903,2N3946,2N4227,2N4951,2N4962,2N5027,2N5144,2N5368,2SC67,2SC68,2SC69,2SC76,*MM3903,MPS6530,MPS6531,*GE-20,*HEP724,*SK3020,*ECG123A
2N4124	2N4265,2N4954,2N5371,*ECG123A,*SK3020,*HEP53,*GE-20
2N4125	2N3135,2N3250,2N3905,2N4403,2N5365,2N5448,BSW72,MM3905,MPS6533,MPS6534,*HEP52,*ECG159
2N4126	2N3906,2N5355,2N5366,2N6001,MM3906,*ECG159,*HEP57
2N4127	
2N4128	
2N4130	*SK3036,*GE-14
2N4131	
2N4132	
2N4133	2N2781,2N2782,2N2783,2N3553,40605
2N4134	2N917A,2N3600,2N4135,2N4252,2N4253,2SC567,2SC568,40295,40413,BF168,BF173,BFX60,MT1061A,*GE-17,*ECG108
2N4135	2N917A,2N3600,2N4252,2N4253,2SC567,2SC568,40295,40413,BF168,BF173,BFX60,MT1061A
2N4137	2N2369,2N2369A,2N3511,2N3862,2SC639,2SC764
2N4138	
2N4140	2N915,2N2221,2N2221A,2N2539,2N2845,2N3115,2N3301,2N3903,2N3946,2N4227,2N4951,2N4962,2N4963,2N5027,2N5368,2N5381,BSW84,GET2221,GET2221A,G1-3641,G1-3642,MM3903,MPS6530,MPS6531,*ECG123A,*HEP50
2N4141	2N2222,2N2222A,2N2540,2N3116,2N3302,2N4401,2N4952,2N5028,2N5107,2N5369,2N5376,2N5377,2N5382,BSW85,GET2222,GET2222A,G1-3643,MM3906,*HEP55,*ECG123A
2N4142	2N2906,2N2906A,2N3250A,2N3485,2N3485A,2N4228,BSW74,GET2906,GET2907,*ECG159,*HEP52
2N4143	2N2907,2N2907A,2N3251A,2N3486,2N3486A,2N3505,BSW75,GET2906,GET2907,*HEP57,*ECG159
2N4150	2N5327,SDT7403,SDT7416
2N4207	2N4209,2N5057,2N5292,*ECG106
2N4208	2N2894A,2N3546,2N4209,2N5056,2N5057,2N5292,*ECG106
2N4209	2N5057,*ECG106
2N4210	2N4211
2N4211	ST15043,ST17060
2N4225	B3465
2N4226	
2N4227	2N3904,2N3947,2N4141,2N4401,2N4952,2N5028,2N5107,2N5369,2N5382,BSW85,GET2222,GET2222A,G1-3643,MM3904
2N4228	2N3250A,2N3486,2N3486A,2N3505,2N3672,2N3673,2N4144,BSW75,GET2906,GET2907
2N4231	2N4232,*HEP241
2N4232	2N4233,2N5427,2N5429,*HEP241
2N4233	2N3879,2N5429,*HEP241
2N4234	2N4235,*HEP242,*ECG129
2N4235	2N4236,*ECG129,*HEP242
2N4236	
2N4237	2N1613,2N1613A,2N2108,2N2270,2N2868,2N3724A,2N4960,*HEP243,*ECG128
2N4238	2N1613,2N1613A,2N1889,2N1974,2N2193,2N2193A,2N2193B,2N3107,2N3109,2N3722,2N3723,2N3725A,2N4239,2N4961,2N5150,*HEP243
2N4239	2N6998,2N1613B,2N1889,2N1893,2N1974,2N2102,2N2102A,2N2243,2N2243A,2N2443,2N3036,2N3107,2N3723,2N4001,2N5150
2N4240	
2N4241	*HEP230,*ECG121,*GE-16,*DS-520
2N4242	2N4245
2N4243	2N4242,2N4245,2N4246,*GE-16
2N4244	2N4243,2N4246,2N4247,*GE-16
2N4245	
2N4246	2N4245,*GE-16
2N4247	2N4246,*GE-16
2N4248	2N3251,2N3251A,2N3581,2N3582,2N3702,2N3905,2N3906,2N4034,2N4035,2N4121,2N4122,2N4143,2N4228,2N4965,2N5447,2SA603,AL177,BC177,BC203,BC251A,BC251B,BC261A,GET2906,GET2907,G1-3702,MM3906,MPS3702,*GE-21,*ECG159,*HEP715
2N4249	2N2605A,2N3547,2N3548,2N3549,2N3798,2N3962,2N3963,2N3965,2N4289,BC2568,BC2668,

Q1 To Replace	Substitute This Type
2N4249 (CONT.)	EN3962, *HEP708, *ECG159, *GE-21
2N4250	2N3548, 2N3549, 2N3550, 2N3799, 2N3964, 2N3965, 8C2518, 8C2613, *GE-22, *ECG159, *HEP57, *SK3025
2N4251	*HEP56, *ECG108
2N4252	
2N4253	2N4252, MT1061A
-2N4254	2N4073, 2SC639, PET3002, SE3005, *ECG107, *HEP56, *GE-17, *EN40
-2N4255	2N2369, 2N2369A, 2N3862, 2N4418, 2N4996, 2N4997, 2N5029, 2SC601N, 2SC639, 2SC754, *MPS2369, MT1060A, SE3005, TI587, *EN40, *GE-17, *HEP56, *SK3015, *ECG107
2N4256	2N3794, 2N5826, A1578, 8C107, 8C107B, 8C108, 8C108B, 8C109C, 8C167, 8C168, 8C171A, 8C171B, 8C172A, 8C172B, 8CY58A, 8CY58B, 8CY58C, 8CY59A, 8CY59B, 8CY59C, 8FY39-3, 8FY39-3A, 8FY39A, 8C107B, *ECG123A, *HEP55, *GE-17
2N4257	2N2894A, 2N3546, 2N4207, 2N4208, 2N4209, 2N4258, 2N4313, 2N4672, 2N5055, 2N5056, 2N5057, 2N5292, 2N2894A, MP5L07, MP5L08, *HEP57, *ECG159
2N4258	2N2894A, 2N3546, 2N4208, 2N4209, 2N4313, 2N4872, 2N5056, 2N5057, 2N5292, 2N2894A, MP5L08, *ECG159, *HEP52
2N4259	40474, *HEP50, *ECG123A
2N4260	2N4261, MM4261H
2N4261	MM4261H
2N4264	2N2501, 2N5144
2N4265	
2N4269	*ECG154
2N4270	*ECG154
2N4271	
2N4272	
2N4273	
2N4274	2N3829, 2N5448, *ECG108, *HEP50, *TR-19
2N4275	2N2369, 2N2369A, 2N2501, 2N3013, 2N3014, 2N3511, 2N3647, 2N3862, 2N4137, 2N5029, 2SC67, 2SC601N, 2SC639, 2SC764, GET2369, MP52369, MP56530, MP56531, *HEP50, *ECG100
2N4276	2N4277, 2N4278, 2N4279
2N4277	2N4279
2N4278	2N4279, 2N4280, 2N4281
2N4279	2N4281
2N4280	2N4281, 2N4282, 2N4283
2N4281	2N4283
2N4282	2N4283
2N4283	
2N4284	2N4285, 2N5230, *TR-19
2N4285	2N3340, 2N5231
2N4286	2N4287, PET4002, *GE-20, *ECG123A, *HEP54, *SK3020
2N4287	*SK3020, *HEP54, *ECG123A, *GE-20
2N4288	2N3964, *ECG159, *HEP57
2N4289	*ECG159
2N4290	2N2838, 2N3504, 2N4291, 2N5811, 2N5817, D29E01, D29F05, T460, TC62, *ECG159, *HEP57
2N4291	*HEP57, *ECG159
2N4292	2N743A, 2N834A, 2N2616, 2N2729, 2N4293, EN518, MM1941, MP5516, MP56507, MP56542, MP56543, MP56546, MP56547, MP56548, MT1038, MT1039, MT1060, PET3001
2N4293	2N743A, 2N834A, 2N2616, 2N2729, 2N4292, EN4918, MM1941, MP5518, MP56507, MP56542, MP56543, MP56546, MP56547, MP56548, MT1038, MT1038A, MT1039, MT1060, PET3001
2N4294	2N7444, 2N2369, 2N2369A, 2N2501, 2N2710, 2N3011, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3646, 2N3647, 2N3648, 2N3862, 2N4137, 2N4418, 2N4419, 2N4420, 2N4422, 2N5029, 2SC67, 2SC639, 2SC764, EN2369A, EN3011, EN3013, EN3014, GET2369, GET3013, GET3014, GET3646, MP52369, MP53646, *TR-21
2N4295	2SC601N, 2SC639, 2SC764, MM2483
-2N4296	-2, *ECG124, *HEP240
-2N4297	*HEP240, *ECG124, *GE-12
-2N4298	*ECG124, *HEP240
-2N4299	*HEP240, *ECG124
2N4300	
2N4301	HST7140, KSP1155
2N4305	
2N4306	2N4310
2N4307	2N740A, 2N4309
2N4308	2N4306, 2N4310, 2N4312
2N4309	2N740A
2N4310	2N4306
2N4311	2N4305
2N4312	2N4306, 2N4308, 2N4310
2N4313	2N2894A, 2N3546, 2N5056, 2N5057, 2N5292, 2N2894A, *ECG106, *HEP52
2N4314	
2N4346	*SK3035, *ECG127, *GE-16
2N4347	2N3442, 2N3865, 2N4348, 2N5634, HST9204, HST9209
2N4348	2N3442, 2N5631, 2N5634, 156-144, 156-164, HST9206, HST9209
2N4350	
2N4354	2N2905, 2N2905A, 2N2907, 2N2907A, 2N3480, 2N3486A, 2N3503, 2N3505, 2N4029, 2N4029, 2N4031, 2N4033, 2N4355, 2N5273, 2N5823, 8S575, D29E10, FT3644, *GE-21, *ECG159, *HEP708
2N4355	2N2905, 2N2905A, 2N2907, 2N2907A, 2N3486, 2N3486A, 2N4028, 2N4029, 2N4031, 2N4033, 2N4354, 2N5273, 2N5374, 8S575, *HEP708, *ECG159
2N4356	2N4029, 2N4031, 2N4033, 8S575, *ECG159
2N4357	
2N4358	
2N4359	2N3251, 2N3251A, 2N3547, 2N3548, 2N3798, 2N3962, 2N3964, 2N3965, 2N4354, 2N4355, 2N5373, 2N5374, 2N6005, GET2906, GET2907, MM4048
2N4383	
2N4384	2N6012
2N4385	2N4383
2N4386	2N4384, 2N6012
2N4387	*ECG153, *HEP702, *GE-26
2N4388	*GE-26, *HEP702, *ECG153
-2N4389	2N869A, 2N3012, 2N3209, 2N3546, 2N3576, 2N3639, 2N3640, 2N5057, 2N5292, MM2894, *ECG106, *TR-19
2N4390	
-2N4397	8F168, 8F173, 8FR60
2N4398	2N4399
2N4399	
2N4400	2N2516, 2N4014, 2N4962, 2N4963, *GE-17, *HEP721, *ECG123A

TRANSISTOR SUBSTITUTES

2N4401—2N4923

To Replace	Substitute This Type
2N4401	2N2222A,*ECG123A,*HEP721
2N4402	2N2906,*2N2906A,2N3485,2N3485A,2N3672,2N3673,2N4403,*HEP716,*ECG159
2N4403	2N2906,*2N2906A,2N3485,2N3485A,2N3672,2N3673,*ECG159,*HEP716,*SK3025,*GE-21
2N4404	*ECG129
2N4405	*ECG129
2N4406	*ECG129
2N4407	*ECG129
2N4409	2N871,2N2222A,2N2462,2N2466,2N2645,2N3038,2N5582,85M85,GET2222A
2N4410	*ECG154,*GE-18
2N4411	*ECG159
2N4412	2N4412A,*ECG129
2N4412A	*ECG129
2N4413	2N4413A,2N6013,D29E07,*ECG159
2N4413A	2N6017,*ECG159
2N4414	2N2905,2N2905A,2N4412,2N4412A,2N4414A,T059,*ECG129
2N4414A	2N2905,2N2905A,2N4031,2N4033,2N4405,2N4412A,*ECG129
2N4415	2N2907,2N2907A,2N4028,2N4413,2N4413A,2N4415A,2N5819,2N6011,D29E06,TQ60,*ECG159
2N4415A	2N2907,2N2907A,2N4028,2N4029,2N4413A,2N6015,*ECG159
2N4418	2N2369,2N2369A,2N3862,2N5029,2SC639,2SC764,MP52369,*ECG108
2N4419	2N744A,2N2369,2N2369A,2N2501,2N2710,2N3011,2N3013,2N3014,2N3210,2N3510,2N3511,2N3647,2N3648,2N3862,2N4137,2N4418,2N4420,2N4422,2N5029,2SC67,2SC639,2SC764,GET2369,GET3013,GET3014,GET3646,MP52369,*ECG108,MP52369,*ECG108,*TR-21
2N4420	2N708,2N708A,2N744A,2N784A,2N914,2N916,2N916A,2N2481,2N2501,2N2710,2N3013,2N3014,2N3210,2N3510,2N3511,2N3605A,2N3606A,2N3647,2N3648,2N4123,2N4264,2N4420,2N4422,2SC67,2SC321,2SC595,85M82,GET708,GET914,GET2369,GET3013,GET3014,MP56531
2N4421	2N708,2N708A,2N744A,2N784A,2N914,2N2318,2N2319,2N2481,2N2710,2N3011,2N3013,2N3014,2N3210,2N3261,2N3510,2N3511,2N3605A,2N3606A,2N3647,2N3648,2N4123,2N4264,2N4420,2N4422,2SC67,2SC321,2SC595,85M82,GET708,GET914,GET2369,GET3013,GET3014,MP56531
2N4422	GET3646,*TR-21
	2N708,2N708A,2N744A,2N784A,2N914,2N916,2N916A,2N2481,2N2501,2N2710,2N3013,2N3014,2N3210,2N3510,2N3511,2N3605A,2N3606A,2N3647,2N3648,2N4123,2N4264,2SC67,2SC68,2SC321,2SC639,2SC764,GET708,GET914,GET2369,GET3013,GET3014,GET3646,MP56530,MP56531
-2N4423	2N869A,2N3012,2N3209,2N3546,2N3576,MM2894
2N4424	2N3417,2N4384,*N4953,2N5370,2N6006,2N6012,GI-3417,PET8002,PET8004,*GE-20,*ECG123A,*SK3020
2N4425	2N4405,D33021J,*SK3020,*ECG123A,*GE-20
2N4427	2N4874,2N5109,2N5421,40280,*ECG128,*HEP53008
2N4428	2N3866
2N4429	2N4430,2N4431
2N4430	2N4431
2N4431	
2N4433	*ECG107,*HEP73A,*SK3018,*GE-17,*EN10
2N4436	2N915,2N2221,2N2221A,2N2539,2N2845,2N3115,2N3301,2N4014,2N4400,2N4951,2N4962,2N4963,2N5368,2N5581,85M84,EN915,GI-3641,GI-3642,MP56530,MP56531,*EN10,*GE-17,*ECG123A
2N4437	2N2222,2N2222A,2N2540,2N3116,2N3302,2N4401,2N4952,2N5107,2N5369,2N5376,2N5377,2N5582,85M85,EM2222,GI-3643,SE6022,SE6023,*ECG123A,*GE-17,*EN10
-2N4438	
-2N4439	
2N4440	2N3733,2N5016,MSA7505,MSA8505
2N4862	HST5004,HST5005,HST5051,SdT5004,SdT5005,SdT5051
2N4863	2N4862,HST5004,HST5005,HST5051,HST5054,HST5055,HST5551,SdT5004,SdT5005,SdT5051,SdT5054,SdT5055,SdT5551
2N4864	HST5904,HST5905,HST5951,HST6905,HST6906
2N4865	2N5250,KSP1002,KSP1003
2N4866	2N5251
2N4872	2N2894A,2N4209,2N5057,2N5292,*ECG106
2N4873	*ECG108
2N4874	
2N4875	2N4874
2N4876	2N4874,2N4875
2N4877	STT2404,STT2405
2N4888	
2N4889	2N3930,2N3931
2N4890	2N4405,40537,*ECG129
2N4895	2N6998,2N4897
2N4896	2N17118
2N4897	
2N4898	2N3740,2N3740A,2N4899,MJ3701,*ECG153,*HEP702,*GE-26
2N4899	2N3740,2N3740A,2N3741,2N3741A,2N4900,MJ2253,*GE-26,*HEP702,*ECG153
2N4900	2N3741,2N3741A,MJ2254,*HEP702
2N4901	2N3789,2N4902,2N4904,2N4905,*HEP705
2N4902	2N3789,2N3790,2N4903,2N4905,2N4906,*HEP248
2N4903	2N3790,2N4906
2N4904	2N3789,2N3791,2N4901,2N4902,2N4905,*HEP705
2N4905	2N3789,2N3790,2N3791,2N3792,2N4902,2N4903,2N4906,*HEP248
2N4906	2N3790,2N3792,2N4903,*HEP248
2N4907	2N3789,2N4908
2N4908	2N3789,2N3790,2N4909
2N4909	2N3790
2N4910	2N4911,*HEP703,*ECG124,*GE-23
2N4911	2N4912,*GE-23,*ECG124,*HEP703
2N4912	*HEP703,*ECG124,*GE-23
2N4913	2N3445,2N3447,2N4914,2N5067,2N5068,180T2,80Y238,*GE-19,*ECG130,*HEP247,*HN100
2N4914	2N3445,2N3447,2N4915,2N5068,2N5069,180T2,80Y238,*HN100,*HEP247,*ECG130,*GE-19
2N4915	2N3446,2N3448,2N5069,181T2,80Y248,*ECG130,*HEP247
2N4916	2N4034,2N4035,2N4121,2N4122,2N4917,2N5244,2N5447,*HEP52,*SK3025,*ECG159,*GE-22
2N4917	2N4035,2N4122,2N5244,*HEP52
2N4918	2N4919,*HEP700,*GE-29,*ECG153
2N4919	2N4920,*ECG153,*GE-29,*HEP246
2N4920	
2N4921	2N4922,*HEP245,*GE-28,*ECG152
2N4922	2N4923,*ECG152,*GE-28,*HEP245
2N4923	*HEP245,*GE-28,*ECG152

Q1 Q2	To Replace	Substitute This Type
2N4924	MM2258,*ECG154,*HEP713	
2N4925	MM2260,*HEP712,*ECG154	
2N4926	2N4927,*ECG154	
2N4927	*ECG154	
2N4928	2N3495,*ECG129	
2N4929	2N3634,2N3636	
2N4930	2N4931	
2N4931		
2N4932	2N3927,2N5424,40282,SRF32214	
2N4933	2N5071	
-2N4934	*ECG108,*HEP56	
-2N4935	*HEP56,*ECG108	
-2N4936	*ECG108	
2N4943	*ECG128	
2N4944	2N718A,2N736A,2N736B,2N870,2N910,2N2317,2N2460,2N2516,2N3077,2N4945,2N4963,BC110, T1599,*ECG128	
2N4945	2N718A,2N736A,2N736B,2N870,2N910,2N2317,2N2460,2N2516,2N3077,2N4944,2N4963,BC110, T1599,*ECG128	
2N4946	2N871,2N956,2N2461,2N2462,2N2465,2N2466,2N2645,2N4409,EN871,EN956,GET2222A, PET1075,T1598,*ECG128	
2N4950	2N3149,2N3150	
2N4951	2N4952,2N5107,2N5368,2N5369,2N5582,BSW85,G1-3643,*ECG123A,*SK3020,*GE-10,*EN40	
2N4952	2N2222,2N2222A,2N2940,2N3116,2N3302,2N5376,2N5377,*EN40,*GE-10,*SK3020,*ECG123A	
2N4953	2N5376,*ECG123A,*SK3020,*GE-10,*EN40	
2N4954	2N3302,2N4953,2N5370,2N5371,2N5376,2N5377,*EN40,*GE-10,*SK3020,*ECG123A	
2N4957	2N4958,2N4959,2N5829	
2N4958	2N4957,2N4959,2N5829	
2N4959	2N4957,2N4958,2N5829	
2N4960	2N4961,*ECG128	
2N4961	*ECG128	
2N4962	2N4963,*ECG128	
2N4963	*ECG128	
2N4964	2N722,2N722A,2N2394,2N2906,2N2906A,2N3250,2N3250A,2N3485,2N3485A,2N3703,2N4142, 2N4971,2N5372,2N5448,BSW74,EN722,GET2904,GET2905,G1-3703,MPS3703,*ECG128,*TR-28	
2N4965	2N2907,2N2907A,2N3251,2N3251A,2N3486,2N3486A,2N3505,2N3548,2N4143,2N4972,2N5373, 2N5374,2N6005,2SA603,A177,BC256A,BC257,BC266A,BSW75,EN2907,GET2906,GET2907, *ECG159	
2N4966	2N760A,2N760B,2N956,2N3903,2N4962,2SC943,*ECG123A,*GE-20,*SK3020	
2N4967	2N2580,2N3117,BC117,FT107C,GET2484,5E4020,T1597,*SK3020,*GE-20,*ECG123A	
2N4968	2N760,2N4074,2N4966,PET4001,SE4001,*ECG123A,*GE-20,*TR-2,*SK3020	
2N4969	2N708A,2N915,2N2221,2N2221A,2N2539,2N2848,2N3115,2N3301,2N4013,2N4400,2N4436, 2N4951,2N4962,2N5144,2N5368,2N5581,2N5814,BSW84,EN915,G1-3641,G1-3642,*MPS6530, MPS6531,*GE-17,*ECG123A,*EN10	
2N4970	2N2222,2N2222A,2N2540,2N3116,2N3302,2N5376,2N5377,*ECG123A	
2N4971	2N2906,2N2906A,2N3485,2N3485A,BSW74,*ECG159	
2N4972	2N2907,2N2907A,2N3486,2N3486A,2N3505,2N6005,BSW75,*ECG159	
2N4980		
2N4981	2N3840	
2N4982	*ECG159	
2N4994	2N915,2N2516,2N3946,2N3974,2N3976,2N4962,2N4963,MM3903,T1599,*ECG123A	
2N4995	2N3302,MM2484,T1598,*ECG123A	
2N4996	2N2369,2N2369A,2A3862,2N4873,2SC601N,2SC639,2SC764,PET3002,*ECG108,*GE-11, *SK3018,*HEP56	
2N4997	2N2369,2N2369A,2N3862,2N4418,2N4996,2N5029,2SC601N,2SC639,2SC764,MPS2369,MT1060A, T1587,*HEP56,*SK3018,*GE-11,*ECG108	
2N4998	2N4115,HST6313,HST6413	
2N4999	2N5286	
2N5000	2N4116,HST6316,HST6416	
2N5001	2N5287	
2N5002	2N5284	
2N5003		
2N5004	2N5285	
2N5005		
2N5006	2N5288	
2N5007	2N5290	
2N5008	2N5289	
2N5009	2N5291	
2N5010	2N5011,2N5095,2N5097	
2N5011	2N5012,2N5097,2N5098	
2N5012	2N5013,2N5098,2N5099	
2N5013	2N5014,2N5019,2N5099	
2N5014	2N5015	
2N5015	2N5015	
2N5016		
-2N5017		
2N5022	2N3245,2N3763,MM3726,*ECG129	
2N5023	2N3244,2N3762,MM3726,*ECG129	
2N5025	2N4933,2N5071,40340	
2N5026	40341	
2N5027	2N915,2N2539,2N4014,2N4951,2N4962,2N4963,2N5368,MPS6531	
2N5028	2N2222,2N2222A,2N2540,2N3116,2N3302,2N4401,2N4952,2N5376,2N5377	
2N5029	2N2369,2N2369A,2N3862,2SC639,2SC764,MPS2369	
2N5030	2N744A,2N2369,2N2369A,2N2501,2N2710,2N3009,2N3011,2N3013,2N3014,2N3210,2N3510, 2N3511,2N3647,2N3648,2N3862,2N4137,2N5029,2SC67,2SC639,2SC764,GET2369,GET3013, GET3014,GET3644,MPS2369,*TR-21	
2N5031	2N3572,2N3600,2N5032,2SC567,2SC653,*ECG107	
2N5032	2N3572,2N3600,2N5031,2SC567,2SC653,*ECG107	
2N5034	2N5036,40542,40543,40633	
2N5035	2N5037	
2N5036	40633	
2N5037		
2N5038		
2N5039	2N5038	
2N5040	2N727,2N869A,2N2412,2N3905,2N4125,2N4274,2N5041,2N5042,2N5354,2N5365,FT5040, FT5041,MM3905,MPS6516,MPSA70-RED,MPSA70-WHT,*TR-19	
2N5041	2N2520,2N3250A,2N3581,2N3703,2N3905,2N4142,2N5042,2N5448,2SA544,2SA552,2SA594,	

TRANSISTOR SUBSTITUTES

2N5042-2N5142

To Replace	Substitute This Type
2N5041 (CONT)	BC177, FT5041, GET2904, GET2905, GI-3703, MM3905, MP53703
2N5042	2SA544, 2SA552, 2SA594
2N5043	2N5044, T1XM101
2N5044	2N5043, T1XM101
-2N5048	
-2N5049	
2N5050	2N5051, *HEP241
2N5051	2N5052, *HEP241
2N5052	
2N5053	2N3570, 2N5054, MT1061A, *SK3018, *ECG108
2N5054	2N3570, 2N5053, MT1061A, *ECG108, *SK3018
2N5055	2N2894A, 2N3546, 2N4313, 2N5056, 2N5057, 2N5292, EN2894A
2N5056	2N3546, 2N5057
2N5057	2N3546
2N5058	*ECG154
2N5059	2N5058, *ECG154
2N5065	
2N5066	
2N5067	2N3445, 2N4913, 2N4914, 2N5068, 180T2, BDY23B, HST9201, HST9205, HST9801, *HEP247, *ECG130
2N5068	2N3445, 2N4914, 2N4915, 2N5069, 180T2, BDY23B, HST9201, HST9205, HST9206, HST9407, HST9802, *ECG130, *HEP247
2N5069	2N3446, 2N4915, 181T2, BDY24B, HST9202, HST9206, HST9207, HST9802, HST9803
2N5070	
2N5071	2N5026, 40341
-2N5074	
-2N5075	
-2N5076	
-2N5077	
2N5083	2N4115, 2N5085
2N5084	2N4116
2N5085	
2N5086	2N3547, 2N3548, 2N3549, 2N3798, 2N3962, 2N3965, 2N5087, 2N5374, 2N6007, BC2568, BC2668, *ECG159, *HEP715
2N5087	2N3549, 2N3550, 2N3799, 2N6007, BC2568, BC2668, *HEP57, *ECG159
2N5088	2N5828, BCY58D, BCY59D, *ECG123A, *HEP730, *SK3020, *GE-20
2N5089	*GE-20, *SK3020, *HEP730, *ECG123A
2N5090	
2N5092	2N5095
2N5095	2N5097
2N5097	2N5098
2N5098	2N5099
2N5099	
2N5101	
2N5102	2N5106
2N5106	2N2219, 2N2538, 2N3300
2N5107	2N2222, 2N2224, 2N2540, 2N3116, 2N3302, 2N4952, 2N5369, 2N5376, 2N5377, 2N5582, BSW585, EN2219, FT3643, GI-3643, SE6021, SE6021A
2N5108	2N5108A, *ECG128
2N5108A	2N5108
2N5109	*ECG128
-2N5110	*ECG129, *HEP242
-2N5111	*ECG129
-2N5112	
-2N5113	
2N5126	2N744, 2N2615, 2N3564, 2N3959, 2N3960, 2N4264, 2N4996, 2N5200, 2N5201, EN744, MPS6568, MPS6568A, MPS6568B, *HEP570, *HEP570, *PSHO2, *PSH10, *PSH11, *PSH30, *PSH31, *MT1060A, *PT720, *SE3005, *ECG161, *HEP727, *SK3020, *GE-20, *TR-22
2N5127	2N703, 2N744, 2N753, 2N2206, 2N2331, 2N2615, 2N2923, 2N3298, 2N3564, 2N3691, 2N3855A, 2N3959, 2N3960, 2N4264, 2N4996, 2N5126, 2N5200, 2N5201, 2SC455, 2SC460, 2SC461, 85Y61, EN744, *MPS6568, *MPS6568A, *MPS6569, *MPS6570, *PSHO2, *PSH10, *PSH11, *PSH30, *PSH31, *MT1060A, *PET2001, *PT720, *SE2001, *SE3005, *TR-21, *GE-10, *SK3020, *HEP723A, *ECG123A
2N5128	2N744, 2N753, 2N2331, 2N2784, 2N3298, 2N3633, 2N3959, 2N3960, 2N4264, 2N5200, 2N5201, 2SC425, 2SC426, 2SC427, *ORC, *PSH10, *PSH11, *PT720, *ECG123A, *SK3020, *GE-20, *TR-21
2N5129	2N744, 2N753, 2N2331, 2N2784, 2N2923, 2N3298, 2N3633, 2N3855, 2N3855A, 2N3959, 2N3960, 2N4264, 2N4996, 2N5200, 2N5201, 2SC459, 2SC460, 2SC461, 85Y61, GI-2712, 2N5223, 2SC454, *PSH10, *PSH11, *PET3002, *PT720, *SE3005, *TR-21, *GE-20, *SK3020, *HEP53, *ECG128
2N5130	2N744A, 2N3269A, 2N2615, 2N2616, 2N2729, 2N3011, 2N3210, 2N3563, 2N3564, 2N3646, 2N3688, 2N3689, 2N3690, 2N4137, 2N4275, 2N4294, 2N4295, 2N4418, 2N4419, 2N4996, 2N4997, 2N5029, 2N5030, 2SC67, 2SC601, 2SC601B, 2SC689, EN2369A, EN3011, MM1941, *MPS3563, *MPS6567, *MT1060A, *EN3001, *SE3002, *SE5001, *SE9002, *SE9003, *SE5006, *TI562, *T1587, *ECG161, *HEP56, *HE-17, *EN10
2N5131	2N2924, 2N2925, 2N3241A, 2N3692, 2N4124, 2N4256, 2N4265, 2N5172, 2N5219, 2N5223, 2SC454, 2SC458, BC108, BC108A, BC172A, BC173C, BCY58A, *MPS5126, *PBC108A, *PET2002, *SE2002, *GE-10, *SK3020, *ECG108
2N5132	2N3241A, 2N3692, 2N4124, 2N4265, 2N5224, 2SC454, 2SC458, BC108A, BC173C, *PET2002, *SE2002, *ECG107, *SK3020, *GE-10
2N5133	2N3952, 2N3953, 2N4256, 2N4286, 2N5172, 2N5223, 2SC3368, 2SC369, 2SC373, 40397, A1588, A1598, BC108, BC108B, BC109, BC122, BC148, BC170C, BC172A, BC172B, BCY58A, BCY58B, BCY58C, *MPS5172, *PBC108B, *PBC109B, *PET4002, *GE-20, *HEP50, *ECG161
2N5134	2N3564, 2N3959, 2N3960, 2N5200, 2N5201, EN744, SE3005, *HEP724, *GE-17, *TR-21, *EN10
2N5135	2N5088, 2N5828, BC109, BC172C, BCY58D, BCY59D, *MPS6521, *PET4003, *GE-20, *SK3020, *ECG128
2N5136	2N760, 2N916, 2N1986, 2N2331, 2N4074, 2N4873, 2N5825, 2SC68, 2SC74, 2SC639, 2SC852, BC173C, 8FY39-2, *MPS6513, *MPSA10-GRN, *MPSA10-WHT, *MPSA20-GRN, *MPSA20-WHT, *PET4001, *ECG128, *SK3020, *GE-17, *EN10
2N5137	2N760, 2N916, 2N2331, 2N3856A, 2N4074, 2N4873, 2N5825, 2SC68, 2SC372, 2SC400, 2SC454, 2SC458, 2SC459, 2SC639, BC173C, 8FY39-2, EN916, *MPS6513, *MPSA10-GRN, *MPSA10-WHT, *MPSA20-GRN, *MPSA20-WHT, *PET3002, *PET4001, *SE3005, *SE4001, *GE-20, *SK3020, *ECG123A
2N5138	2N3251, 2N3581, 2N3582, 2N3702, 2N3905, 2N3906, 2N4034, 2N4035, 2N4121, 2N4122, 2N4248, 2N4916, 2N4917, 2N4965, 2N5447, A177, BC177, BC178, BC202, BC203, BC251A, BC257, BC258, BC261A, GI-3702, MM3906, *MPS3702, *ECG159, *HEP52, *GE-20
2N5139	2N4916, 2N4917, *ECG159
2N5140	2N3948A, 2N3012, 2N3304, 2N3546, 2N3639, 2N3640, 2N4207, 2N4208, 2N4209, 2N4257, 2N4258, 2N4313, 2N4872, 2N5055, 2N5056, 2N5057, 2N5292, EN2894A, MM2894A, *MPS3639, *MPS3640, *MPSL07, *MPSL08, *ECG106, *TR-19
2N5141	*TR-19, *ECG106
2N5142	2N727, 2N869, 2N869A, 2N995, 2N2695, 2N2696, 2N2927, 2N3209, 2N3545, 2N3638, 2N3829, 2N5023,

Q1 Q2 Q3	To Replace	Substitute This Type
2N5142 (CDMT)	2N5242, 2N5243, FT1746, GI-3638, MPS3638, MPS6535, SE8540, SE8541, SE8542, TQ63, TQ64, *ECG159, *TR-19, *GE-22, *HEP51	
2N5143	2N727, 2N869, 2N869A, 2N995, 2N2695, 2N2696, 2N3209, 2N3545, 2N3829, FT1746, GI-3638, MPS3638, MPS6535, TQ64, *TR-19, *ECG159	
2N5144	2N4013, 2N4962	
2N5145	2N2219A, 2N3724A, 2N4046, 2N4960	
2N5147		
2N5148	2N1613B, 2N2102A	
2N5149		
2N5150	2N1711B	
2N5151		
2N5152	2N1613B, 2N2102A, 2N4305, 2N4311, SOT4454	
2N5153		
2N5154	2N1711B, SOT4456, *HEP237	
2N5155	*GE-25	
2N5156	*TR-27	
2N5157	*HEP740, *ECG129	
2N5160	*ECG129, *HEP76	
2N5161		
2N5162		
2N5172	2N3794, 2SC368, 2SC369, 8C108, 8C108B, 8C109C, 8C168, 8C172B, 8CY58A, 8CY58B, 8CY58C, GI-3794, *MPS5172, *GE-20, *ECG107, *HEP56, *SK3020	
2N5174	2N462, 2N2466, 2N2510, *ECG154	
2N5175	2N740, 2N740A, 2N2519, 2N4410, PET1075A, *ECG154	
2N5176	*ECG154	
2N5179	2N3570, 2N3571, 2N3572, 2N3600, 40414, MT1061A, *ECG107	
2N5180	2N917A, 2N2857, 2N3478, 2N3570, 2N3600, 2N3839, 2N3932, 2N3933, 2N4252, 2N4253, 2N5181, 2N5182, 2SC567, 2SC568, 2SC602, 2SC612, 40235, 40237, 40238, 40240, 40294, 40295, 40413, 40414, 40472, 40474, 40477, 40478, 40480, 40480A, 4485, 4490, 8F168, 8F173, 8FX60, MT1061A, *ECG108, *SK3018	
2N5181	40472, 40474, 40477, 40478, 40480, *ECG161	
2N5182	2N5181, 40472, 40474, 40477, 40478, 40480, *ECG161	
2N5183	2N3241A, *ECG123, *SK3020, *GE-20	
2N5184	2N739, 2N4068, 40354, TIS101, *ECG154	
2N5185	2N1613B, 2N2102A, 2N3500, 2N4069, 2N4925, 40355, MM3008	
2N5186	2N709A, 2N2475, 2N2784, 2N5187, *MPS6568, *MPS6568A, *MPSH02, *ECG123A, *TR-21	
2N5187	2N744A, 2N2710, 2N3210, 2N3510, 2N3511, 2N3647, 2N3648, *TR-21, *ECG123A	
2N5188	*ECG128	
2N5189	*SK3012	
2N5190	*ECG152, *HEP701	
2N5191	*ECG152	
2N5192		
2N5193	*ECG153, *HEP700	
2N5194	*HEP246, *ECG153	
2N5195		
2N5200	2N5201, *ECG108, *SK3020	
2N5201	2N5200, *SK3020, *ECG100	
2N5202		
2N5208	2N3829, 2N5365, 2N5448, *ECG106, *TR-19	
2N5209	2N909, 2N930B, 2N2484, 2N2484A, 2N2524, 2N3302, 2N4141, 2N4952, 2N5028, 2N5107, 2N5369, 2N5376, 2N5377, 2N5826, 2N6004, 8C107A, 8C171A, 8C174A, 8S885, GET930, GET2222, GET2222A, GI-3643, MM2484, *M3904, *ECG123A	
2N5210	2N3117, 2N3417, 2N4953, 2N5370, 2N6006, 8C107B, *ECG123A	
2N5214		
2N5215	2N3733, 2N5016, 2N5102, 40307, MS A7505, MS A8505	
2N5216		
2N5217		
2N5218	HST7141, HST7152, HST7156, HST7801, HST7802, HST7803, KSP1101, KSP1102, KSP1103, SOT7801, SOT7802, SOT7803	
2N5219	2N4124, 2N4265, 2N5223, 2N5415, 2N6000, 8C108, 8C108A, 8C172A, 8CY58A, PET2002, *ECG123A	
2N5220	*ECG123A	
2N5221	2N3249, GI-3638A, *MPS3638A, *ECG159	
2N5222	*ECG107	
2N5223	2N5420, 2N6002, 2N6008, 8C108, 8C108B, 8C109C, 8C172B, 8CY58B, 8CY58C, *MPS6514, *MPS6515, *MPS6520, *ECG123A, *HEP724	
2N5224	2N3227, 2N4124, 2N4265, 2N4954, 2N5371, 8C108A, 8C172A, 8C173C, 8CY58A, 8S883, *ECG123A	
2N5225	2N3227, 2N3242A, 2N3509, 2N3706, 2N4954, 2N5371, 2N5451, 2N5812, D33D22, GI-3706, *MPS3706, *PET3706, T860, T860, *ECG123A, *HEP721	
2N5226	2N5375, 2N5378, 2N5379, 2N5813, 2N6001, 8S873, 029E02, GI-3638A, *MPS3638A, TQ60, *ECG159	
2N5227	2N5828, 8C109C, 8C109B, 8C172C, 8CY58D, 8CY59D, *MPS6521, *ECG159	
2N5228	2N996, 2N2894A, 2N3012, 2N3217, 2N3304, 2N3546, 2N4006, 2N4208, 2N4872, 2N5056, 2N5057, 2N5229, 2N5292, *M2894, *MPS3640, *MPS107, *MPS108, *ECG106, *TR-19	
2N5229	2N5230, *TR-19	
2N5230	2N5231, *TR-19	
2N5231		
2N5232	2N5211, 2N5232A, 2N5249, 2N5249A, *ECG123A	
2N5232A	2N5211, 2N5232, 2N5249, 2N5249A, *ECG123A, *GE-18	
2N5236	2N3137, 2N3326, 2SC651	
2N5239	2N5240	
2N5240		
2N5241		
2N5242	2N5023, 2N5243, *ECG129	
2N5243	2N3245, 2N3762, 2N3764, 2N5022, 2N5023, MM3726, *ECG129	
2N5244	2N5235	
2N5249	2N5249A, *ECG128	
2N5249A	2N5249, *ECG128	
2N5250		
2N5251		
2N5262		
2N5263		
2N5264		
2N5284		
2N5285		
2N5286	2N4999	
2N5287	2N5001	
2N5288		

TRANSISTOR SUBSTITUTES

2N5289-2N5415

Q: b: t:	To Replace	Substitute This Type
2N5289		
2N5290	2N5007	
2N5291		
2N5292	2N2894A, 2N3546, 2N5057, *ECG108	
2N5293		
2N5294		
2N5295	2N5293, *GE-MR-6	
2N5296	2N5294, *GE-28, *ECG152, *HEP245	
2N5297	2N5293, 2N5493, 2N5497	
2N5298	2N5294, 2N5492, 2N5496	
2N5301	2N5302, 2N5685	
2N5302	2N5303, 2N5685, 2N5686	
2N5303	2N5686	
2N5309	2N736, 2N736A, 2N736B, 2N910, 2N915, 2N956, 2N2390, 2N2460, 2N2461, 2N2465, 2N2516, 2N4963, *ECG128	
2N5310	2N2462, 2N2466, 85W85, GET930, GET2222A, T1558, *ECG128	
2N5312	2N5314, 2N5316, 2N5318, 2N5386, SOT3103, SOT3104, SOT3107, SOT3108	
2N5313	2N5315, 8155000, 8155004	
2N5314	2N5318, 2N5386, SOT3104, SOT3108	
2N5315	8155000, 8155001, HST7140	
2N5316	2N5312, 2N5314, 2N5318, 2N5386, SOT3103, SOT3104, SOT3107, SOT3108	
2N5317	2N4301, 2N5006, 2N5313, 2N5319, 2N5412, 8155000, 8155002, 8155003, 8155004, 8155005, KSP1155, SOT3203, SOT3204, SOT3207, SOT3208	
2N5318	2N5314, 2N5386, SOT3104, SOT3108	
2N5319	2N4301, 2N5006, 2N5288, 2N5315, 8155000, 8155001, 8155002, 8155003, HST7140, KSP1155, SOT3201, SOT3204, SOT3208, SOT3209	
2N5320	2N5321	
2N5321		
2N5322	2N5323, *ECG106	
2N5323		
2N5324	2N5325, *HEP234, *GE-25	
2N5325	*GE-25	
2N5326	2N4116, HST6313, HST6413, SOT6313	
2N5327		
2N5328		
2N5329	2N5330	
2N5330		
2N5331		
2N5332		
2N5333		
2N5334	2N5335	
2N5335		
2N5336	2N5338	
2N5337	2N5339	
2N5338		
2N5339		
2N5344	2N5345	
2N5345		
2N5346	2N5347, 2N5477, 2N5478	
2N5347	2N5346, 2N5477, 2N5478	
2N5348	2N5349, 2N5479, 2N5480	
2N5349	2N5348, 2N5479, 2N5480	
2N5354	2N869A, 2N3829, 2N5365, *ECG159, *GE-21, *TR-19, *HEP51	
2N5355	2N5366, 2N6001, *HEP51, *ECG159	
2N5356	2N5367, 2N6003, *ECG159	
2N5357		
2N5365	*ECG159	
2N5366	2N6005, *ECG159	
2N5367	2N6007, *ECG159	
2N5368	2N4951, 2N4952, 2N5107, 2N5369, 2N5582, 85W85, GI-3643, *ECG123A	
2N5369	2N2222, 2N2222A, 2N2540, 2N3116, 2N3302, 2N4952, 2N5107, 2N5376, 2N5377, 2N5582, 85W85, GI-3643, *ECG123A	
2N5370	2N4953, *ECG123A	
2N5371	2N3302, 2N4953, 2N4954, 2N5370, 2N5376, 2N5377, *ECG123A	
2N5372	2N2906, 2N2906A, 2N3485, 2N3485A, 85W74, *ECG159	
2N5373	2N2907, 2N2907A, 2N3486, 2N3486A, 2N3505, 2N4028, 2N4029, 85W75, *ECG159	
2N5374	*ECG159	
2N5375	2N2907, 2N2907A, 2N3486, 2N3486A, 2N3504, 2N3505, 2N3672, 2N3673, 2N4028, 2N5373, 2N5379, 2N5819, 2N6005, 85W73, D29E05, D29E06, *ECG159	
2N5376	2N4953, 2N5370	
2N5377	2N4953, 2N5370, 2N5376	
2N5378	2N5379, 2N6007, *ECG159	
2N5379	2N2907, 2N2907A, 2N5378, 2N6005, 2N6007, 85W73, *ECG159	
2N5380	2N916, 2N916A, 2N2847, 2N3862, 2N4E73, 2N4962, 2SC68, 2SC639, 2SC764, MM3903, *ECG123A	
2N5381	2N3302, GET2222, MM2484, MM3904	
2N5382	2N3302, 2N3230A, 2N5365, 2N5447, 2N5448, GET2904, GET2905, MM3905, *ECG159	
2N5383	2N3231, 2N3251A, 2N4034, 2N4035, 2N5244, 2N5366, 2N5447, MM3906, *ECG159	
2N5384	2N5409, SOT3128, SOT3129, SOT3308, SOT3309	
2N5385		
2N5386		
2N5387	2N5388	
2N5388	2N5389	
2N5389		
2N5399	*ECG108	
2N5400	2N5401	
2N5401		
2N5404	2N5405	
2N5405		
2N5406	2N5407	
2N5407		
2N5408		
2N5409	2N5409, SOT3307, SOT3308	
2N5410	SOT3308, SOT3309	
2N5411	2N5411, SOT3303, SOT3304	
2N5412	SOT3304	
2N5415		

Q1 To Replace	Substitute This Type
2N5416	
-2N5417	2N2219, 2N2222, 2N2538, 2N2540, 2N2959, 2N2960, 2N2961, 2N3300, 2N3643, 2N5106, 2N6010, 85W83
2N5418	2N3647, 85W82, *ECG123A
2N5419	85W83, *ECG123A
2N5420	*ECG123A
2N5421	2N4427, 2N4874, 2N5109, 2N5422, 40280, *ECG128
2N5422	
2N5423	2N3926, 2N5424A, SRF32214
2N5424	2N3926, 2N3927, 2N5423, 2N5424A, 40282, 40292
2N5424A	2N5102, SRF32214
2N5427	2N5429
2N5428	2N5430
2N5429	
2N5430	
2N5435	2N5436
2N5436	2N5437
2N5437	
2N5438	2N5439
2N5439	2N5440
2N5440	
2N5447	*ECG159
2N5448	*ECG159
2N5449	2N2222, 2N2222A, 2N2540, 2N3302, 2N5582, 2N5818, 2N6010, 2N6014, G1-3704, PET3704, *ECG128
2N5450	2N915, 2N2539, 2N2897, 2N2900, 2N4013, 2N4962, 2N5814, 2N5820, D33D29, G1-3705, PET3705, TN54, *ECG128
2N5451	2N2222, 2N2540, 2N3242A, 2N3302, 2N3706, 2N5818, G1-3706, PET3706, TN60, *ECG128
2N5466	BDY28A
2N5467	*HEP740
2N5468	
2N5469	
2N5470	
2N5477	2N5346, 2N5347, 2N5478
2N5478	2N5346, 2N5347, 2N5477
2N5479	2N5348, 2N5349, 2N5480
2N5480	2N5348, 2N5349, 2N5479
2N5481	2N5482, 2N5766, 2N5767, 2N5768
2N5482	2N5483, 2N5768
2N5483	2N5768
2N5489	
2N5490	2N5492, 2N5494
2N5491	2N5493, 2N5495
2N5492	2N5496
2N5493	2N5497
2N5494	2N5490, 2N5492
2N5495	2N5491, 2N5493
2N5496	
2N5497	
2N5527	B143004, B143005
2N5528	
2N5529	2N3621, 2N3622, 2N3625, 2N3626, 2N5528, 2N5530
2N5530	2N3621, 2N3622, 2N3625, 2N3626, 2N5528, 2N5529
2N5531	B143006, B143007
2N5532	
2N5533	2N5532, 2N5534
2N5534	2N5532, 2N5533
2N5535	2N5536
2N5536	2N5535
2N5537	2N5538
2N5538	2N5537
2N5550	2N5551
2N5551	
2N5575	2N5576, 2N5577
2N5576	2N5575, 2N5577
2N5577	2N5575, 2N5576
2N5578	2N5579, 2N5580
2N5579	2N5578, 2N5580
2N5580	2N5578, 2N5579
2N5581	
2N5582	
2N5583	
2N5584	
2N5589	2N5995, 3TX601, MSA8508
2N5590	2N5646, 2N5700, 2N5701, 2N5713, 2N5994, 3TX602, MSA8507
2N5591	2N5705, MM1603, MSA8506
2N5595	2N5996
2N5596	
2N5629	2N5630
2N5630	
2N5631	
2N5632	2N3236, 2N5039, 2N5629, 2N5630, 2N5633
2N5633	2N5039, 2N5630
2N5634	2N5631
2N5635	2N5636, 2N5918, 3TX632, MM1549, MM1550
2N5636	2N5919, MM1550
2N5637	MM1551
2N5641	2N5918, MM1557
2N5642	MM1558
2N5643	MM1559, MSA8503
2N5644	2N5645, 2N5698, 2N5914
2N5645	2N5700
2N5646	2N5701
2N5650	2N5651, 2N5652, *ECG161
2N5651	2N5650, 2N5652, *ECG161
2N5652	2N5650, 2N5651, *ECG161
2N5655	2N5656, *ECG157

TRANSISTOR SUBSTITUTES

2N5656-2N5921

To Replace	Substitute This Type
2N5656	2N5657,*ECG157
2N5657	
2N5671	HST9203,HST9204,HST9804
2N5679	2N5680
2N5680	
2N5681	2N5321,2N5682
2N5682	
2N5683	2N5684
2N5684	
2N5685	2N5686
2N5686	
2N5687	2N5913
2N5688	
2N5689	
2N5690	MM1619,MM8012
2N5691	
2N5692	
2N5693	2N5694
2N5694	2N5695
2N5695	2N5696
2N5696	
2N5697	2N3948,2N4876
2N5698	2N5644,2N5645,2N5699,2N5700,2N5914,3TX820
2N5699	2N5645,2N5646,2N5700,2N5915
2N5700	2N5646,2N5701
2N5701	
2N5702	2N3924,2N5422,40290
2N5703	
2N5704	
2N5705	2N5591,MM1603,MSA8506
2N5706	
2N5707	2N5708
2N5708	
2N5709	
2N5710	2N4427,2N4874,2N5109,2N5687,2N5913
2N5711	
2N5712	
2N5713	2N5646,2N5700,2N5701,2N5994,2N5996,3TX602,MSA8507
2N5714	
2N5715	2N5766,2N5767
2N5729	
2N5730	
2N5731	
2N5732	
2N5761	
2N5762	
2N5764	2N5595,2N5765,MM4430,MT5764,MT5765
2N5765	2N5595,MT5765
2N5766	2N5767
2N5767	
2N5768	
2N5781	
2N5782	2N5781,MJ8100,MJ8101
2N5783	2N5782,MJ8100,MJ8101
2N5784	
2N5785	2N4877,2N5784
2N5786	2N5785
2N5804	2N5805,HST7203,HST7204,HST7205,KSP1143,KSP1144,KSP1145,SCT7203,SOT7204,SOT7205
2N5805	HST7205,SCT7205
2N5810	2N5816,2N6010
2N5811	2N2838,2N5815,2N5817,D29E01,D29E04,D29E05
2N5812	2N6012
2N5813	2N5819,2N6013,D29E02,D29E06,D29E07
2N5814	2N2539,2N4962,2N5822,40458,D33030
2N5815	2N2838,2N4026,2N5817,2N5821,2N5823,D29E04,D29E05,D29E09,D29E10
2N5816	2N2222,2N2222A,2N2540,2N5582,2N5818,2N5822,2N6010,2N6014,40458,D33030
2N5817	2N2838,2N4028,2N5819,2N5823,D29E05,D29E06,D29E10
2N5818	2N6012,2N6016
2N5819	2N4028,2N6013,2N6017,D29E06,D29E07
2N5820	2N4969,2N5822,D33029,D33030,TN54
2N5821	2N4027,2N5823,D29E09,D29E10
2N5822	2N2222A,2N5582,2N6014,D33030
2N5823	2N4029,D29E10
2N5824	2N915,2N3974,2N3976,2N4951,2N4962,2N5144,2N5368,2N5825,GET929
2N5825	2N2522,2N3116,2N3302,2N3947,2N4952,2N5107,2N5369,2N5377,2N5826,2N6004,BSM85,GET930,GET222,GET222A,G1-3643,MM3904
2N5826	2N4953,2N5370,2N5376,2N5377,2N6006,TIS97
2N5828	
2N5829	
2N5834	2N4957,2N4958,2N4959
2N5838	
2N5839	2N5839,BDY26A,HST7208,HST7209,SOT1050,SOT1055,SOT1060
2N5839	2N5804,2N5805,2N5838,2N5840,BDY26A,HST7203,HST7204,HST7205,HST7209
2N5840	2N5805,BDY27A,HST7205,SOT1051,SOT1056
2N5846	
2N5847	MM8012
2N5913	
2N5914	2N5645
2N5915	2N5646,2N5700
2N5916	2N5917
2N5917	2N5916
2N5918	
2N5919	
2N5920	
2N5921	

Q's To Replace	Substitute This Type
2N5929	2N5933, 2N5935, 1743-0820, 1743-1010, 1743-1030, HST9202, HST9203
2N5930	2N5931, 2N5934, 2N5936, 2N5937, 1743-1220, 1743-1410, 1743-1430, 1743-1620, HST9203, HST9204
2N5931	2N5937, 1743-1620, 1743-1810, 1743-1820, 1743-1830
2N5932	2N5929, 2N5935, 1743-0610, 1743-0630, 1743-0820, HST9202
2N5933	2N5930, 2N5934, 2N5936, 1743-1010, 1743-1030, 1743-1220, 1743-1410, 1743-1430, HST9202, HST9203, HST9204
2N5934	2N5931, 2N5937, 1743-1410, 1743-1430, 1743-1620, 1743-1810, 1743-1820, 1743-1830, HST9204
2N5935	2N5929, 2N5933, 1743-0820, 1743-1C10, 1743-1030, HST9202, HST9203
2N5936	2N5930, 2N5931, 2N5934, 2N5937, 1743-1220, 1743-1410, 1743-1430, 1743-1620, HST9203, HST9204
2N5937	2N5931, 1743-1620, 1743-1810, 1743-1820, 1743-1830
2N5992	MM8012
2N5993	
2N5994	
2N5995	MM8012
2N5996	2N5591, 2N5701, 2N5705, MM1603, MSA8506
2N6000	2N3242A, 2N5812, 2N5818, 2N6004, 2N6010, 85W83, D3D3D22
2N6001	2N3504, 2N6005, 85W73
2N6002	2N6006, 2N6008, 2N6012
2N6003	2N6004
2N6004	2N2222, 2N2222A, 2N2540, 2N3116, 2N5582, 2N5818, 2N6010, 85W85
2N6005	2N2907, 2N2907A, 2N3505, 85W75
2N6006	2N6012, 2N6016
2N6007	
2N6008	2N6002, 2N6006, 2N6012
2N6009	2N6003, 2N6007, 2N6013, D29E07
2N6010	
2N6011	2N2838, 2N4028, 2N5817, 2N5919, 2N5823, 2N6015, D29E05, D29E06, D29E10
2N6012	
2N6013	2N6017, D29E07
2N6014	2N2222A, 2N5582
2N6015	2N4029, 2N5823, D29E10
2N6016	
2N6017	
2N6046	1748-0610, 1748-0630, 1748-0810, 1748-0820, 1748-0830, MJ7000
2N6047	2N6048, 1748-1010, 1748-1030, 1748-1210, 1748-1220, 1748-1230, 1748-1410, 1748-1430, MJ7000
2N6048	1748-1410, 1748-1430, 1748-1610, 1748-1620, 1748-1630, 1748-1810, 1748-1820, 1748-1830
2557	SEE 2SA57
25189	SEE 2SB189
2SA12	2N711A, 2N711B, 2N829, 2N838, 2N964, 2N972, 2N985, 2N2273, 2N2796, 2N3320, 2SA15, 2SA372, 2SB176, SF. T307, *TR-17, *GE-9, *AA1, *SK3005, *HEP253, *ECG102A, *DS-56
2SA13	2N711, 2N711A, 2N711B, 2N794, 2N795, 2N829, 2N964, 2N965, 2N966, 2N967, 2N972, 2N973, 2N974, 2N985, 2N2273, 2N2400, 2N2796, 2N3320, 2SA12, 2SA15, 2SA16, 2SA372, 2SA412, SF. T307, *HEP250, *SK3005, *ECG160, *DS25, *TR-17, *GE-1, *AA1
2SA15	2N711A, 2N711B, 2N829, 2N838, 2N964, 2N964A, 2N972, 2N985, 2N2273, 2N2401, 2N2795, 2N2796, 2N3320, 2SA15, 2SA331, 2SA412, 2SA413, 2SA451, 2SB186, 2SB188, 40359, SF. T308, *HEP250, *SK3005, *ECG102A, *DS-25, *TR-17, *GE-1, *AA1
2SA16	2N711, 2N711A, 2N711B, 2N794, 2N795, 2N796, 2N829, 2N964, 2N964A, 2N965, 2N966, 2N967, 2N972, 2N973, 2N974, 2N985, 2N2273, 2N2400, 2N2401, 2N2795, 2N2796, 2N3320, 2SA15, 2SA331, 2SA412, 2SA413, 2SA451, 2SB186, 2SB188, 40359, SF. T308, *HEP250, *GE-1, *TR-17, *DS-25, *SK3005, *HEP250, *AA1
2SA17	*AA1, *HEP251, *SK3005, *DS56, *GE-1, *ECG102A
2SA18	*HEP251, *SK3005, *HEP250, *GE-9, *DS56, *AA1
2SA20	2N990, 2N993, 2SA58, 2SA60, 2SA76, 2SA77, 2SA92, 2SA93, 2SA175, AF124, AF125, AF126, AF127, AF134, AF135, AFY16, SF. T316, SF. T354, SF. T357, SF. T357P, SF. T358, *HEP639, *SK3005, *ECG126, *DS-25, *GE-9
2SA29	2N2496, 2N3127, 2N3279, 2N3280, 2N3281, 2N3282, 2N3283, 2N3284, 2SA57, 2SA72, 2SA73, 2SA234, 2SA236, 2SA340, 2SA341, 2SA342, 2SA343, 2SA436, 2SA437, 2SA438, AF137, AFY12, AFY12, *GE-9, *TR-17, *DS56, *ECG126, *SK3008, *HEP639
-2SA41	*ECG160, *HEP631, *SK3005, *GE-9, *DS56, *HF35
-2SA42	*HF35, *DS56, *GE-9, *HEP631, *ECG160
2SA49	2SB186, 2SB188, 2SB257, SF. T307, SF. T308, *GE-2, *ECG126, *HEP639, *SK3005, *DS56, *AA1
2SA50	2SB186, 2SB188, SF. T308, *AA1, *DS-25, *SK3005, *ECG102A, *GE-2, *TR-17
2SA52	2SA49, 2SA50, 2SB186, 2SB188, 2SB257, SF. T307, SF. T308, *AA1, *DS56, *HEP639, *SK3005, *GE-9, *TR-05
2SA53	2SA49, 2SA50, 2SA52, SF. T307, *TR-05, *GE-5, *SK3005, *HEP639, *DS56, *AA1, *ECG126
2SA57	2N2496, 2N3127, 2N3281, 2N3282, 2N3783, 2N3784, 2SA234, 2SA236, 2SA342, 2SA435, AFY12, AFY12, *TR-17, *GE-9, *SK3008, *DS56, *ECG126, *AA1
2SA58	2SA76, 2SA77, 2SA175, AF124, AF125, AF126, AF127, AFY16, SF. T354, SF. T357, SF. T358, *AA1, *ECG126, *DS56, *SK3006, *HEP639, *GE-9
2SA60	2SA58, 2SA76, 2SA77, 2SA92, 2SA175, AF124, AF125, AF126, AF127, AF134, AF135, SF. T316, SF. T354, SF. T357, SF. T357P, SF. T358, *AA1, *ECG126, *DS56, *HEP639, *GE-9
2SA69	2N2495, 2N2496, 2N2654, 2N3127, 2N3281, 2N3282, 2SA70, 2SA71, *AA3, *ECG126, *DS-41, *HF124, *HEP640, *SK3006, *TR-17, *GE-1
2SA70	2N2495, 2N2496, 2N2654, 2N3127, 2N3281, 2N3282, 2SA65, 2SA71, *GE-9, *TR-17, *SK3006, *HEP640, *AT20M, *DS41, *ECG160, *AA3
2SA71	2N2495, 2N2496, 2N2654, 2N3127, 2N3281, 2N3282, *SK3006, *HEP640, *TR-17, *GE-9, *DS41, *AT20M, *ECG126, *AA3
2SA72	2N2496, 2N3127, 2N3281, 2N3282, 2N3783, 2N3784, 2SA57, 2SA234, 2SA236, 2SA246, 2SA340, 2SA341, 2SA342, 2SA343, 2SA435, AFY12, AFY12, *SK3006, *HEP639, *DS56, *JRI00, *TR-17, *GE-9, *ECG126, *AA1
2SA73	2N274, 2N2496, 2N3127, 2N3783, 2N3784, 2SA57, 2SA72, 2SA234, 2SA236, 2SA246, 2SA433, 2SA435, AF136, AF137, AF138, AFY12, AFY16, AFY12, *ECG160, *HEP639, *SK3007, *AA3, *GE-9, *TR-17, *JRI00, *DS56
2SA74	*DS-41, *AT20M, *GE-2, *AA1, *SK3006, *HEP638, *ECG160
2SA75	*ECG126, *HEP638, *SK3007, *AA1, *GE-2, *AT20M, *DS-25
2SA76	AFY16, *DS25, *GE-9, *AA1, *SK3006, *HEP639, *ECG126
2SA77	2SA58, 2SA76, 2SA175, AF124, AF125, AF126, AFY16, SF. T316, SF. T354, SF. T357, SF. T357P, SF. T358, *ECG126, *HEP639, *SK3008, *AA1, *GE-9, *DS25
2SA78	*GE-9, *HEP637, *ECG126
-2SA80	2N3783, 2N3784, 2SA235, 2SA246, AF134, AF135, SF. T316, SF. T354, SF. T357, SF. T358, *GE-9,

TRANSISTOR SUBSTITUTES

2SA81—2SA277

Q1 To Replace	Substitute This Type
2SA801 (CONT)	*ECG126, *HEP637, *SK3006, *DS56, *HF12M, *AA1
-2SA81	2N3783, 2N3784, 2SA235, 2SA246, AF134, AF135, SF, T316, SF, T354, SF, T357, SF, T358, *AA1, *JR30X, *DS56, *SK3008, *HEP638, *ECG160, *GE-9
-2SA82	2N3783, 2N3784, 2SA235, 2SA246, AF134, AF135, SF, T316, SF, T354, SF, T357, SF, T358, *GE-1, *ECG126, *HEP638, *SK3008, *DS-25, *HF12M, *AA1
-2SA83	2N274, 2N384, 2N987, 2N1023, 2N3783, 2N3784, 2SA278, 2SA246, AF134, AF135, AF136, *AA4, *JR30X, *DS41, *SK3007, *HEP638, *ECG126, *GE-9
-2SA84	2N274, 2N384, 2N987, 2N1023, 2N3783, 2N3784, 2SA246, AF134, AF135, *GE-9, *ECG160, *HEP638, *SK3007, *DS41, *JR30X, *AA1
-2SA85	2N987, 2N3783, 2N3784, *HEP638, *ECG126
-2SA86	*ECG160, *HEP635, *DS56, *GE-9
2SA92	2N990, 2N993, 2SA85, 2SA60, 2SA76, 2SA77, 2SA92, 2SA175, AF124, AF125, AF126, AF127, AF134, AF135, SF, T316, SF, T354, SF, T357, SF, T358, *GE-9, *HEP639, *SK3007, *ECG126, *DS41, *JR30, *AA1
2SA93	2N990, 2N993, 2SA85, 2SA60, 2SA76, 2SA77, 2SA92, 2SA175, AF124, AF125, AF126, AF127, AF134, AF135, AFY16, SF, T316, SF, T354, SF, T357, SF, T357P, SF, T358, *AA1, *JR30, *DS56, *ECG126, *SK3007, *HEP639, *GE-9
2SA100	*DS56, *JR100, *ECG126, *SK3005, *HEP639, *GE-9
2SA101	*GE-9, *HEP638, *SK3007, *ECG126, *JR100, *DS41, *AA1
2SA102	*SK3007, *HEP638, *GE-9, *ECG126, *DS41, *JR100, *AA1
2SA103	*ECG126, *GE-9, *SK3006, *HEP638, *DS41, *JR100, *AA1
2SA104	*DS-25, *HF12M, *GE-1, *SK3008, *HEP638, *ECG126, *AA1
2SA121	2N297, 2N499, 2N987, 2N588, 2N979, 2N980, 2N828, 2N846, 2N960, 2N968, 2N976, 2N979, 2N980, 2N984, 2N2796, 2SA372, 2SB171, 2SB172, 2SB173, AS221, MM380, *TR-17, *GE-9, *SK3006, *HEP1, *ECG126, *AA3, *JR100, *DS41
2SA122	2N499, 2N499A, 2N501A, 2N559, 2N588A, 2N710, 2N711A, 2N828, 2N846A, 2N960, 2N968, 2N976, 2N979, 2N980, 2N984, 2N2796, 2SA372, 2SB171, 2SB172, 2SB173, AS221, MM380, *DS41, *JR100, *AA3, *ECG126, *HEP1, *SK3006, *GE-9, *TR-17
-2SA123	2N499, 2N499A, 2N501A, 2N559, 2N588A, 2N710, 2N711A, 2N828, 2N846A, 2N960, 2N968, 2N976, 2N979, 2N980, 2N984, 2N2796, 2SA372, 2SB171, 2SB172, 2SB173, AS221, MM380, *TR-17, *GE-9, *SK3006, *HEP1, *ECG126, *AA3, *DS41
2SA124	2N501A, 2N559, 2N588A, 2N711A, 2N7118, 2N838, 2N846A, 2N976, 2N979, 2N980, 2N984, 2N2796, 2SA372, AS221, MM380, *DS41, *JR100, *AA3, *ECG126, *HEP1, *SK3006, *GE-9, *TR-17
2SA125	2N559, 2N711A, 2N7118, 2N829, 2N838, 2N846, 2N976, 2N979, 2N980, 2N983, 2N984, 2N2796, 2N3320, 2SA372, AS221, MM380, *TR-17, *GE-9, *HEP1, *ECG126
2SA127	*GE-9, *ECG160, *DS-56
2SA128	*DS-25, *ECG158, *SK3008, *AA1
2SA129	*JR100, *SK3008, *ECG158, *DS25
2SA161	2N700, *HF75, *DS41, *SK3006, *HEP636, *ECG126, *GE-9, *TR-05
2SA162	2N700, *TR-05, *GE-9, *ECG126, *HEP636, *SK3006, *DS-61, *JR100
2SA163	AF239, AF240, AFY37, *JR100, *DS-41, *SK3006, *HEP636, *ECG126, *GE-9, *TR-05
2SA165	2N3279, 2N3280, 2N3281, 2N3282, 2N3283, 2N3284, 2SA438, AF239, AF240, AFY37, MM1139, *HEP636, *ECG126, *TR-17
2SA166	*TR-08, *GE-9, *ECG126, *HEP636, *SK3006, *DS-41, *HF75
2SA175	2SA88, 2SA76, AF124, AF125, AF126, AF127, AFY16, SF, T357, SF, T358, *HEP639, *SK3006, *DS26, *JR30, *ECG126, *GE-9, *AA1
2SA182	*SK3005, *DS-25, *JR10, *ECG100, *GE-9, *AA1
2SA201	2SA182, 2SA202, *GE-9, *TR-17, *JR10, *DS-25, *HEP253, *SK3005, *ECG126, *AA1
2SA204	*ECG126, *HEP253, *SK3008, *TR-17, *GE-9, *AA1, *DS-25, *JR30X
2SA203	2SA182, 2SA201, 2SB185, *GE-9, *TR-17, *HEP253, *ECG102A, *JR10, *DS-25, *AA1
2SA208	2N135A, 2N316A, 2N317A, 2N428, 2N579, 2N579A, 2N580, 2N580A, 2N1017, 2N1018, 2N1313, *ECG100, *SK3005, *HEP253, *GE-1, *AA1, *DS25, *HF6M
2SA209	2N660, 2N662, 2N1171, 2N2375, 2SA210, *HF6M, *DS25, *AA1, *GE-1, *HEP253, *SK3005, *ECG100
2SA210	2N660, 2N661, 2N1316, 2N1317, *ECG100, *SK3005, *HEP253, *GE-1, *AA1, *DS-25, *HF12M
-2SA211	2N306, 2N396A, 2N414, 2N414B, 2N414C, 2N415, 2N415A, 2N416, 2N450, 2N582, 2N584, 2N1115, 2N1171, 2N1284, 2N1305, 2N1313, 2N1347, 2N1681, 2N2375, 2SA209, 2SA212, 2SA217, 2SA282, 2SA283, 2SA284, ASY27, SF, T228, SYL792, *HF6M, *DS25, *AA1, *GE-1, *TR-05, *HEP250, *SK3005, *ECG100
2SA212	2N396A, 2N404A, 2N414, 2N414B, 2N414C, 2N415, 2N415A, 2N416, 2N505, 2N582, 2N584, 2N1171, 2N1305, 2N1313, 2N1348, 2N1349, 2N1350, 2N1351, 2N1681, 2N2375, 2SA217, ASY27, SF, T228, *ECG100, *SK3005, *HEP631, *TR-05, *GE-1, *AA1, *DS25, *HF6M
2SA217	2N404A, 2N582, 2N584, *HF35, *DS56, *GE-9, *HEP250, *ECG100
2SA219	2N827, 2N2635, 2N2795, 2SA222, 2SA223, 2SA323, 2SA331, 2SA413, *GE-9, *HEP637, *SK3006, *ECG160, *DS-25, *HF35, *AA1
2SA221	*GE-9, *HEP637, *SK3008, *ECG160, *DS-25, *HF35, *AA1
2SA222	2N637, 2N2635, 2SA221, 2SA223, 2SA323, *AA1, *HF12M, *DS-25, *ECG160, *SK3008, *HEP637, *GE-1
2SA223	2N827, 2N2635, 2SA221, *GE-9, *HEP637, *SK3006, *ECG160, *DS-25, *HF12M, *AA1
2SA229	2N700A, 2N3127, 2N3783, 2N3784, 2SA230, 2SA432, AFY39, AFY42, MM5000, MM5001, MM5002, *ECG160, *DS41, *SK3006, *HEP3, *TR-17
2SA230	2N700A, 2N3127, 2N3783, 2N3784, 2SA229, 2SA432, AFY39, AFY42, MM5000, MM5001, MM5002, *TR-17, *HEP3, *SK3006, *DS-41, *ECG160
-2SA233	2N2496, 2N3127, 2N3281, 2N3282, 2N3783, 2N3784, 2SA234, 2SA235, 2SA246, AFY12, *ECG160, *HEP3, *SK3007, *DS25, *HF12M, *TR-17, *GE-9, *AA1
2SA234	2N2496, 2N3783, 2N3784, 2SA235, 2SA246, AFY12, *ECG160, *SK3006, *HEP637, *DS41, *HF12M, *GE-1, *GE-9, *AA1
2SA235	2N274, 2N2496, 2N3127, 2N3783, 2N3784, 2SA47, 2SA72, 2SA73, 2SA234, 2SA235, 2SA246, 2SA433, 2SA435, AF136, AF137, AF138, AFY12, AFY16, AFZ12, *HEP639, *SK3007, *ECG126, *DS41, *JR10, *TR-17, *GE-9, *AA1
2SA236	2N990, 2N993, 2SA28, 2SA85, 2SA60, 2SA76, 2SA77, 2SA92, 2SA93, 2SA175, AF124, AF125, AF126, AF127, AF134, AF135, AFY16, SF, T316, SF, T354, SF, T357, SF, T357P, SF, T358, *AA1, *GE-9, *JR10, *DS25, *ECG126, *SK3008, *HEP639
2SA239	2N3783, *TR-17, *GE-9, *ECG160, *SK3006, *HEP3, *DS41, *JR100, *AA3
2SA240	2N709A, 2N2496, 2N3127, 2N3281, 2N3282, 2N3399, 2N3783, 2N3784, 2SA229, 2SA230, 2SA431, 2SA432, AFY37, AFY42, AFZ12, MM5000, MM5001, MM5002, *AA3, *HF12M, *DS41, *HEP3, *SK3006, *ECG160, *GE-9, *TR-17
2SA241	*DS41, *HF75, *SK3006, *HEP640, *TR-17, *GE-9, *ECG160
2SA246	*ECG126, *TR-17, *GE-9, *HEP3, *SK3006, *JR200, *DS56, *AA3
-2SA247	*ECG126, *GE-9, *HEP1, *DS56, *JR100, *AA3
2SA248	2SA278, *AA1, *F20M, *ECG100
-2SA250	*ECG126, *AT20M, *DS-25, *AA1, *HEP637, *SK3008, *GE-2
2SA276	*HEP3, *ECG126, *TR-17, *GE-9, *JR200, *DS56, *AA1
2SA277	2N396A, 2N397, 2N415, 2N415A, 2N416, 2N1307, 2N1354, 2N1355, 2N1356, 2N1357, 2SA210, 2SA278, 2SA283, 2SA284, 2SA305, 2SB186, 2SB188, 2SB290, *DS26, SF, T223, SF, T229, *AA1, *DS-25, *HF6M, *GE-1, *TR-05, *ECG100, *HEP250

Q1	To Replace	Substitute This Type
2SA278	2N397, 2N417, 2N1307, 2N1316, 2N1317, 2N1357, 2SA210, 2SB186, 2SB188, SF, T229, *HEP250, *SK3005, *ECG100, *GE-1, *HF12H, *DS-25, *AA1	
2SA279	*ECG100, *HEP638	
2SA282	2N396A, 2N397, 2N414, 2N414B, 2N414C, 2N415, 2N415A, 2N416, 2N1171, 2N1305, 2N1307, 2N1355, 2N1356, 2N1357, 2N1681, 2N2375, 2SA283, 2SA284, SF, T223, SF, T228, SF, T229, *GE-2, *TR-05, *HEP250, *SK3005, *ECG100, *AA1, *DS25, *HF6M	
2SA283	2N396A, 2N397, 2N415, 2N415A, 2N416, 2N1305, 2N1307, 2N1355, 2N1356, 2N1357, 2SA284, *SF, T229, *HF12H, *DS-25, *AA1, *ECG100, *SK3005, *HEP254, *GE-1	
2SA284	2N397, 2N1307, 2N1317, 2N1357, SF, T229, *GE-1, *HEP254, *SK3005, *ECG100, *AA1, *DS-25, *HF12M	
-2SA288	*HEP-9, *HEP3, *SK3008, *ECG126, *AA1, *DS25, *JR100	
-2SA289	*ECG126, *HEP3	
-2SA290	*HEP3, *ECG126	
2SA304	2N397, 2N415, 2N415A, 2N416, 2N654, 2N654+, 2N1008, 2N1307, 2N1317, 2N1354, 2N1355, 2N1356, 2N1357, 2N1382, 2N1382+, 2SA210, 2SA278, 2SA284, 2SA305, 2SB186, 2SB188, 2SB290, 40269, SF, T229, SF, T229, *ECG102A, *HEP250, *TR-05	
2SA305	2N397, 2N415, 2N415A, 2N416, 2N1307, 2N1317, 2N1355, 2N1356, 2N1357, 2SA210, 2SA278, 2SA284, 2SB186, 2SB188, 2SB290, SF, T229, *HEP250, *ECG100	
2SA311	*ECG100, *SK3008, *DS25, *AA1	
2SA312	*AA1, *DS25, *SK3008, *ECG100	
2SA313	2N982, 2N1498, 2N1726, 2N1728, 2N1748A, 2N2273, 2N2402, 2N2795, 2N3323, 2N3324, 2N3325, 2N3412, 2SA311, 2SA315, 2SA316, 2SA331, 2SA413, *ECG126, *SK3008, *HEP638, *DS25, *AA1, *GE-9	
2SA314	2N982, 2N1498, 2N1726, 2N1728, 2N1748A, 2N2273, 2N2402, 2N2795, 2N3323, 2N3324, 2N3325, 2N3412, 2SA313, 2SA315, 2SA316, 2SA331, 2SA413, *GE-9, *AA1, *DS25, *HEP638, *SK3008, *ECG126	
2SA315	2N982, 2N1498, 2N1726, 2N1728, 2N1748A, 2N2273, 2N2402, 2N2795, 2N3323, 2N3324, 2N3325, 2N3412, 2SA316, 2SA331, 2SA413, *ECG126, *SK3008, *HEP638, *DS25, *AA1, *GE-9	
2SA316	2N982, 2N1498, 2N1726, 2N1728, 2N1748A, 2N2273, 2N2402, 2N2795, 2N3323, 2N3324, 2N3325, 2N3412, 2SA413, *GE-9, *AA1, *DS25, *HEP638, *SK3008, *ECG126	
2SA321	2N838, 2N2795, 2N3323, 2N3324, 2N3325, 2SA219, 2SA322, 2SA324, 2SA331, 2SA413, *ECG160, *SK3006, *HEP639, *DS-41, *HF35, *GE-9, *TR-17	
2SA322	2N838, 2N2795, 2N3323, 2N3324, 2N3325, 2SA219, 2SA321, 2SA324, 2SA331, 2SA413, *TR-17, *GE-1, *HF12M, *DS-25, *HEP639, *SK3008, *ECG160, *AA1	
2SA323	2N827, 2N2635, 2SA221, 2SA222, 2SA223, *AA1, *ECG160, *SK3008, *HEP637, *DS-25, *HF12M, *GE-9	
2SA324	2N838, 2N2795, 2N3323, 2N3324, 2N3325, 2SA219, 2SA321, 2SA322, 2SA331, 2SA413, *HEP-9, *TR-17, *HF35, *DS-25, *HEP637, *SK3006, *ECG160, *AA1	
2SA331	2N827, 2N2635, 2SA413, *SK3006, *ECG126	
2SA338	*HEP639, *SK3008, *ECG126, *DS56, *HF35, *GE-9, *TR-17	
2SA339	2N838, 2N2273, 2N2796, 2N3323, 2N3324, 2N3325, 2SA321, 2SA322, 2SA324, *TR-17, *GE-9, *HF35, *DS56, *ECG126, *SK3008, *HEP639, *AA1	
2SA340	2N2496, 2N3127, 2N3281, 2N3282, 2SA341, 2SA342, 2SA435, AFY12, AFZ12, *HEP637, *ECG160, *TR-17	
2SA341	2N2496, 2N3127, 2N3281, 2N3282, 2SA340, 2SA342, 2SA435, AFY12, AFZ12, *TR-17, *GE-9, *ECG160, *HEP637, *SK3008, *DS-25	
2SA342	2N2496, 2N3127, 2N3281, 2N3282, 2SA435, AFY12, AFZ12, *ECG160, *DS-41, *JR100, *SK3006, *HEP637, *GE-9, *TR-17	
2SA344	*HEP638, *ECG126	
2SA350	2N827, 2N2273, 2N2795, 2SA331, 2SA413, 2SB175, 2SB176, *HEP639, *SK3006, *ECG126, *JR100, *DS41, *GE-9	
2SA351	2N838, 2N1632, 2N1637, 2N1638, 2N1639, 2N2273, 2N2795, 2N3323, 2N3324, 2N3325, 2SA331, 2SA350, 2SA354, 2SA355, 2SA413, 2SB175, 2SB176, SF, T317, *GE-9, *TR-17, *SK3007, *HEP639, *ECG126, *DS41, *HF12M	
2SA352	2N838, 2N1632, 2N1637, 2N1638, 2N1639, 2N2273, 2N2795, 2N3323, 2N3324, 2N3325, 2SA331, 2SA350, 2SA351, 2SA353, 2SA354, 2SA355, 2SA413, 2SA451, 40488, SF, T317, SF, T320, *HEP639, *GE-9, *JR100, *ECG126, *SK3006, *HEP639, *TR-17, *GE-9	
2SA353	2N838, 2N1632, 2N1637, 2N1638, 2N1639, 2N2188, 2N2273, 2N2795, 2N2957, 2N3323, 2N3324, 2N3325, 2SA354, 2SA355, 2SB175, 2SB176, *GE-9, *TR-17, *SK3006, *HEP639, *ECG126, *DS41, *JR100	
2SA353A	2N2190, 2SA354A, 2SA355A, 2SB177, *SK3006, *GE-9	
2SA354	2N838, 2N1632, 2N1637, 2N1638, 2N1639, 2N2188, 2N2273, 2N2795, 2N2957, 2N3323, 2N3324, 2N3325, 2SA353, 2SA355, 2SA355, 2SB175, 2SB176, *DS41, *JR100, *ECG126, *SK3006, *HEP640, *GE-9, *TR-17	
2SA354A	2N2190, 2SA353A, 2SA355A, 2SB177, *SK3006	
2SA355	2N2188, 2N2189, 2N2273, 2N2795, 2N2957, 2SB175, 2SB176, *DS41, *HF35, *ECG126, *GE-9, *HEP640, *SK3006	
2SA355A	2N2190, 2SA353A, 2SA354A, 2SB177	
2SA356	2N796, 2N964, 2N964A, 2N965, 2N966, 2N967, 2N972, 2N973, 2N974, 2N974, 2N985, 2N1526, 2N2401, 2N2402, 2N3320, 2SA331, 2SA350, 2SA413, 2SA451, 40488, SF, T317, SF, T320, *HEP639, *GE-9, *ECG126, *HF35, *DS56	
-2SA357	2N964, 2N964A, 2N965, 2N966, 2N972, 2N973, 2N974, 2N985, 2N3320, 2SA413, 2SA451, *DS-25, *ECG126, *HEP639	
-2SA358	*SK3006, *ECG126, *DS-41	
2SA372	2N829, 2N964, 2N972, 2N985, *HEP636, *HF35, *ECG160, *GE-9	
2SA377	2N3279, 2N3280, 2N3283, 2N3284, 2SA378, 2SA379, 2SA437, 2SA438, *DS-41, *HF75, *TR-17, *GE-9, *SK3006, *HEP640, *ECG160	
2SA378	2N3279, 2N3280, 2N3283, 2N3284, 2SA379, 2SA438, *ECG160, *HEP640, *GE-9, *TR-17, *HF75	
2SA379	2N3279, 2N3280, 2N3283, 2N3284, 2SA378, *HF75, *TR-17, *GE-9, *HEP640, *ECG160	
2SA385	2N2613, *GE-9, *DS-25, *HF35, *HEP250, *ECG126	
-2SA391	2N396A, 2N397, 2N415, 2N415A, 2N416, 2N654+, 2N1305, 2N1307, 2N1354, 2N1355, 2N1356, 2N1357, 2SA284, *SF, T223, SF, T229, *ECG126, *HEP636, *DS56, *HF35, *GE-9, *TR-05	
-2SA392	2N397, 2N417, 2N598, 2N599, 2N1307, 2N1309, 2N1316, 2N1317, 2N1355, 2N1356, 2N1357, 2N1998, *GE-9, *HF35, *DS56, *HEP636, *ECG126	
-2SA393	2N599, 2N1309, 2N1998, 2N2374, *ECG126, *HEP636, *DS56, *HF35, *GE-9	
-2SA393A	2N599, 2N1998, 2N2374, *GE-9, *HF35, *DS56, *HEP636, *ECG126	
-2SA394	*ECG126, *HEP636, *DS56, *HF35, *GE-9	
-2SA395	*GE-9, *HF35, *DS56, *HEP636, *ECG126	
-2SA396	*ECG102, *HEP636, *DS25, *HF12M, *GE-1	
-2SA397	2N598, 2N599, 2N1998, *GE-1, *HF12M, *DS25, *HEP636, *ECG102	
-2SA398	2N599, 2N2374, *ECG126, *HEP636, *DS56, *HF35, *GE-9	
-2SA399	*GE-9, *HF35, *DS56, *HEP636, *ECG126	
-2SA401	*HEP3, *ECG160	
2SA412	2N7118, 2N829, 2N964, 2N964A, 2N965, 2N966, 2N967, 2N972, 2N973, 2N974, 2N985, 2N2401, 2SA451, *HEP3, *ECG126, *SK3006, *GE-9, *DS-41	
2SA413	*HEP3, *ECG160	

TRANSISTOR SUBSTITUTES

2SA414-2SB52

Q1 BT	To Replace	Substitute This Type
	2SA414	2N315A, 2N316A, 2N394, 2N404A, 2N428, 2N1017, 2N1018, 2N1313, 2SA415, SF. T226, *ECG100, *HEP631, *SK3005, *DS-25, *GE-1, *TR-05
	2SA415	2N404A, 2N414, 2N1017, 2N1171, 2N1313, 2N1348, 2N1350, 2N1351, 2N1681, 2N2375, *GE-1, *DS-25, *SK3005, *HEP631, *ECG100
-	2SA416	*ECG127, *HD3000, *GE-25
	2SA422	*ECG160, *HEP3, *TR-12
	2SA431	2N700A, 2N3127, 2N3783, 2N3784, 2SA229, 2SA230, 2SA432, 2AFY39, AFY42, MM5000, MM5001, MM5002, *ECG160, *HEP3, *TR-17
	2SA432	2N700A, 2N3783, 2N3784, AFY42, MM5000, MM5001, MM5002, *ECG160, *HEP3, *SK3006, *DS-41
	2SA433	2N714, 2N2496, 2N3127, 2N3783, 2N3784, 2SA57, 2SA72, 2SA234, 2SA235, 2SA246, 2SA435, AFY12, AFY16, AFZ12, *ECG160, *HEP639, *SK3006, *DS41, *HF35, *TR-17, *GE-9
	2SA435	2N3783, 2N3784, *ECG160, *HEP3, *SK3006, *DS-41, *TR-17
	2SA436	2N3127, 2N3279, 2N3280, 2N3281, 2N3282, 2N3283, 2N3284, 2SA437, 2SA438, AFY12, *TR-17, *GE-9, *HF75, *SK3006, *HEP3, *ECG126
	2SA437	2N3127, 2N3279, 2N3280, 2N3281, 2N3282, 2N3283, 2N3284, 2SA436, 2SA438, AFY12, *ECG126, *HEP3, *SK3006, *HF75, *DS-41, *GE-9, *TR-17
	2SA438	2N3127, 2N3279, 2N3280, 2N3281, 2N3282, 2N3283, 2N3284, AFY12, *TR-17, *GE-9, *DS-41, *HF75, *SK3006, *HEP3, *ECG126
	2SA440	2N982, 2N2273, 2N2795, 2N3323, 2N3324, 2N3325, 2SA219, 2SA222, 2SA323, 2SA331, 2SA413, *ECG160, *HEP3, *SK3006, *HF75, *DS-41, *GE-9
	2SA446	2N985, *ECG126, *HEP2
	2SA448	*ECG160, *HEP637, *HF75, *GE-9
	2SA450	2N829, 2N966, 2N965, 2N972, 2N973, *HEP1, *ECG160
	2SA451	2N827, 2N2402, *ECG160, *HEP1
	2SA452	*ECG160, *HEP1
-	2SA465	
	2SA468	2N827, 2N2635, 2SA221, 2SA223, *HEP639, *ECG126, *DS-25, *SK3007, *GE-9
	2SA469	2N827, 2N1526, 2N2402, 2N2635, 2SA221, 2SA222, 2SA223, 2SA323, 2SA468, 2SA470, *GE-9, *SK3007, *DS-25, *ECG126, *HEP639
	2SA470	2N827, 2N1526, 2N2635, 2SA221, 2SA223, 2SA468, *HEP639, *ECG126, *SK3006, *GE-9
	2SA471-1	2N404A, 2N979, 2N980, 2N1524, 2N2796, 2SB171, 2SB172, 2SB173, ASZ21, *HEP639, *ECG126, *SK3006, *TR-17, *GE-9
	2SA471-2	2N982, 2N1632, 2N1637, 2N1638, 2N1639, 2N2273, 2N2402, 2N2795, 2N3323, 2N3324, 2N3325, 2SA219, 2SA222, 2SA323, 2SA331, 2SA350, 2SA355, 2SA413, 2SA469, 2SB175, 2SB176, SF. T317, SF. T320, *GE-9, *TR-17, *SK3006, *ECG126, *HEP639
	2SA472-1	2N1524, 2SB171, 2SB172, 2SB173, ASZ21, *TR-17
	2SA472-2	2N1632, 2N1637, 2N2273, 2N2402, 2N3323, 2N3324, 2N3325, 2SA331, 2SA350, 2SA355, 2SA413, 2SB175, 2SB176, SF. T317, SF. T320
	2SA472-3	
	2SA472-4	2N1524, 2SA472-1, 2SB171, 2SB172, 2SB173, 2SB185, ASZ21, SF. T319, *TR-17
	2SA472-5	2N1632, 2N1637, 2N2273, 2N2402, 2N3323, 2N3324, 2N3325, 2SA331, 2SA350, 2SA355, 2SA413, 2SA472-2, 2SB175, 2SB176, 2SB186, 2SB188, 4O355, SF. T308, SF. T317, SF. T320
	2SA472-6	2N2613*, 2SA472-3, 4O490
	2SA530	2N2906, 2N2906A, 2N3135, 2N3250, 2N3250A, 2N3485, 2N3485A, 2N4142, 2N4971, 2N5468, 8B5W74, GET2904, GET2905, *ECG159
	2SA532	2N3151, *ECG129, *HEP51
	2SA535	2N3284
	2SA536	2N4027, 2N4036, 2N4404, 2N5821, 2SA606, D29E08, D29E09
	2SA537	2N4404, *HEP708, *ECG129
	2SA537A	*ECG129
	2SA539	2N2906, 2N2906A, 2N3250A, 2N3485, 2N3485A, 2N3910, 2N3913, 2N4142, 2N4228, 2N5372, 2N5821, 8B5W74, D29E08, D29E09, GET2904, GET2905, *HEP715, *ECG159
	2SA542	2SA543, FX3502, FX4034, MMT3905, *ECG159
	2SA543	2SA542, FX3502, FX4034, MMT3905
	2SA544	2N3503, 2SA552, *ECG159, *HEP708
	2SA545	2N2906, 2N2906A, 2N3910, 2N3913, 2N5821, 8B5W74, D29E08, D29E09, *ECG159
	2SA552	2N3503, 2SA544, *ECG129, *HEP708
	2SA571	*ECG129
	2SA594	2N4890, 2SA544, 2SA552, 4O537, *ECG129
	2SA603	*ECG161, *HEP708
	2SA604	2N740, 2N740A, 2N2519, 2N4410, PET1075A
	2SA605	SE7017
	2SA606	*ECG129
	2SA607	
	2SA613	*ECG153
	2SA614	*ECG153
	2SB22	*AA1, *GE-2, *ECG102A, *JR15, *SK3004, *DS-26, *HEP632
	2SB25	*HEP232, *DS-503, *SK3009, *PT40, *ECG104, *GE-3, *TR-01, *AA4
	2SB27	DC30, *ECG104, *TR-01, *GE-3, *SK3009, *DS503, *PT40, *HEP230, *AA4
	2SB28	*AA62, *HEP230, *PT40, *DS503, *SK3009, *GE-3, *TR-01, *ECG104
	2SB29	2N4078, AD162, *ECG104, *TR-02, *GE-3, *SK3009, *DS503, *PT40, *HEP230, *AA4
	2SB30	*AA4, *HEP230, *DS503, *SK3009, *PT40, *GE-3, *TR-01, *ECG104
	2SB31	2N4078, AD162, *ECG104, *TR-02, *GE-3, *SK3009, *DS503, *PT40, *HEP230, *AA4
	2SB40	*SK3004, *DS26, *JR15, *GE-2, *TR-05, *ECG102A, *AA1, *HEP254
	2SB43	2N1382*, 2SB56, 2SB75, 2SB77, 2SB94, 2SB186, 2SB187, 2SB188, ACY23, ACY32, SF. T323, *HEP631, *ECG102A, *GE-2, *TR-05, *JR15, *DS-26, *SK3003
	2SB43A	2SB55, 2SB56A, *SK3004, *DS-26, *TR-05, *GE-2, *ECG102A, *HEP632
	2SB44	2N2239, 2N41A, 2N3202, 2N3212, 2N323, 2N324, 2N360, 2N362, 2N397, 2N415, 2N415A, 2N416, 2N508, 2N508A, 2N522, 2N656, 2N656A, 2N964, 2N964A, 2N972, 2N985, 2N1008, 2N1280, 2N1281, 2N1307, 2N1316, 2N1317, 2N1344, 2N1353, 2N1354, 2N1355, 2N1356, 2N1357, 2N1381, 2N1382, 2N1382*, 2N1705, 2N1706, 2N1707, 2N2401, 2N2402, 2N3371, 2SA446, 2SB186, 2SB188, 4O269, SF. T223, SF. T229, SF. T237, *AA1, *HEP250, *ECG102, *GE-2, *TR-05, *DS26, *SK3004, *HF6M
	2SB47	2N2613*, *AA1, *HEP251, *ECG102A, *GE-2, *TR-14, *DS26, *SK3003, *JR15
	2SB48	2N611, 2N188A, 2N188A*, 2N302, 2N320, 2N322, 2N361, 2N394, 2N395, 2N404, 2N413, 2N414, 2N414A, 2N414B, 2N414C, 2N450, 2N520, 2N582, 2N653, 2N711A, 2N828, 2N960, 2N968, 2N1017, 2N1097, 2N1098, 2N1142, 2N1143, 2N1144*, 2N1171, 2N1204A, 2N1284, 2N1303, 2N1313, 2N1347, 2N1478, 2N1681, 2N3883, 2SA282, 2SA283, 2SA415, 2SB185, MM380, SF. T222, SF. T227, SF. T228, *JR15, *SK3004, *DS26, *TR-05, *GE-2, *ECG102, *HEP250, *AA1
	2SB49	2N2239, 2N41A, 2N3202, 2N3212, 2N323, 2N324, 2N360, 2N362, 2N397, 2N415, 2N415A, 2N416, 2N508, 2N508A, 2N522, 2N656, 2N656A, 2N964, 2N964A, 2N972, 2N985, 2N1008, 2N1280, 2N1281, 2N1307, 2N1316, 2N1317, 2N1344, 2N1353, 2N1354, 2N1355, 2N1356, 2N1357, 2N1381, 2N1382, 2N1382*, 2N1705, 2N1706, 2N1707, 2N2401, 2N2402, 2N3371, 2SA446, 2SB186, 2SB188, 4O269, SF. T223, SF. T229, SF. T237, *AA1, *HEP250, *ECG102, *GE-2, *TR-05, *DS26, *SK3004, *HF6M
	2SB50	2N324, 2N359, 2N417, 2N522, 2N523, 2N599, 2N655, 2N655*, 2N827, 2N1282, 2N1309, 2N1316, 2N1379, 2N1471, 2N2048, 2N2635, MA1703, MA1706, *HF6M, *SK3003, *DS26, *TR-05, *GE-2, *ECG102, *HEP251, *AA1
	2SB51	2N412, 2N43A, 2N43A*, 2N381, 2N414B, 2N414C, 2N525, 2N525A, 2N526, 2N586, 2N650, 2N653, 2N1191, 2N1348, 2N1350, 2N1351, 2N1414, 2N1447, 2N1448, 2N1452, 2N1478, 2N1495, 2N2100, 2N2375, 2N2382, SF. T222, *AA1, *HEP250, *ECG102, *GE-2, *TR-05, *DS-26, *SK3003, *JR15
	2SB52	2N382, 2N383, 2N397, 2N461, 2N508A, 2N527, 2N527A, 2N597, 2N651, 2N652, 2N652A, 2N654,

TRANSISTOR SUBSTITUTES

2SB229—2SB400

To Replace	Substitute This Type
-2SB229	2SB340,2SB341,*HEP625,*ECG121,*GE-2,*AT20M,*DS503
-2SB230	2SB341,*DS503,*PT40,*SK3009,*GE-3,*ECG104,*HEP625,*AA4
2SB231	2N1046,2N1046B,*AA4,*HEP644,*ECG127,*GE-25,*SK3009,*PT150,*DS503
2SB235	*DS501,*PT515,*SK3012,*GE-4,*ECG105,*HEP233,*AA5
2SB236	2SB235,2SB332,*AA5,*HEP233,*ECG105,*GE-4,*SK3012,*PT515,*DS501
2SB237	*DS501,*PT515,*SK3012,*GE-4,*ECG105,*HEP231,*AA5
2SB257	2N2953,2SB186,2SB188,SF.T308,*DS26,*SK3004,*JR15,*HEP640,*GE-2,*ECG102,*AA1
2SB258	*AA5,*ECG105,*GE-4,*PT501,*SK3012,*DS501
2SB259	2N2911,*SK3012,*PT515,*GE-2,*HEP254,*HEP233
2SB260	*HEP231,*AA5,*ECG105,*GE-4,*PT515,*SK3012,*DS501
2SB265	2N383,2N527A,2N652,2N654,2N1008A,2N1188,2N1190,2N1193,2N1449,2N1926,2N1997,*DS26,*SK3004,*JR15,*TR-05,*GE-2,*ECG102A,*AA1,*HEP632
-2SB274	2N2293,*HEP232,*ECG127,*GE-25,*SK3034,*DS-503,*HO300
-2SB275	2N2293,*HO300,*DS503,*SK3035,*GE-25,*ECG127,*HEP644
-2SB276	*HEP644,*ECG127,*GE-25,*HO300
2SB282	2N561,2SB128,2SB129,2SB205,ASZ115,*GE-2,*TR-01,*AT20M,*SK3009,*DS-26,*ECG121
2SB283	ASZ16,ASZ18,*KR6500,*KR6501,*ECG121,*TR-01,*HEP232
2SB284	2N561,2SB129,2SB285,ASZ15,ASZ17,*KR6500,*HEP232,*TR-01,*GE-16,*ECG121
2SB285	2N561,2SB129,ASZ15,*ECG121,*TR-01
2SB250	2N397,2N417,2N1307,2N1309,2N1316,2N1317,2N1355,2N1356,2N1357,2SB186,2SB188,*ECG100,*HEP254
2SB291	2N382,2N383,2N397,2N415,2N415A,2N416,2N527,2N527A,2N597,2N651,2N652,2N652A,2N654,2N654A,2N1008A,2N1189,2N1316,2N1354,2N1355,2N1356,2N1357,2N1375,2N1377,2N1449,*SF.T307,MA882,*KR6500,*KR6501,*ECG121,*TR-01,*HEP232
2SB292	2N382,2N383,2N397,2N415,2N415A,2N416,2N527,2N527A,2N597,2N651,2N651A,2N652,2N652A,2N654,2N654A,2N1008A,2N1189,2N1192,2N1349,2N1354,*DS-25,2N1356,2N1357,2N1375,2N1377,2N1449,2N1997,2SB291,MA887,SF.T223,*SK3004,*GE-2,*TR-05,*ECG100,*HEP250
2SB292A	2N1008B,2N1187,2N1188,2N1926,MA882,*HEP629,*ECG100,*TR-14
2SB296	*HEP644,*ECG127,*GE-25,*SK3035
-2SB302	2N1382,*2S449,2SB73,2SB186,2SB187,2SB188,2SB257,2SB303,2SB364,2SB400,AC160-GRN,*AF15,SF.T307,SF.T308,SF.T323,SF.T337,*HEP254,*ECG102A,*TR-05,*GE-2,*AT20M,*DS26,*SK3004
2SB303	2SB186,2SB187,2SB188,*SK3004,*DS-26,*AT20M,*GE-2,*TR-05,*HEP632
2SB306	2N2043,2N2043A
2SB309	2N1046,2N2292,*ECG127,*HEP232,*GE-25
2SB309A	2N1905,2N2292,2SB309,2SB410
2SB324	*HEP254,*ECG158,*GE-2,*AT20M,*DS-26,*SK3004
2SB331	2SB332,*ECG105,*GE-4,*SK3012,*DS501,*PT501,*AA5
2SB332	2SB333,*AA5,*PT501,*DS501,*SK3012,*GE-4,*ECG105,*HEP233
2SB333	2N1099,*HEP233,*ECG105,*GE-4,*SK3012,*DS501,*PT501,*AA5
2SB334	2N1100,2N1412,*AA5,*PT501,*DS501,*SK3012,*GE-4,*ECG105,*HEP233
2SB335	2SB186,2SB187,2SB188,2SB336,*HEP254,*TR-05,*DS-26
2SB336	2SB186,2SB187,2SB188,*TR-05,*HEP254,*ECG102A
2SB337	2SB338,NKT402,NKT404,*ECG121,*HEP232,*GE-3,*DS503,*SK3009,*PT40
2SB338	NKT402,NKT403,NKT404,*SK3009,*PT40,*DS503,*TR-01,*GE-3,*ECG121,*HEP232
2SB339	*HEP625,*ECG121,*GE-3,*DS503,*PT40
2SB340	2SB341,*PT40,*DS503,*GE-3,*ECG121,*HEP625
2SB341	*HEP625,*ECG127,*GE-25,*DS503,*HO300,*SK3034
2SB342	2N2293,2SB343,2SB375,*ECG127,*GE-25,*HO300,*HEP644
2SB343	2SB375,*HEP644,*HO300,*GE-25,*ECG127
2SB345	2N2429,2SB346,2SB347,2SB348,2SB439,2SB440,*ECG102A,*GE-2,*TR-05,*AT20M,*SK3004,*DS26,*HEP632
2SB346	2SB348,*HEP633,*DS-26,*SK3004,*AT20M,*GE-2,*ECG102A
2SB347	2N2429,2SB346,2SB347,2SB348,2SB439,2SB440,*SK3004,*GE-2,*TR-05,*ECG102,*HEP251
2SB348	2SB346,*HEP251,*ECG102A,*GE-2
2SB361	2SB362,*HEP232,*ECG127,*DS503,*HO300,*GE-25,*TR-01
2SB362	*GE-25,*HO300,*ECG127,*HEP232
2SB364	*HEP254,*ECG158,*AT20M,*DS-26,*GE-2
2SB365	2SB364,*GE-2,*ECG158,*HEP254
2SB367	*ECG131,*HEP642,*GE-30,*DS503,*PT40
2SB368	*HEP642,*DS-503,*GE-30,*ECG131
2SB370	2SB370A,NKT218,*HEP630,*SK3004,*DS-26,*AT20M,*ECG102A,*GE-2
2SB370A	*GE-2,*ECG102A,*DS26,*SK3004,*HEP630
2SB371	2N2706,*TR-05,*ECG102A,*HEP632
2SB375	*HEP234,*PT40,*DS-503,*GE-25,*ECG127
2SB376	2SB156A,NKT221,NKT228,*ECG102A,*GE-2,*DS26,*SK3004,*HEP254
2SB377	2N598,2N599,2N1997,2N1998,2N2374,*ECG102A,*HEP254,*DS26,*AT20M,*GE-2
2SB378	2N60,2N188A,2N188A,2N241A,2N320,2N361,2N396A,2N414,2N414C,2N653,2N1204A,2N1313,2N1383,2N1415,2N1478,2N1681,2N2375,2N3883,2SB185,MM380,SF.T222,*GE-2,*TR-05,*AT20M,*HEP254,*ECG100
2SB379	2N397,2N508,2N508A,2N598,2N654A,2N655,2N1008,2N1175,2N1175A,2N1282,2N1316,2N1317,2N1354,2N1355,2N1356,2N1357,2N1381,2N1382,2N1705,2N1706,2N1707,2N1998,2SB186,2SB188,SF.T223,*GE-2,*TR-05,*SK3004,*DS26,*AT20M,*ECG102,*HEP250
2SB380	2N1379,2N1999,MA1703,MA1704,*GE-2,*ECG102,*SK3004,*DS26,*HEP251
2SB381	2N1478,2N1495,2N2100,2N2375,2N2382,*GE-2,*ECG102A,*HEP253,*DS26,*SK3004,*AT20M
2SB382	2N598,2N1997,2N1998,2N2000,*AT20M,*SK3004,*DS26,*HEP254,*ECG102A,*GE-2
2SB383	2N1478,2N1997,2N1998,2N2000,*GE-2,*ECG102A,*HEP254,*DS-26,*SK3004,*AT20M
2SB390	2N2292,*HO300,*GE-25,*ECG127,*HEP232
2SB391	2N1905,*HEP230,*ECG127,*GE-3,*TR-01,*HO300,*DS-520,*SK3009
-2SB392	2N397,2N417,2N598,2N599,2N655,2N655A,2N1909,SF.T1307,2N1309,2N1316,2N1317,2N1354,2N1355,2N1356,2N1357,2N1376,2N1381,2N1998,2N2375,*DS26,*AT20M,*TR-05,*GE-2,*ECG100,*HEP253
-2SB393	2N394,2N395,2N396A,2N404A,2N414,2N414A,2N414B,2N414C,2N525,2N525A,2N526,2N526A,2N650,2N650A,2N653,2N1171,2N1192,2N1351,2N1352,2N1348,2N1350,2N1351,2N1352,2N1373,2N1449,2N1926,2N1997,*DS26
-2SB394	2N397,2N417,2N527A,2N598,2N652,2N652A,2N654,2N655,2N1008A,2N1093,2N1189,2N1190,2N1193,2N1316,2N1354,2N1355,2N1356,2N1357,2N1377,2N1449,2N1997,2N1998,*SF.T223,*DS26,*AT20M,*TR-05,*GE-2,*ECG100,*HEP253
-2SB395	2N599,2N655A,2N1185,2N1999,2N2374,2N3427,2N3428,*HEP253,*ECG100,*GE-2,*AT20M,*DS26
-2SB396	2N1189,2N383,2N526A,2N527,2N527A,2N597,2N651,2N651A,2N1008A,2N1008B,2N1124,2N1187,2N1189,2N1192,2N1348,2N1349,2N1350,2N1351,2N1352,2N1377,2N1449,2N1925,2N1926,2SB403,MA882,MA887,*DS26,*AT20M,*GE-2,*ECG100,*HEP253
2SB400	2SB254,*ECG102A,*GE-2,*TR-05,*SK3004

Q1 To Replace	Substitute This Type
2SB401	2N381, 2N525, 2N525A, 2N526, 2N1924, 2SB402, SF. T243, *ECG100, *HEP631
2SB402	2N1924, SF. T243, *HEP629, *ECG100
2SB403	2N382, 2N383, 2N597, 2N1926, 2N1997, *ECG100, *HEP631
2SB405	*HEP238, *ECG158, *SK3004, *AT20M, *DS-26, *GE-2
2SB407	*ECG104, *HEP230, *SK3009, *PT40, *GE-3, *TR-01
2SB410	*ECG127, *HEP644
2SB411	2SB410, CTPL544, CTPL545, *HEP234, *ECG127
2SB413	*ECG104, *DS-503, *SK3014, *GE-16
2SB414	*GE-16, *SK3014, *DS-56, *ECG104, *HEP642
2SB415	*HEP238, *ECG158, *DS-26, *SK3004, *AT20M, *GE-2
-2SB416	2N3964, 2N397, 2N415, 2N415A, 2N416, 2N654, 2N1008A, 2N1124, 2N1125, 2N1192, 2N1305, 2N1307, 2N1349, 2N1352, 2N1354, 2N1355, 2N1356, 2N1357, 2N1374, 2N1376, 2N1381, 2N1382, 2N1382*, 2N1383, 2SB403, SF. T223, *GE-2, *TR-05, *AT20M, *DS-26, *ECG100, *HEP253
-2SB417	2N382, 2N383, 2N526A, 2N527, 2N527A, 2N597, 2N651, 2N651A, 2N1008B, 2N1187, 2N1188, 2N1189, 2N1375, 2N1377, 2N1449, 2N1925, 2N1926, MA882, MA887, *HEP253, *ECG100, *DS26, *AT20M, *GE-2
-2SB418	
2SB419	
2SB421	*ECG102A
2SB424	2N553, 2N665, 2N1011, 2SB129, *HEP232, *ECG121, *GE-16, *TR-01, *SK3034, *PT40, *DS-503
2SB425	2N297A, 2N301A, 2N553, 2N665, 2N1011, 2N2836, 2SB84, 2SB129, 2SB283, 2SB424, COT1311, COT1312, *DS-503, *PT40, *SK3034, *TR-01, *GE-16, *ECG121, *HEP232
2SB426	2N301, 2N351A, 2N376A, 2N400, 2N554, 2N663, 2N669, 2N1227, 2SB127, 4D150, ADY27, COT1310, 2N261319, DG7, *SK3009, *PT40, *DS-520, *GE-16, *TR-01, *ECG121, *HEP230
2SB439	2SB440, *GE-2, *TR-05, *ECG102A, *HEP250, *SK3004, *DS-26
2SB440	2SB439, *GE-2, *TR-05, *ECG102A, *SK3004, *DS-26, *AT20M, *HEP250
2SB443	2N2613*, 2N2953, 2SB444, *DS-26, *SK3004, *ECG102A, *TR-05, *GE-2
2SB444	2N2613*, *ECG126
2SB448	*GE-3, *ECG131, *SK3034, *HEP642
2SB449	*HEP230, *SK3009, *DS-520, *ECG121, *GE-3, *TR-01
2SB459	2N2613*, 2SB346, 2SB348, 2SB460, *SK3004, *DS-26, *GE-2, *ECG102, *HEP251
2SB460	*HEP235, *GE-25, *ECG127, *SK3035, *HC300
2SB468A	*ECG127, *GE-25
2SB471	2SB472, KR6501, *HEP232, *ECG121, *GE-16, *DS-520, *SK3009
2SB472	KR6503, *ECG121, *HEP232
2SB473	*HEP642, *ECG131, *GE-16, *DS-503
2SB474	*SK3009, *GE-30, *ECG131, *HEP643
2SB475	2N2731, 2SB364, 2SB415, NKT211, NKT221, NKT228, *SK3004, *HEP254, *ECG158, *GE-2
2SB481	*HEP642, *ECG131, *GE-30
2SB492	*GE-2, *ECG158, *HEP238
2SB496	*ECG102A, *HEP254, *GE-2, *SK3004
2SC113	2N377, 2N439, 2N439A, 2N576, 2N634A, 2N635, 2N1090, 2N1302, 2N1995, 2N1996, 2SC14, 2SC89, 2SC90, 2SC91, 2SC129, AS Y29, *HEP641, *ECG101, *SK3011, *NR5, *US-72, *GE-7, *TR-08
2SC114	2N635, 2SC91, *TR-08, *GE-6, *DS-72, *NR10, *ECG101, *HEP641
-2SC115-0	
-2SC115-1	2N5106, BS Y52, *ECG123A
-2SC115-2	2N3499, BS Y56, BS Y88, *ECG123A
-2SC115-3	2N3501, BS Y56, *ECG123A
2SC121	HST9201, HST9205, HST9206, HST9801, HST9802, *HEP247, *ECG130
2SC122	*ECG128, *TR-25
2SC123	2SC24, *TR-25, *ECG128
2SC124	*ECG128, *TR-25
2SC130	2N3326, PT3722, *HEP53, *TR-22, *GE-17, *ECG128, *EN10
2SC131	2N217, 2N299, 2N5188, 2N549, *EN10, *ECG128, *GE-17, *TR-22, *HEP53
2SC132	2N1837A, 2N2218, 2N2218A, 2N2224, 2N2537, 2N2846, 2N2848, 2N2951, 2N3015, 2N3299, 2N3326, 2N3678, 2N4402, 2N4960, 2N4961, 2SC594, 6 Y551, BS Y53, TN53, *HEP53, *TR-22, *GE-17, *ECG128, *EN10
2SC133	40472, 40478, *HEP50, *ECG123A, *EN10, *GE-17, *TR-22
2SC134	OC139, *TR-08, *GE-8, *SK3011, *DS-72, *ECG103A, *HEP641
2SC135	2SC36, OC141, *HEP641, *ECG103A, *US-72, *SK3011, *GE-8, *AA2
2SC136	OC141, *AA2, *GE-8, *SK3011, *DS-72, *ECG101, *HEP641
2SC141	2N4071, 2SC518, 1B2T2, BDY25B, KSP1176, SDT7604, SDT7605, *ECG163
-2SC142	2N4071, BDY25C, KSP1176, SDT7604, SDT7605, *PN66
2SC142A	1B2T2, BDY25B, HST7201, HST7202, KSP1141, KSP1142, SDT7201, SDT7202, SDT7612
2SC143	BDY24A, HST9803, HST9804, KSP1172, SDT7609
2SC144	BDY24A, HST9801, KSP1171, SDT7607, *NA20, *DS-66
2SC149	2N1893A, 2N3020, 2N3500, BS Y55, *ECG128, *GE-20, *TR-25, *SN80
2SC158A	2N1342, 2SC154A, 2SC154B, 2SC589, *ECG154, *SK3040, *HEP172
2SC159	*ECG128, *TR-25
-2SC162	*GE-17, *ECG123A, *HEP50, *EN10, *DS-81
2SC164	2SC69, 2SC154, *ECG154, *HEP173
2SC165	2SC154A, 2SC154B, 2SC589, MM3001, MM3002, *HEP172, *ECG154, *SN80, *GE-20
2SC166	2N1893A, 2N3500, 2N4925, 2SC154C, MM2259, *ECG154, *HEP172
2SC167	2N2501, 2N3013, 2N3014, 2SC639, 2SC764, *HEP53, *ECG123A, *GE-12, *TR-23, *PN66
2SC168	2N4916, 2N2539, 2N3643, 2N3947, 2N4951, 2N4962, 2N5368, 2SC639, *PN66, *TR-23, *GE-12, *ECG123A, *HEP53
2SC169	*ECG128, *TR-25
2SC170	2SC154B, 2SC470-6, MM2259, MM3009, *ECG154, *HEP172
2SC171	2N388, 2N635A, 2N636A, 2N1114, 2N1306, 2N1308, 2SC72, *HEP641, *ECG101
2SC172	2N635A, 2N636A, 2N1114, 2N1306, 2N1308, *ECG101, *HEP641
2SC173	2N797, 2SC98, 2SC99, *HEP641, *ECG101, *TR-08, *GE-6, *NR10, *DS-72, *SK3011, *AA2
2SC174	*SK3018, *DS-81, *EN10, *GE-17, *ECG108, *HEP53
2SC175	2SC98, 2SD75, *HEP641, *ECG101, *GE-7, *TR-08, *NR10, *DS-72, *SK3011, *AA2
2SC176	2SC98, 2SD75, *AA2, *SK3011, *DS-72, *NR10, *TR-08, *GE-7, *ECG101, *HEP641
2SC177	2SC98, 2SD75, *HEP641, *ECG101, *GE-7, *TR-08, *NR10, *DS-72, *SK3011, *AA2
2SC178	2N797, 2SC98, 2SC99, *ECG101, *AA2, *SK3011, *DS-72, *NR10, *TR-08, *GE-6, *HEP641
2SC180	2N917A, 2N3337, 2N3338, 2N3339, 2N3600, 2N4134, 2N4135, 40413, MT1001A, *ECG109, *EN10, *DS-74, *SK3019, *GE-17, *TR-22
2SC189	2N356A, 2N357A, 2N358A, 2N439, 2N439A, 2N1090, 2SC90, 2SC91, *GE-7, *ECG101, *HEP641, *NR5, *DS-72, *SK3011, *AA2
2SC190	2N37A, 2N38A, 2N439, 2N439A, 2N1090, 2SC91, *SK3011, *DS-72, *HEP641, *ECG101
2SC191	2N358A, *ECG101, *HEP641
2SC192	
2SC193	2SC94
2SC194	

To Replace	Substitute This Type
25C97	2N2848, 2N3015, 2N3299, 2N3326, 2N3722, 2N3725, 2N3725A, 2N4960, 2N4961, 2N5262, *ECG128, *SN80, *GE-20, *TR-25
25C98	*ECG108, *GE-17, *EN10, *HEP50
25C99	*HEP50, *GE-17, *ECG108
25C101	*PN66, *HEP703, *GE-12, *ECG124
25C102	*ECG105
25C103A	2N916, 2N916A, 2N957, 2N2331, 2N2369, 2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3862, 2N4123, 2N4264, 2N4873, 2N5144, 25C67, 25C68, 25C104A, 25C105, 25C310, 25C323, 25C400, 25C601A, 25C639, MP5613, MP5639, MP56513, MP5A20-WHT, MP5H10, *PET1001, *PET3002, *GE-17, *HEP50, *EN10, *DS-74, *SK3019, *ECG123A
25C104A	2N916, 2N916A, 2N957, 2N2331, 2N2501, 2N3013, 2N3014, 2N4123, 2N4264, 2N5144, 2N5824, 25C67, 25C68, 25C105, 25C318, 25C323, 25C400, 25C601N, 25C639, 25C754, *TR-24, *GE-17, *HEP50, *EN10, *ECG123A
25C105	2N916, 2N916A, 2N957, 2N2331, 2N2501, 2N3013, 2N3014, 2N4123, 2N4264, 2N5144, 25C67, 25C68, 25C104A, 25C318, 25C323, 25C400, 25C601N, 25C639, 25C754, *ECG123A, *EN10, *HEP719, *GE-17, *TR-24
25C106	*GE-11, *HEP53001, *EN10, *SK3048, *C5-81
25C107	25C106, *HEP53001
25C108	*SN80, *GE-20, *ECG128
25C109	2N1958A, 2N2217, 2N2477, 2N2618, 2N3122, 2N3252, 2N3253, 2N3468, 2N3554, 2N3724, 2N3734, 2N3736, 2N5188, 25C97, 85X48, 85X49, M3375, *ECG128, *GE-20, *SN80, *HEP53
-25C112	2N2218, 2N2537, 2N2848, 2N4046, 2N5145, *ECG128
-25C113	2N2218, 2N2537, 2N2848, 2N4046, 2N4960, 2N5145, *ECG128
-25C115-1	*SK0018
-25C115-2	2N3300, 2N5106, 85Y52, *SK0018
-25C115-3	2N3499, 85Y88, *SK0018
25C116	2N656, 2N1613A, 2N2218, 2N2218A, 2N2224, 2N2846, 2N2951, 2N3015, 2N3299, 2N3326, 2N3678, 25C32, 25C594, 85Y51, 85Y53, *SK3048, *TR-25, *GE-20, *HEP75, *ECG128
25C117	*SK3024, *GE-18, *ECG128
-25C118	25C117, *ECG128, *GE-18, *SK3024
-25C119	*TR-24, *SK3024, *GE-18, *ECG128
25C120	2N706C, 2N708, 2N742, 2N743A, 2N744A, 2N783, 2N834, 2N914, 2N2521, 2N2952, 2N3210, 2N3605A, 2N3606A, 2N3973, 2N3975, 2N4137, 2N4275, 2N4420, 2N4422, 25C30, 25C121, 25C124, 25C124, 25C321, 25C427, 25C601, 25C689, 8FY39-1, 8ET708, 8ET914, 8ET3013, 8ET3014, 8ET3046, 8KT218, *MM5006, *MPSA20-RED, 8T1584, 8T1587, *ECG128, *GE-17, *TR-24, *EN10, *HEP53
25C121	2N706C, 2N708, 2N742, 2N743A, 2N744A, 2N783, 2N834, 2N914, 2N2521, 2N2952, 2N3210, 2N3605A, 2N3606A, 2N3973, 2N3975, 2N4137, 2N4275, 2N4420, 2N4422, 25C30, 25C121, 25C124, 25C124, 25C321, 25C427, 25C601, 25C689, 8FY39-1, 8ET708, 8ET914, 8ET3013, 8ET3014, 8ET3046, 8KT218, *MM5006, *MPSA20-RED, 8T1584, 8T1587, *HEP53, *EN10, *TR-22, *GE-17, *ECG128
25C122	2N916, 2N916A, 2N3643, 2N3903, 2N3974, 2N3976, 2N4227, 2N4873, 2N4962, 2N5824, 2N5825, 25C68, 25C123, 25C318, 25C323, 25C639, 25C764, 25C852, 25C943, 8FY39-2, *MPS0513, *MPSA20-GRN, *MPSA20-WHT, *ECG128, *GE-17, *EN10, *HEP53
25C123	2N2522, 2N3242A, 2N3302, 2N3643, 2N3904, 2N3947, 2N4141, 2N4995, 2N5028, 2N5825, 2N5826, 25C367, 25C594, 8C1074, 8C1714, 8C5Y54, 8FY39-2, FT3643, 8ET222, *MM2484, *MM3904, *MPS3694, *MPS3827, *MPS5656, *MPSA20-BLU, *MPSA20-GRN, *MPSA20-YEL, *PET1002, *HEP53, *EN10, *GE-17, *ECG128
25C124	2N706C, 2N708, 2N742, 2N743A, 2N744A, 2N783, 2N834, 2N914, 2N2521, 2N2952, 2N3210, 2N3605A, 2N3606A, 2N3973, 2N3975, 2N4137, 2N4275, 2N4420, 2N4422, 25C30, 25C121, 25C124, 25C124, 25C321, 25C427, 25C601, 25C689, 8FY39-1, 8ET708, 8ET914, 8ET3013, 8ET3014, 8ET3046, 8KT218, *MM5006, *MPSA20-RED, 8T1584, 8T1587, *ECG128, *GE-17, *EN10, *HEP53
-25C125	2N4924, 25C353, MM2258, *HEP637, *ECG160
-25C126	2N1893A, 2N4925, MM2260
25C128	2N357A, 2N358A, 2N439, 2N439A, 2N587, 2N1000, 85Y28, *TR-08, *HEP641, *ECG101
25C129	2N357A, 2N358A, 2N439, 2N439A, 2N634A, 2N1000, 2N1090, 2N1995, 25C90, 25C91, 85Y29, *ECG101, *HEP641, *TR-08
25C138	*SN80, *GE-20, *TR-21, *ECG123A
25C138A	*ECG123A, *TR-21, *GE-20, *SN80
25C139	25C138A, 25C596, *SN80, *GE-20, *TR-21, *ECG123A
-25C141	2N2318, 2N2656, 2N3011, 8T2760, *DS-25, *TR-21
-25C142	2N706C, 2N708, 2N743A, 2N744A, 2N914, 2N2318, 2N2710, 2N3011, 2N3210, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3648, 25C321, 8ET708, 8ET914, 8ET3013, 8ET3014, 8ET3046, *TR-21
-25C143	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2221, 2N2481, 2N2501, 2N2539, 2N2710, 2N2845, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N3946, 2N4962, 2N5144, 25C67, 25C68, 25C321, 25C639, 25C764, 85W82, FT3641, FT3642, 8ET708, 8ET914, 8ET2221, 8ET2369, 8ET3013, 8ET3014, 8ET3646, 8G1-3641, MM3903
-25C144	2N708A, 2N915, 2N2321, 2N2221A, 2N2539, 2N2845, 2N3115, 2N3301, 2N3946, 2N4962, 2N5144, 2N5581, 85W84, FT3641, FT3642, 8ET2221, 8ET2221A, 8G1-3641, MM3903
-25C144A	2N915, 2N2221, 2N2221A, 2N2539, 2N2845, 2N3115, 2N3301, 2N3946, 2N4962, 2N5144, 2N5581, 85W84, FT3641, FT3642, 8ET2221, 8ET2221A, 8G1-3641, MM3903
-25C147A	2N2320, 2N3678, 2N3724A
-25C147B	2N2320, 2N3678, 2N3724, 2N3725, 2N3725A, 2N4960, 2N4961
25C150	85Y18, *EN10, *ECG123A, *HEP53, *TR-25, *GE-17, *DS-74, *EN10, *SK3018
25C151	2N1298, 2N3015, 2N3299, 2N3326, 25C32, 25C152, 25C594, 85Y63, *ECG123A, *GE-17, *EN10
25C152	2N1837A, 2N2224, 2N2951, 2N3015, 2N3299, 2N3326, 25C594, *ECG128
-25C153	
25C154	25C69, 25C154A, *ECG154, *HEP713
25C154A	25C154
25C154B	*ECG154
25C154C	*ECG154, *HEP706
25C161	180T2, 80Y238, 85T9801, 85T9802, *TR-26
-25C162	2N2320, 2N2330, 2N4046, 2N5145, 8E8041, 8E8042, *GE-20, *SN80
-25C163	2N2218, 2N2218A, 2N2537, 2N2846, 2N2848, 2N2958, 2N3015, 2N3299, 2N3326, 2N3678, 2N4046, 2N4960, 2N5145, *GE-17, *ECG128
-25C164	2N2218, 2N2218A, 2N2537, 2N2846, 2N2848, 2N2958, 2N3015, 2N3299, 2N3326, 2N3678, 2N4047, 2N4960, 2N4961
-25C165	
-25C166	2N760, 2N916, 2N2331, 2N2432A, 2N4074, 2N4138, 2N5825, 25C68, 25C400, 25C454, 25C458, 25C459, 25C639, 8C173C, 8FY39-2, 8N916, 8ET4001, 8E4001, *ECG123A, *GE-17
-25C167	2N718, 2N718A, 2N731, 2N736A, 2N915, 2N929A, 2N2315, 2N2317, 2N2396, 2N3077, 2N3301, 2N3903, 2N3946, 2N3974, 2N3976, 2N4227, 2N4944, 2N4945, 2N4962, 2N4963, 2N4966, 2N5027, 2N5824, 25C318, 25C838, 25C839, 8C110, 8N915, 8ET929, MM3903, 8T1599, *ECG123A
25C179	25C180, *DS66, *SK3020, *SN80, *TR-08, *GE-20, *ECG103A, *HEP641
25C181	25C181, *HEP641, *ECG103A, *GE-8, *SK3011, *DS-7
25C181	*GE-8, *ECG103A, *HEP641
25C182	25C269, MM3701A, *HEP56, *ECG123A, *GE-20, *TR-21, *DS-66, *SK3020, *SK3020, *SN80
25C183	25C182, 25C185, 25C269, 25C269, 8A373011, *ECG108, *TR-22, *GE-20, *SK3020, *SN80, *DS-81,

Q1 25C	To Replace	Substitute This Type	
25C319		*EGG123A, *SN80, *GE-20, *TR-21	
25C320		*TR-21, *GE-20, *SN80, *EGG123A, *HEP75	
25C321		2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2221, 2N2481, 2N2501, 2N2539, 2N2710, 2N2845, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3310, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N3946, 2N4962, 2N5144, 25C67, 25C68, 25C69, 25C73, 25C74, 25C93, 25C94, 25C95, 25C96, 25C97, 25C98, 25C99, 25C100, 25C101, 25C102, 25C103, 25C104, 25C105, 25C106, 25C107, 25C108, 25C109, 25C110, 25C111, 25C112, 25C113, 25C114, 25C115, 25C116, 25C117, 25C118, 25C119, 25C120, 25C121, 25C122, 25C123, 25C124, 25C125, 25C126, 25C127, 25C128, 25C129, 25C130, 25C131, 25C132, 25C133, 25C134, 25C135, 25C136, 25C137, 25C138, 25C139, 25C140, 25C141, 25C142, 25C143, 25C144, 25C145, 25C146, 25C147, 25C148, 25C149, 25C150, 25C151, 25C152, 25C153, 25C154, 25C155, 25C156, 25C157, 25C158, 25C159, 25C160, 25C161, 25C162, 25C163, 25C164, 25C165, 25C166, 25C167, 25C168, 25C169, 25C170, 25C171, 25C172, 25C173, 25C174, 25C175, 25C176, 25C177, 25C178, 25C179, 25C180, 25C181, 25C182, 25C183, 25C184, 25C185, 25C186, 25C187, 25C188, 25C189, 25C190, 25C191, 25C192, 25C193, 25C194, 25C195, 25C196, 25C197, 25C198, 25C199, 25C200, 25C201, 25C202, 25C203, 25C204, 25C205, 25C206, 25C207, 25C208, 25C209, 25C210, 25C211, 25C212, 25C213, 25C214, 25C215, 25C216, 25C217, 25C218, 25C219, 25C220, 25C221, 25C222, 25C223, 25C224, 25C225, 25C226, 25C227, 25C228, 25C229, 25C230, 25C231, 25C232, 25C233, 25C234, 25C235, 25C236, 25C237, 25C238, 25C239, 25C240, 25C241, 25C242, 25C243, 25C244, 25C245, 25C246, 25C247, 25C248, 25C249, 25C250, 25C251, 25C252, 25C253, 25C254, 25C255, 25C256, 25C257, 25C258, 25C259, 25C260, 25C261, 25C262, 25C263, 25C264, 25C265, 25C266, 25C267, 25C268, 25C269, 25C270, 25C271, 25C272, 25C273, 25C274, 25C275, 25C276, 25C277, 25C278, 25C279, 25C280, 25C281, 25C282, 25C283, 25C284, 25C285, 25C286, 25C287, 25C288, 25C289, 25C290, 25C291, 25C292, 25C293, 25C294, 25C295, 25C296, 25C297, 25C298, 25C299, 25C300, 25C301, 25C302, 25C303, 25C304, 25C305, 25C306, 25C307, 25C308, 25C309, 25C310, 25C311, 25C312, 25C313, 25C314, 25C315, 25C316, 25C317, 25C318, 25C319, 25C320, 25C321, 25C322, 25C323, 25C324, 25C325, 25C326, 25C327, 25C328, 25C329, 25C330, 25C331, 25C332, 25C333, 25C334, 25C335, 25C336, 25C337, 25C338, 25C339, 25C340, 25C341, 25C342, 25C343, 25C344, 25C345, 25C346, 25C347, 25C348, 25C349, 25C350, 25C351, 25C352, 25C353, 25C354, 25C355, 25C356, 25C357, 25C358, 25C359, 25C360, 25C361, 25C362, 25C363, 25C364, 25C365, 25C366, 25C367, 25C368, 25C369, 25C370, 25C371, 25C372, 25C373, 25C374, 25C375, 25C376, 25C377, 25C378, 25C379, 25C380, 25C381, 25C382, 25C383, 25C384, 25C385, 25C386, 25C387, 25C388, 25C389, 25C390, 25C391, 25C392, 25C393, 25C394, 25C395, 25C396, 25C397, 25C398, 25C399, 25C400, 25C401, 25C402, 25C403, 25C404, 25C405, 25C406, 25C407, 25C408, 25C409, 25C410, 25C411, 25C412, 25C413, 25C414, 25C415, 25C416, 25C417, 25C418, 25C419, 25C420, 25C421, 25C422, 25C423, 25C424, 25C425, 25C426, 25C427, 25C428, 25C429, 25C430, 25C431, 25C432, 25C433, 25C434, 25C435, 25C436, 25C437, 25C438, 25C439, 25C440, 25C441, 25C442, 25C443, 25C444, 25C445, 25C446, 25C447, 25C448, 25C449, 25C450, 25C451, 25C452, 25C453, 25C454, 25C455, 25C456, 25C457, 25C458, 25C459, 25C460, 25C461, 25C462, 25C463, 25C464	

Q1 To Replace	Substitute This Type
2SC465	2N917, 2N918, 2N3570, 2N4253, 2SC464, 2SC466, 40414, MT1061, *ECG161, *HEP56, *SK3018, *EN10, *GE-17
2SC466	2N917, 2N918, 2N3570, 2N4253, 2SC464, 2SC465, 40414, MT1061, *GE-17, *EN10, *SK3018, *HEP56, *ECG123
2SC468	2N916, 2N916A, 2N2501, 2N2539, 2N3643, 2N3903, 2N4227, 2N4951, 2N4962, 2N5027, 2N5144, 2N3368, 2SC68, 2SC639, 2SC764, EN916, MM3903, MP56530, MP56531, *ECG123A
2SC469	40242, A419, A420, BF184, *EN10, *SK3018, *DS-81, *TR-22, *GE-17, *ECG108, *HEP56
2SC470-3	2N6994, 2N6998, 2N1613B, 2N1889, 2N1974, 2N2102A, 2N3107, 2N3498, 2N4924, 2SC49, 2SC353, 2SC470-4, 2SC590, 85Y55, 85Y87, MM2258, MM3008, SEE010
2SC470-4	2N6994, 2N6998, 2N1613B, 2N1893A, 2N2102A, 2N3500, 2N4925, 2SC49, 2SC470-5, 2SC590, 85Y55, MM2258, MM3008
2SC470-5	2N1893A, 2N3500, 2N4925, 2SC154C, 2SC470-6, MM2259, MM2260, MM3009
2SC470-6	2SC154C, MM2259, MM2260, MM3009
2SC475	2SC476, 2SC540, *ECG123A, *EN10, *GE-17, *TR-22
2SC476	2SC475, 2SC540, *TR-22, *GE-17, *EN10, *ECG123A
2SC477	*ECG108, *EN10, *GE-17, *TR-24, *HEP723
2SC478	*GE-17, *EN10, *SK3018, *DS-81, *ECG123A
2SC479	2N2218, 2N2537, 2N2848, 2N884, 2N3015, 2N3299, 2N3725A, 2N4960, 2N4961
2SC481	*HEP3001, *ECG128, *SK3048, *TR-26
2SC492	2N4070, 2SC520A, 2SD07, 2SD68, KSP1175, KSP1176, SOT7603, SOT7604
2SC493	2SC492, 2SC520A, KSP1175, SOT7602, SOT7603, *SK3027, *HEP247, *ECG130, *GE-14
2SC494	2SC521A, KSP1174, SOT7601, *HEP247, *GE-14, *ECG130, *SK3029, *EN10
2SC500	2N1574, 2N4925, *GE-18, *HEP713, *SK3040, *ECG154
2SC502	*ECG128, *SK3048, *HEP3001, *TR-26
2SC503	2N1574, 2N1711, 2N1711A, 2N2049, 2N2219A, 2N3053, *0635, 85Y54, *GE-20, *HEP53, *SN80, *ECG128
2SC504	2N1420A, 2N3053, 2SC503, *ECG128, *SN80, *HEP53, *GE-20
2SC515	MJ400, MJ2252, *GE-12, *PN66, *SK3021, *ECG124, *HEP240
2SC518	KSP1173, SOT7610, SOT7611
2SC520A	2N4070, KSP1175, SOT7603
2SC521A	2SC520A, KSP1175, SOT7602, SOT7603
2SC526	BF111, *HEP712, *ECG154, *GE-20, *SN80, *DS-72
-2SC527	2N7078, 2N7084, 2N744A, 2N784A, 2N914, 2N957, 2N2369A, 2N3009, 2N3013, 2N3014, 2N3210, 2N3605A, 2N3606A, 2N3646, 2N3688, 2N3689, 2N3690, 2N3693, 2N4123, 2N4137, 2N4275, 2N4418, 2N4420, 2N4422, 2N5029, 2SC67, 2SC321, 2SC427, 2SC536, 2SC544, 2SC562, 2SC635, 2N5601, 2SC601N, 2SC689, 85X38, EN708, EN914, EN2369A, EN3009, EN3013, EN3014, GET1708, GET1914, GET2369, GET3013, GET3014, GET3646, MP53646, MP53693, MP56512, PET1001, PET2001, PT2760, SE1001, SE2001, SE5001, SE5002, SE5003, SE5006, T1587, *TR-24
2SC528	2N3241A, 2N3414, 2N4124, 2N4265, 2N6000, *0398, TN80
2SC535	2N3862, 2N4873, PET3002, SE3005, *SK3018, *GE-17, *ECG107, *HEP56
2SC536	2N916, 2N916A, 2N957, 2N2501, 2N3013, 2N3014, 2N3903, 2N3946, 2N3974, 2N3976, 2N4123, 2N4227, 2N4400, 2N4951, 2N5027, 2N5144, 2N5368, 2SC67, 2SC68, 2SC318, 2SC468, 2SC601N, 2SC639, 2SC764, *EN16, MM3903, MP56530, MP56531, *SK3020, *DS-66, *TR-24, *GE-20, *ECG123A, *HEP56
2SC537	2N744, 2N2923, 2N4264, 2SC459, 2SC460, 2SC461, 85Y61, PT720, *SK3020, *DS-66, *EN10, *GE-17, *TR-24, *ECG123A, *HEP56
2SC538	2N3862, *TR-21, *GE-17, *SK3020, *EN10, *DS-66, *HEP54
2SC538A	*HEP738, *DS-66, *EN10, *SK3020, *GE-17, *TR-24, *ECG123A
2SC539	*SK3020, *EN10, *GE-17, *TR-21, *ECG123A, *HEP55
2SC540	*EN10, *GE-17, *TR-22, *ECG123A
2SC544	2N916, 2N916A, 2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3862, 2N4873, 2SC67, 2SC68, 2SC468, 2SC601N, 2SC639, 2SC764, EN916, *SK3018, *EN10, *DS-81, *GE-17, *ECG108
2SC545	2N744, 2N3959, 2N3960, 2N4264, 2N5200, 2N5201, PET3002, SE3005, *ECG107, *GE-11, *EN10, *SK3018, *HEP56
2SC546	2N4950, 2N4997, 2SC689, MT1060A
2SC562	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3210, 2N3605A, 2N3606A, 2N3646, 2N3688, 2N3689, 2N3690, 2N3862, 2N4137, 2N4275, 2N4418, 2N4420, 2N4422, 2N5029, 2SC67, 2SC321, 2SC427, 2SC468, 2SC544, 2SC563, 2SC601, 2SC601N, 2SC689, EN708, EN914, EN2369A, EN3009, EN3013, EN3014, GET1708, GET1914, GET2369, GET3013, GET3014, GET3646, MM2483, MP53646, SE5001, SE5002, SE5003, SE5006, T1587, *SK3018, *SN80, *GE-20, *HEP50, *ECG108
2SC563	2N2369A, 2N3862, 2N4873, 2SC601N, 2SC639, 2SC764, *ECG161, *HEP709, *GE-17, *EN10, *SK3018, *DS-81
2SC566	*ECG123A
2SC567	2N3600, MT1061A, *ECG161
2SC568	2N3600, 2N4252, 2SC567, *0295, *0413, *ECG108, *GE-17, *TR-22, *EN10
2SC581	*TR-21
2SC582	2SC515, 2SC685, MJ400, *GE-12, *SK3021, *PN66, *ECG124, *HEP240
2SC583	2SC600
2SC585	2N4347, 2SC42A, 2SD45, 8DY25A, KS02201, KSP1173, SOT7610, SOT7611
2SC586	2N2586, 2N3117, 2SC587A, A1578, 8C1078, 8C1718, 8C5Y9C, T1597, *ECG123A
2SC587	2N2586, 2N3117, 2SC587, A1578, 8C1078, 8C1718, 8C5Y9C, T1597, *ECG123A
2SC587A	2SC154A, 2SC154B, *ECG154
2SC589	2N1893A, 2N3500, 85Y55, MM2258, *ECG128, *TR-25
2SC590	
2SC591	
2SC593	
2SC594	2N2218, 2N2218A, 2N2537, 2N2846, 2N2848, 2N2951, 2N3015, 2N3299, 2N3326, 2N3678, 2N4047, 2N4960, 2N4961, *TR-21, *GE-20, *ECG128, *HEP53, *SN80
2SC595	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2319, 2N2319, 2N2481, 2N2501, 2N2710, 2N3011, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N4123, 2N4264, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, BSW82, GET708, GET1914, GET2369, GET3013, GET3014, GET3646, *SN80, *HEP56, *ECG123A, *GE-20, *TR-25
2SC596	2SC138A, 2SC139, *TR-21, *GE-20, *ECG123A, *SN80
2SC597	
2SC598	2SC585, 2SC600
2SC600	2SC585
2SC601	2N744A, 2N2710, 2N3511, 2N3648, 2SC601N, 2SC639, 2SC689, 2SC764, *EN10, *GE-17, *HEP56
2SC601N	2SC639, 2SC764
2SC602	2N917A, 2N3570, 2N3600, 2N4252, 2N4253, 2SC251, 2SC251A, 2SC252, 2SC253, *0295, *0413, MT1061A, *HEP56, *GE-17, *TR-22, *EN10
2SC605	2N4252, 2N4253, 2SC606, *0242, BF168, BF173, BFX60, MT1061A, *EN10, *TR-22, *GE-17, *HEP56, *ECG107
2SC606	2N4252, 2N4253, 2SC605, *0242, BF168, BF173, BFX60, MT1061A, *ECG107, *HEP56, *GE-17, *TR-22, *EN10
2SC608	2SC609, *ECG128

TRANSISTOR SUBSTITUTES

25C609—25C815

To Replace	Substitute This Type
25C609	25C608,*GE-17,*ECG128
25C611	2N917A,2N2865,2N3571,2N3572,2N3600,2N4252,2N4253,25C567,25C568,25C653,40295, 40413,MT1061A,*EN10,*HEP56,*GE-17,*ECG108
25C612	2N4259,40235,40236,40237,40238,40240,40472,40476,*ECG108,*GE-17,*EN10
25C614	2N3619,2N3623,2N3627,*ECG128,*HEP53001
25C615	*ECG128,*HEP53001
25C616	
25C617	
25C628	25C320
25C635	25C636
25C636	
25C637	25C638,*TR-25
25C638	
25C639	*HEP53
25C640	25C540,*HEP55,*GE-17,*ECG123A,*EN10
25C641	2N916,2N916A,2N3903,2N3974,2N3976,2N4227,2N4951,2N5144,2N5368,25C68,25C639, 25C76,*EN16,*HEP6531,*ECG108,*TR-24
25C645	2N916,25C68,25C454,25C458,25C459,25C639,BC173C,8F39-2,EN916,*ECG107,*GE-20, *HEP56,*SN80,*SK3018,*DS-74
25C649	*HEP53,*ECG108,*GE-17,*EN10
25C650	BC167,*SK3020,*GE-10,*ECG108,*HEP50
25C651	
25C652	*HEP75
25C653	2N372
25C654	*HEP53,*ECG123A
25C664	2N4070,25C492,25C520A,25C665,8170006-DRG,8170006-YEL,8170007-DRG,8170007-YEL, 80Y24C,KSP1175,SDT7603,*HEP704
25C665	2N4070,25C666,KSP1176,SDT7604
25C666	2N4071,80Y25C,KSP1176,SDT7604,SDT7605
25C667	2N709,2N709A,2N2475,2N2784,2N3633,2N3959,2N3960,2N4996,2N4997,2N5200,2N5201, ENT4,*MT1060A,SE3005
25C668	2N709,2N709A,2N475,2N2784,2N3010,2N4996,2N4997,25C546,25C667,25C674,EN744, M11748,MT1060A,*HEP56,*ECG108,*EN10,*SK3018,*GE-17
25C674	2N709,2N709A,2N2475,2N2784,2N3010,2N4996,2N4997,25C546,25C667,25C668,EN744, M11748,MT1060A,*HEP56,*SK3018
25C679	40318,40322,40328
25C680	25C680A,*HEP241,*GE-12
25C680A	25C680,*HEP241
25C681	H5T7203,H5T7204,H5T7205,SDT7203,SDT7204,SDT7205,*HEP707
25C681A	25C681,80Y26A,H5T7203,H5T7204,H5T7205,KSP1143,KSP1144,KSP1145,SDT7203,SDT7204, SDT7205,*HEP707
25C682	2N917A,2N3570,2N3571,2N3572,2N3600,2N4252,2N4253,25C251,25C251A,25C252,25C253, 25C602,25C683,40295,40413,MT1061A,*HEP56,*GE-20,*SK3018,*SN80,*ECG161
25C683	2N917A,2N3570,2N3571,2N3572,2N3600,2N4252,2N4253,25C251,25C251A,25C252,25C253, 25C602,25C682,40295,40413,MT1061A,*HEP56,*GE-11,*SK3018,*SN80,*ECG161
25C684	2N734,2N744A,2N2616,2N2710,2N2729,2N4137,2N4997,25C601,25C689,EN719,2N369A, M11941,MP56507,*MT1038,MT1038A,MT1039,MT1060,PE13001,SE3001,SE3002,7T587,*SK3019, *ECG108,*GE-17,*HEP56
25C685	*SK3021,*PN66,*GE-12,*ECG124
25C685A	MJ400,MJ2252,*ECG124,*GE-12,*SK3021,*HEP240
25C686	2N1893A,2N3923,25C154C,*ECG154,*HEP712
25C687	2N4347,25C42A,25C586,25D45,80Y25A,K502201,KSP1173,SDT7610,SDT7611,*HEP707, *ECG130
25C689	2N744A,2N2710,25C601,25C601A,25C639,25C764,*ECG123A
25C693	2N953,2N5370,2N5371,2N5372,2N5373,2N5374,2N5375,2N5376,BC129,BC167,BC1718,BCY598,BCY59C,MP56514, MP56515,MP56520,T1597,*GE-10,*HEP55,*ECG107,*SK3020,*DS-72
25C694	2N3032,2N3694,2N4954,2N5371,2N5376,2N5377,25C693,AL578,BC107,BC129,BC167,BC171A, BC1718,BCY59A,BCY59B,MP53694,MP56514,MP56520,MP56566,PET1002,SE1002,*SK3020, *ECG107,*GE-10,*HEP55
25C695	*HEG107,*HEP56
25C696	2N699A,2N699B,2N1889,2N2243,2N2243A,2N2891,2N3036,2N3107,2N5150,25C696A,*GE-17
25C696A	2N699A,2N699B,2N2243,2N2243A,2N3020,2N3036
25C697	25C697A
25C697A	
25C705	*ECG107,*HEP56
25C707	2N917A,2N2865,2N3571,2N3572,2N3600,2N4252,2N4253,25C567,25C568,25C611,25C653, 40235,40236,40237,40238,40240,40295,40413,MT1061A,*HEP56,*ECG107
25C708	2N2848,2N3725A,2N4960,2N4961,*HEP243,*ECG128,*GE-18,*HN100,*SK3027
25C708A	*SK3027,*HN100,*GE-18,*ECG128,*HEP243
25C715	2N916,2N916A,2N577,2N5011,2N5013,2N3014,2N3903,2N3946,2N3976,2N3976,2N4123, 2N4227,2N4400,2N4951,2N5027,2N5144,2N5368,25C67,25C68,25C318,25C668,25C536, 25C601N,25C639,25C764,EN916,MM3903,MP56530,MP56531,*HEP56,*ECG107,*SK3020,*DS-72, *GE-20,*TR-24
25C716	2N744,2N2923,2N4264,25C459,25C460,25C461,25C537,BSY61,PT720,*ECG107,*TR-24, *HEP56
25C717	MT1038,MT1038A,MT1039,MT1060,*ECG108,*GE-17,*HEP56,*SK3018
25C761	2N917A,2N918,2N957,2N5011,2N5013,2N3014,2N3903,2N3946,2N3976,2N3976,2N4123, 40239,8F232,MT1061A,MT1061,*HEG161,*HEP709
25C762	2N917,2N917A,2N918,2N3570,2N4253,2N5053,2N5054,25C251,25C251A,25C252,25C253, 25C602,25C761,40239,8F232,8F600,MT1061,MT1061A,7T556,7T557,*HEP709,*ECG161, *SK3018,*GE-20
25C764	25C639
25C772	2N709,2N709A,2N744,2N2318,2N2319,2N2475,2N4256,2N2784,2N3010,2N3011,2N3564, 2N3605,2N3606,2N3607,2N4264,2N4294,2N4419,2N4996,2N4997,2N5033,25C428, 25C546,25C546B,25C595,25C667,25C668,25C674,BC1738,EN744,EN3011,M11748,MP52926-RED, MT1060A,PT720,*HEP56,*ECG107,*GE-20,*TR-21,*SK3018
25C781	*ECG128,*HEP53001,*GE-20
25C799	
25C800	2N4252,2N4253,8F168,8F173,8F600,MT1061A,*ECG107,*HEP56
25C814	2N3242A,2N3509,2N3386,2N5816,2N5818,2N6000,2N6004,2N6010,8S83,7N60,7N80,*HEP53, *SK3020,*HEG123A
25C815	2N718,2N718A,2N7321,2N735,2N736,2N915,2N2221,2N2221A,2N315,2N2317,2N2390,2N2396, 2N2523,2N2533,2N2845,2N3115,2N3301,2N3903,2N3946,2N3974,2N3976,2N4140,2N4227, 2N4400,2N4951,2N4962,2N4963,2N5027,2N5368,2N5820,2N5820,2N584,*DS3029,GET2221, GET2221A,6F-3641,6F-3642,MM3903,MP56530,MP56531,T1599,7N54,*ECG123A,*SK3024,* HEP736,*GE-20

Q1 Q2 Q3	To Replace	Substitute This Type
	2SC823	
	2SC824	
	2SC830	2N4231, 2N4232, 2N5295, 40250, *GE-23, *SK3026, *HEP703
	2SC831	
	2SC838	2N915, 2N3301, 2N3903, 2N3946, 2N3974, 2N3976, 2N4227, 2N4962, 2N5027, 2SC318, 2SC839, MM3903, *SK3020, *HEP728, *GE-10, *TR-21, *ECG123A
	2SC839	2N915, 2N3301, 2N3903, 2N3946, 2N3974, 2N3976, 2N4227, 2N4962, 2N5027, 2SC318, 2SC838, *MM3903, *ECG123A, *TR-21, *GE-20, *HEP728, *SK3018
	2SC852	
	2SC853	2N718, 2N718A, 2N731, 2N735, 2N736, 2N2221, 2N2221A, 2N2390, 2N2396, 2N2523, 2N2539, 2N3115, 2N4962, 2N4963, 2N5581, 2N5820, 65W84, D33D29, TN54, *ECG123A
	2SC856	*ECG154, *HEP712
	2SC861	
	2SC862	
	2SC881	2N718, 2N718A, 2N731, 2N735, 2N736, 2N2221, 2N2221A, 2N2390, 2N2396, 2N2523, 2N2539, 2N3115, 2N4962, 2N4963, 2N5581, 2N5820, 65W84, D33D29, TN54, *HEP713, *ECG128, *TR-21, *GE-10, *SK3020
	2SC890	*HEP75
	2SC891	
	2SC892	
	2SC896	2N3903, 2N4400, 2N5368, 2N5450, 2N5581, 2N5814, 2N5820, MM3903, MPS3705, MPS6530, MPS6531, MP56565, TI599, *ECG123A, *HEP713
	2SC899	2N3708-DRG, 2N3708-YEL, 2N3710, 2N4074, 2N5825, 2SC367, 2SC400, BC107A, BC108A, BC173C, BFY39-2, GI-3710, MPS3710, PET4001, *HEP729, *ECG123A
	2SC900	2N3708-BLU, 2N3708-GRN, 2N3711, 2N4286, 2N4287, 2SC316, 2SC587, 2SC587A, A1578, A322, BC107, BC107B, BC108, BC108B, BC109C, PC122, BC171B, BC172B, BCY58B, BCY58C, BCY59B, BCY59C, BFY39-3, GI-3566, GI-3711, MPS3711, PET4002
	2SC913	2N708, 2N717, 2N730, 2N742, 2N743A, 2N744A, 2N758, 2N758A, 2N759B, 2N914, 2N2220, 2N2312, 2N2314, 2N2352, 2N2352A, 2N2353, 2N2353A, 2N2395, 2N2521, 2N2710, 2N3210, 2N3261, 2N3510, 2N3511, 2N3648, 2N3973, 2N3975, 40405, 85Y93, MP56532, *HEP53, *ECG123A
	2SC914	2N708, 2N717, 2N730, 2N742, 2N743A, 2N744A, 2N758, 2N758A, 2N759B, 2N914, 2N2220, 2N2312, 2N2314, 2N2352, 2N2352A, 2N2353, 2N2353A, 2N2395, 2N2521, 2N2710, 2N3210, 2N3261, 2N3510, 2N3511, 2N3648, 2N3973, 2N3975, 40405, 85Y93, MP56532
	2SC915	2N708A, 2N760, 2N780, 2N916, 2N916A, 2N2331, 2N2481, 2N2501, 2N3508, 2N3647, 2N3705, 2N4013, 2N4138, 2N5144, 2N5450, 2N5810, 2N5814, 65W82, D33D21, GI-3705, MPS3705, PET3705, PET6001, SE6001, SE8004, TI592-YEL, TN62
	2SC916	2N2435, 2N2438
	2SC920	FX3299, HMT3903, *ECG123A, *HEP734, *GE-17, *TR-22, *SK3018
	2SC921	2SC271, 2SC72, 2SC287A, 2SC288A, 2SC289, A3T3011, FX918, FX2368, FX2369A, MMT2369, *HEP718, *ECG107
	2SC923	2N3708-BLU, 2N3708-GRN, 2N3711, 2N4286, 2N4287, 2SC316, 2SC587, 2SC587A, A1578, A322, BC107, BC107B, BC108, BC108B, BC109C, BC122, BC171B, BC172B, BCY58B, BCY58C, BCY59B, BCY59C, BFY39-3, GI-3566, GI-3711, MPS3711, PET4002
	2SC924	2N760, 2N916, 2N2331, 2N2432A, 2N3416, 2N4074, 2N6138, 2N5825, 2SC68, 2SC400, 2SC639, BC173C, BFY39-2, GI-3416, PET4001, *ECG108, *HEP50
	2SC938	2N718, 2N718A, 2N731, 2N735, 2N736, 2N2221, 2N2221A, 2N2315, 2N2317, 2N2390, 2N2396, 2N2439, 2N3301, 2N3903, 2N3946, 2N3974, 2N3976, 2N4227, 2N4962, 2N4963, 2N5027, 2N5368, 2N5820, D33D29, MM3903, MP56530, MP56531, TI599, TN54
	2SC939	2N4071, 182T2, 8DY25B, KSP1176, SDT7604, SDT7605
	2SC940	2N4071, 182T2, 8DY25B
	2SC943	2N2522, *ECG123A, *HEP736
	2SC959	2N3036, *HEP714
	2SC960	
	2SC985	SEE 2N5762
	2SC985A	SEE 2N5762
	2SC987	SEE 2N5761
	2SC987A	SEE 2N5761
	2SC988	SEE 2N5650
	2SC988A	SEE 2N5651
	2SC988B	SEE 2N5652
	2SC989	
	2SC990	
	2SC1071	2N760, 2N916, 2N916A, 2N2331, 2N2501, 2N4138, 2N5144, 2N5450, 2N5810, 2N5814, 2SC68, 2SC639, 2SC764, D33D21, GI-3416, GI-3705, MPS3705, PET3705, PET6002, PET8000, TI592-GRN, TI592-YEL, TN62
	2SC1072	2N1613, 2N1613A, 2N1716, 2N2107, 2N2108, 2N2193, 2N2193A, 2N2193B, 2N2218, 2N2218A, 2N2410, 2N2846, 2N2868, 2N3015, 2N3110, 2N3252, 2N3299, 2N3326, 2N3556, 2N3678, 2N3722, 2N3725, 2N4238, 2SC97, 2SD120, 85Y53, SE8002
	2SC1072A	2N1613, 2N1613A, 2N1716, 2N2107, 2N2108, 2N2193, 2N2193A, 2N2193B, 2N2218, 2N2218A, 2N2410, 2N2846, 2N2868, 2N3015, 2N3110, 2N3252, 2N3299, 2N3326, 2N3556, 2N3678, 2N3722, 2N3725, 2N4238, 2SC97, 2SD120, 85Y53, SE8002
	2SC1090	
	2SD12	2N4915, 2N5069, *GE-19, *HN100, *HEP247, *ECG130
	2SD13	
	2SD14	
	2SD24	*GE-12, *HEP240, *ECG124, *SK3021
	2SD30	2N1993, *ECG103, *HEP641, *GE-8, *SK3011, *NA20
	2SD31	2SC179, 2SC180, *SK3010, *GE-8, *TR-08, *HEP641, *ECG103A
	2SD32	2N2430, 2SC180, 2SC181, 2SD186, AC127, NKT713, *ECG103A, *HEP641, *GE-8, *SK3010, *NA20
	2SD35	2SD36, 2SD186, *HEP641, *ECG103A, *TR-08
	2SD36	2SD35, 2SD186, *TR-08, *ECG101, *HEP641
	2SD43	2SC179, 2SC180, 2SC181, 2SD186, NKT713, *ECG101, *DS66, *SK3010, *NA20, *GE-8, *TR-08
	2SD43A	*TR-08, *GE-8, *SK3010, *DS-66, *ECG101, *HEP641
	2SD44	2SD63A, 2SD77A, *HEP641, *ECG101, *NA30, *GE-8, *TR-08
	2SD45	2N4347, 2SC42A, 2SC586, 182T2, 8DY25B, KS02201, KSP1173, SDT7610, SDT7611
	2SD46	
	2SD47	2N1490, 2SD125A, 181T2, 40369, 8DY24B, HST9803, HST9804, KS02202, KS02203, KS02203, KSP1172, SDT7609, *HEP704
	2SD51	2N4070, 2SD125A, 181T2, 8DY24B, KSP1175, SDT7603, *HEP704, *ECG130, *GE-19, *HN100, *SK3021
	2SD61	2SD62, 2SD62, 2SD75A, *HEP641, *ECG103, *SK3010, *NA30, *DS66, *GE-8, *TR-08, *AA2
	2SD62	2SD63A, 2SD61, 2SD75A, *AA2, *TR-08, *GE-8, *DS66, *NA30, *SK3010, *ECG103, *HEP641
	2SD63	2SC179, 2SC180, 2SD31, 2SD61, 2SD62, 2SD75, *HEP641, *ECG103, *SK3010, *NA30, *DS66, *GE-8, *TR-08, *AA2
	2SD64	2N2430, 2SC181, 2SD32, 2SD96, 2SC186, AC127, NKT713, *AA2, *GE-8, *DS-66, *NA30, *SK3010, *ECG101, *HEP641

TRANSISTOR SUBSTITUTES

2SD65-2T323

Q1 To Replace	Substitute This Type
2SD65	2SC179, 2SC180, 2SD31, 2SD61, 2SD62, 2SD75, *HEP641, *ECG103, *SK3010, *DS-66, *GE-10, *TR-08, *AA2
2SD66	2SD31, 2SD61, 2SD62, 2SD75, *ECG103A, *SK3010, *DS-66, *NA20, *TR-08, *GE-10, *AA2, *HEP641
2SD67	2N4070, 2SD68, KSP1176, SDT7604
2SD68	2N4070, 2SD67, KSP1176, SDT7604, *HEP247, *ECG130
2SD70	BD109, BDY12, HST5901, MJ2249, MJ3101, *ECG130, *HEP247, *TR-26
2SD71	2N3767, HST5903, *TR-26
2SD72	*GE-8, *HEP641, *ECG103A, *NA20, *SK3010
2SD73	2N1490, 2N3446, 2N3448, 2N3864, 2N4070, 2SD125A, 181T2, 40369, B170006-BRN, B170006-ORG, B170006-RED, B170007-BRN, B170007-ORG, B170007-RED, B170024, B170025, BDY248, KSP1175, SDT7603, *HEP704
2SD74	2N3865, 2N4071, 2SD126, 182T2, BDY25B, KSP1176, SDT7604, SDT7605, *HEP707
2SD75	*HEP641, *ECG103A, *SK3010, *NA30, *DS-66, *GE-8, *TR-08, *AA2
2SD75A	*TR-08, *GE-10, *DS-66, *SK3010, *ECG103A, *HEP641
2SD77	2SC179, 2SC180, 2SC181, 2SD186, NKT713, *HEP641, *ECG103A, *SK3010, *DS66, *NA30, *GE-8, *TR-08, *AA2
2SD77A	*TR-08, *GE-8, *DS-66, *SK3010, *ECG103A, *HEP641
2SD78	
2SD79	
2SD96	*SK3010, *GE-8, *HEP641, *ECG103A
2SD100	2SD100A, *ECG103A, *SK3010, *DS-66
2SD100A	*ECG103A
2SD101	*ECG101, *HEP641
2SD104	*HEP641, *ECG103A, *DS-66, *SK3010, *NA20, *GE-8
2SD105	*GE-8, *NA20, *SK3010, *DS-66, *ECG103A, *HEP641
2SD120	*HEP243, *ECG128, *SK3024
2SD121	40367, *SK3024, *ECG128
2SD122	*HEP243
2SD123	
-2SD124	2N1487, 2N1489, 2SD124A, BDY23A, HST9201, HST9205, HST9206, HST9801, HST9802, *HEP247, *ECG130, *SK3027, *GE-14
2SD124A	2N3446, HST9202, HST9206, HST9207, HST9802, HST9803
-2SD125	2N1488, 2N1490, 2N3446, 2SD125A, 40369, BDY24A, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, *HEP704, *ECG130, *SK3027, *GE-14
2SD125A	2N3446, 2N3448, *GE-14
2SD126	2N3865, 2N4071, KSD9706, KSP1176, SDT7604, SDT7605
2SD127	*HEP641, *ECG130A, *SK3010, *DS-66
2SD127A	*ECG103A, *HEP641
2SD128	*HEP641, *ECG103A, *DS-66, *SK3010, *NA20, *GE-8
2SD128A	*GE-8, *SK3010, *ECG103A, *HEP641
2SD132	*HEP704
2SD134	*SN80, *DS66, *ECG123, *GE-20
2SD141	*GE-14, *TR-26, *ECG130, *SK3027, *HEP703
2SD142	BD109, HST5901, *HEP703, *SK3026, *ECG130, *TR-23, *GE-24, *MP
2SD143	2N3766, 2N3767, BDY13, HST5902, HST5903, MJ2250, *GE-12, *TR-23, *ECG152, *PN66, *HEP703
2SD144	2N3767, HST5903, *HEP241, *TR-26
2SD150	2N4071, BDY12, HST5901, MJ2249, MJ3101, *HEP703, *TR-23, *GE-12, *ECG130, *SK3021
2SD151	2M5039, 108T2, *SK3036, *ECG130, *GE-14, *HEP704
2SD152	HST6905, HST6906, HST6907, SDT6905, SDT6906, SDT6907, *HEP241, *GE-23
2SD154	2N3766, 2N3767, *HEP703, *ECG130
2SD155	2N3766, 2N3767
2SD178	2SD72, *HEP641, *ECG103A, *GE-8, *SK3020, *DS66, *SN80
2SD178A	2SD178, *SN80, *DS-66, *SK3020, *GE-8, *ECG103A, *HEP641
2SD178B	
2SD180	2SD125A, KSP1175, SDT7602, SDT7603, *ECG130, *HEP704
2SD186	*HEP641, *ECG101, *SK3010, *DS-66
2SD187	2SD186, *DS-66, *SK3010, *ECG101, *HEP641, *GE-8
2SD191	2N385A, 2N388A, 2N440, 2N440A, 2N1012, 2N1299, 2N1605A, 2N1624, 2SD192, SF. T298, *TR-08, *ECG103A, *HEP641
2SD192	2N385A, 2N388A, 2N440, 2N440A, 2N1012, 2N1299, 2N1605A, 2N1624, 2SD191, SF. T298, *HEP641, *ECG103A, *TR-08
2SD193	2SD194, *ECG103A, *HEP641
2SD194	2SD193, *ECG103A
2SD204	2N697, 2N1116, 2N1117, 2N1716, 2N1959A, 2N2017, 2N2108, 2N2193, 2N2193A, 2N2193B, 2N2218, 2N2270, 2N2537, 2N2848, 2N2868, 2N3109, 2N3725A, 2N4960, 2N4961, 40635, TM53
2SD205	2N2017, 2N2108, 2N2270, 2N3725A, 40635
2SD217	2N3864, 2N3865, 2N4070, KSP1176, SDT7604, *HEP704
2SD218	2N3865, 2N4071, KSP1176, SDT7604, SDT7605
2SD227	2N3227, 2N3242A, 2N3416, 2N3509, 2N3704, 2N4074, 2N5449, 2N5451, 2N5816, 2N6000, 2N6004, 2N6010, 2SC367, BSWB3, G1-3464, G1-3706, MP53704, MP53706, PET3704, PET3706, PET6002, PET8000, TN60, TN80, *HEP50, *ECG123A
2SD228	2N3242A, 2N3509, 2N4074, 2N5816, 2N6000, 2N6004, 2N6010, BSWB3, TI592-BLU, TI592-GRN, TI592-VIO, TN60, TN80, *ECG123A, *HEP50
2SD254	2N3766, 2N3767, BDY13, MJ2250
2SD255	2N3766, 2N3767, BDY13, MJ2250
2T15	SEE 2SD50
2T64	SEE 2SD64
2T65	SEE 2SD65
2T66	SEE 2SD66
2T69	SEE 2SD63
2T73	SEE 2SD73
2T75	SEE 2SD75
2T76	SEE 2SD76
2T77	SEE 2SD77
2T78	SEE 2SD78
2T83	SEE 2SD83
2T201	SEE 2SA121, 2, 3
2T203	SEE 2SA124
2T205A	SEE 2SA125
2T311	SEE 2SB48
2T312	SEE 2SB48 B
2T313	SEE 2SB49
2T314	SEE 2SB49
2T321	SEE 2S851
2T322	SEE 2S851
2T323	SEE 2S852

Q1 To Replace	Substitute This Type
2T324	SEE 25B52
2T681	SEE 25D61
2T682	SEE 25D62
2T3011	SEE 25B140
2T3021	SEE 25B141
2T3030	SEE 25B142
2T3031	SEE 25B143
2T3032	SEE 25B143,4
2T3033	SEE 25B144
2T3041	SEE 25B145
2T3042	SEE 25B145,6
2T3043	SEE 25B146
3TE110	SEE 2N4131
3TE120	SEE 2N4130
-3TE245	
-3TE350	
-3TE440	
-3TE450	
3TE604	
3TE609	
3TE610	
3TE611	
3TK601	2N5995
3TK602	2N5996
3TK632	2N5636,2N5918,MM1550
3TK820	2N5644,2N5645,2N5698,2N5699,2N5700,2N5914,2N5915,3TK821
3TK821	2N5645,2N5646,2N5699,2N5700,2N5915
-4C28	2N472,2N707,2N7588,2N5250,*ECG123A,*TR-24,*SN80,*SK3020,*DS-41,*HEP53
-4C29	2N707,*HEP53,*DS-66,*SK3020,*SN80,*GE-20,*ECG123A
-4C30	2N480,2N708,2N708A,2N744A,2N780,2N780A,2N840,2N914,2N2312,2N2387,2N2483,2N2521,2N2523,2N3210,2N3605A,2N3606A,2N3646,2N3688,2N3689,2N3690,2N3973,2N3975,2N4137,2N4140,2N4258,2N4418,2N4420,2N4422,2N5029,2SC321,2SC382,2SC427,2SC401,2SC489,2SC896,8FY39-1,8SY93,EN697,ENT08,EN914,EN2369A,EN3009,EN3013,EN3014,GET708,GET914,GET2221,GET2369,GET3013,GET3014,GET3646,KT218,MM2483,MPM5006,MP53646,MP56512,MP56591,MP5A10-RED,MP5A20-RED,SE5001,SE5002,SE5003,SE5006,T1584,T1587,*ECG123A,*GE-20,*TR-24,*SN80,*SK3020,*DS-66,*HEP53
-4C31	2N718,2N843,2N516,2N916A,2N957,2N2315,2N2369A,2N2432A,2N2501,2N3009,2N3013,2N3014,2N3093,2N3862,2N3903,2N3946,2N3974,2N3976,2N4123,2N4227,2N4873,2N4966,2N9904,2N5027,2N8824,2SC67,2SC68,2SC318,2SC323,2SC424,2SC468,2SC536,2SC544,2SC601N,2SC639,2SC764,EN916,MM3903,MP53693,MP53826,MP56513,MP56565,MP5A10-WHT,MP5A20-WHT,PET1001,SE1001,*HEP53,*DS-66,*SK3020,*TR-24,*GE-20,*ECG123A
-4C43	2N498,2N498A,2N2039,MM3000,*TR-25
-4C40	2N162A,2N163A,2N475,2N706C,2N717,2N743A,2N783,2N834,2N834A,2N842,2N937,2N940,2N2314,2SC562,KT218,MPM5006,MP5834,MP5H20,MP5H37,T1584,T15108,*ECG123A,*HEP53,*TR-24,*GE-20,*DS-81,*SN80
-4D21	2N5614,2N916,2N916A,2N2324,2N3859A,2N3862,2N3903,2N3974,2N3976,2N4227,2N4873,2N4966,2N5027,2N5824,2SC68,2SC318,2SC323,2SC639,2SC764,EN916,MM3903,MP56513,MP5A10-WHT,MP5A20-WHT,*SN80,*GE-20,*TR-24,*HEP53,*ECG123A
4D22	SEE 2N2349
-4D24	2N118A,2N473,2N474,2N702,2N706,2N706A,2N706B,2N743,2N784,2N835,2N947,2N988,2N989,2N1269,2N1272,2N1386,2N1589,2N1590,2N2205,2N2616,2N2729,2N2921,2N2926-BRN,2N3544,2N3862,2N3863,2N3844,2N3844A,2N3854,2N3854A,2N4421,2N5130,2SC387,2SC455,2SC546,2N9904,2SC674,2SC684,2SC772,EN918,G1-2711,G1-2713,G1-2715,G1-3005,G1-3006,G1-3607,MM708,MM1748,MM1941,MP5706,MP5706A,MP52926-BRN,MP56507,MP56511,MP56540,MP56542,MP56548,MT1038,MT1038A,MT1039,MT1060,PET3001,PET8101,SE1010,SE3002,SE5025,T1563,T1564,*SN80,*DS-81,*SK3020,*GE-20,*TR-21,*HEP53,*ECG123A
-4D25	2N541,2N542,2N1592,2N1593,2N2565,2N2570,2N2923,2N2926-ORG,2N3298,2N3393,2N3396-ORG,2N3397-ORG,2N3398-ORG,2N3633,2N3708-ORG,2N3709-RED,2N3845,2N3856,2N3856A,2N3859,2N3959,2N3960,2N4138,2N4968,2N5132,2N5136,2N5137,2N5200,2N5201,2N5224,2SC400,2SC459,2SC460,2SC528,2SC645,40398,40400,BC1708,35Y61,G1-2712,G1-2714,G1-2716,MP52712,MP52926-ORG,MP53394,MP5H10,MP5H11,PET3002,PET4001,SE3005,SE4001,*ECG123A,*HEP53,*TR-24,*GE-20,*SK3020,*DS-66,*SN80
-4D26	8CY58,TN79,*SN80,*DS-66,*SK3020,*GE-20,*HEP53,*ECG123A
7A30	2N2106,*GE-17,*ECG107,*EN10
7A31	2N1613A,2N2108,*EN10,*ECG107,*GE-17
7A32	2N1711A,*GE-17,*ECG107,*EN10
-7B1	*GE-12,*PN66,*SK3021,*ECG124
-7B2	*ECG124,*SK3021,*PN66,*GE-12
-7C1	*GE-12,*ECG124,*SK3021,*PN66
-7C2	*PN66,*SK3021,*ECG124,*GE-12
-7C3	*GE-12,*ECG124,*SK3021,*PN66
-7D1	*GE-12,*PN66,*SK3021,*ECG124
-7D2	*ECG124,*SK3021,*GE-12
-7D3	*GE-12,*SK3021,*PN66,*ECG124
-7E1	*ECG124,*GE-12,*SK3021
-7E2	*SK3021,*PN66,*GE-12,*ECG124
-7E3	*ECG124,*GE-12,*SK3021
-7F1	
-7F2	
-7F3	
-7F4	
-7G1	*GE-12,*SK3021,*PN66,*ECG124
-7G2	*ECG124,*PN66,*SK3021,*GE-12
-7G3	*GE-12,*SK3021,*PN66,*ECG124
-7G4	*ECG124,*PN66,*SK3021,*GE-12
-10B551-2	*GE-17
-10B551-3	*GE-17
-10B553-2	*TR-24,*GE-17
-10B553-3	*GE-17,*TR-24
-10B555-2	*GE-17,*GE-17
-10B555-3	*GE-17,*TR-22
-10B556-2	*TR-21,*GE-17
-10B556-3	*GE-17,*TR-21
-10C573-2	*GE-17
-10C573-3	*GE-17
-10C574-2	*GE-17

To Replace	Substitute This Type
-16K3	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916A, 2N916A, 2N2319, 2N2319, 2N2369A, 2N2501, 2N3009, 2N3011, 2N3013, 2N3014, 2N3210, 2N3504, 2N3605A, 2N3606A, 2N3646, 2N3688, 2N3689, 2N3690, 2N3882, 2N4137, 2N4264, 2N4275, 2N4294, 2N4418, 2N4419, 2N4420, 2N4422, 2N4494, 2N4997, 2N5029, 2N5030, 2SC67, 2SC68, 2SC321, 2SC427, 2SC428, 2SC408, 2SC601, 2SC639, 2SC639, 2SC689, 2SC764, 8C173B, EN708, EN914, EN916, EN2365A, EN3009, EN3011, EN3013, EN3014, GET 708, GET914, GET2369, GET3013, GET3014, GET3646, MPS3646, MT1060A, SE5003, SE5005, SE5006, SE5002, SE5003, SE5006, TI 587, *GE-17, *ECG108, *EN10
-16L2	2N706C, 2N743A, 2N783, 2N784, 2N834, 2N834A, 2N2368, 2N3261, 2N3793, 2N3854A, 2N4421, 2SC370, 2SC455, 40405, GET 706, GI-3793, KT218, MPM5006, MPM5834, MPM5632, MPM5640, MPM5H20, MPM5H32, MPM5H37, MT1038, MT1038A, MT1039, PET3001, SE1010, *EN10, *DS-81, *ECG108, *GE-17, *TR-24, *HEP56
-16L3	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916A, 2N957, 2N2318, 2N2319, 2N2369, 2N2369A, 2N2481, 2N2501, 2N2710, 2N3009, 2N3011, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3564, 2N3650A, 2N3660A, 2N3646, 2N3647, 2N3648, 2N3688, 2N3689, 2N3690, 2N3691, 2N3693, 2N3845, 2N3845A, 2N3854, 2N3882, 2N4123, 2N4137, 2N4264, 2N4275, 2N4294, 2N4418, 2N4419, 2N4420, 2N4422, 2N4494, 2N5029, 2N5030, 2N5144, 2N5824, 2SC67, 2SC318, 2SC321, 2SC323, 2SC356, 2SC371, 2SC427, 2SC461, 2SC468, 2SC595, 2SC601, 2SC601A, 2SC689, 2SC764, 8C173B, 8F939-1, B5W42, EN708, EN914, EN2369A, EN3009, EN3011, EN3013, EN3014, GET 708, GET914, GET2369, GET3013, GET3014, GET3646, MPS2369, MPS3646, MPS3693, MPS3705, MPS6512, MPSA20-RED, PET1001, PET2001, PT2760, SE1001, SE2001, SE5001, SE5002, SE5003, SE5006, *HEP56, *TR-24, *GE-17, *ECG108, *DS-81, *EN10
-16L4	2N916, 2N916A, 2N2331, 2N3845, 2N3845A, 2N3856A, 2N4873, 2N5144, 2SC68, 2SC318, 2SC323, 2SC400, 2SC454, 2SC458, 2SC459, 2SC460, 2SC639, 2SC764, 8C173C, 8F939-2, EN916, MPM5613, MPM5A20-GRN, MPM5A20-WHT, PET3002, SE3005, SE4001, *TR-24
-16L5	*GE-17, *EN10, *DS-81, *ECG108, *HEP56
-16L22	2N706C, 2N743A, 2N783, 2N784, 2N834, 2N834A, 2N2368, 2N3261, 2N3793, 2N3854A, 2N4421, 2SC370, 2SC455, 40405, GET 706, GI-3793, KT218, MPM5006, MPM5834, MPM5632, MPM5640, MPM5H20, MPM5H32, MPM5H37, MT1038, MT1038A, MT1039, PET3001, SE1010, *HEP56, *ECG108, *DS-81, *EN10, *GE-17, *TR-24
-16L23	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916A, 2N957, 2N2318, 2N2319, 2N2369, 2N2369A, 2N2481, 2N2501, 2N2710, 2N3009, 2N3011, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3564, 2N3605A, 2N3606A, 2N3646, 2N3647, 2N3648, 2N3688, 2N3689, 2N3690, 2N3691, 2N3693, 2N3845, 2N3845A, 2N3854, 2N3882, 2N4123, 2N4137, 2N4264, 2N4275, 2N4294, 2N4418, 2N4419, 2N4420, 2N4422, 2N4494, 2N5029, 2N5030, 2N5144, 2N5824, 2SC67, 2SC318, 2SC321, 2SC323, 2SC356, 2SC371, 2SC427, 2SC461, 2SC468, 2SC595, 2SC601, 2SC601A, 2SC689, 2SC764, 8C173B, 8F939-1, B5W42, EN708, EN914, EN2369A, EN3009, EN3011, EN3013, EN3014, GET 708, GET914, GET2369, GET3013, GET3014, GET3646, MPS2369, MPS3646, MPS3693, MPS3705, MPS6512, MPSA20-RED, PET1001, PET2001, PT2760, SE1001, SE2001, SE5001, SE5002, SE5003, SE5006, *TR-24, *GE-17, *EN10, *DS-81, *ECG108, *HEP56
-16L24	2N916, 2N916A, 2N2331, 2N3845, 2N3845A, 2N3856A, 2N4873, 2N5144, 2SC68, 2SC318, 2SC323, 2SC400, 2SC454, 2SC458, 2SC459, 2SC460, 2SC639, 2SC764, 8C173C, 8F939-2, EN916, MPM5613, MPM5A20-GRN, MPM5A20-WHT, PET3002, SE3005, SE4001, *TR-24
-16L25	2N3856A, 2N4873, 2SC454, 2SC458, 2SC459, 8C173C, 8F939-2, EN916, MPM5613, MPM5A20-GRN, MPM5A20-WHT, PET3002
-16L42	2N706A, 2N706B, 2N743, 2N784, 2N2921, 2N2926-8RN, 2N3854, 2N3854A, 2N4421, 2N5187, 2SC370, 2SC455, GI-3605, GI-3606, GI-3607, MPM5706A, MPM52926-8RN, MPM5654, MT1038, MT1038A, MT1039, PET3001, PET8101, SE1010, *TR-21, *GE-17, *HEP50, *ECG123A, *EN10, *SK3019
16L43	SEE 2N3854
16L44	SEE 2N3855
16L45	SEE 2N3856
-16L62	2N706C, 2N743A, 2N783, 2N784, 2N834, 2N834A, 2N2368, 2N3261, 2N3793, 2N3854A, 2N4421, 2SC370, 2SC455, 40405, GET 706, GI-3793, KT218, MPM5006, MPM5834, MPM5632, MPM5640, MPM5H20, MPM5H32, MPM5H37, MT1038, MT1038A, MT1039, PET3001, SE1010, *HEP56, *ECG123A, *HEP50, *GE-17, *TR-24
16L63	SEE 2N3854
16L64	SEE 2N3855A
16L65	SEE 2N3856A
16L1	SEE 2N3877A
16X2	SEE 2N3877
71T2	
72T2	
73T2	71T2
74T2	72T2
80T2	
81T2	*SK3024, *ECG128, *GE-18
82T2	83T2
83T2	
90T2	2N719, 2N719A, 2N738, 2N738A, 2N912, 2N2463, 2N4390, 8F980
91T6	2N3391, 2N3391A, 2N6002, 2N6008, A158C, A159C, BC109, 8C169, 8C172C, 8C958D, PBC108C, PBC109C, PET4003, SE4002, SE4010
92T6	2N2926-GRN, 2N2926-YEL, 2N3391, 2N3391A, 2N3392, 2N3415, 2N3565, 2N4286, 2N6002, 2N6008, 2SC368, 2SC369, 91T6, 98T2, 40397, 40399, A158B, A159B, 8C108, 8C108B, 8C109C, 8C168, 8C170C, 8C172A, 8C958A, 8C958B, 8C958C, MPM5172, PBC108B, PBC109B, PET4002
93T6	2N2712, 2N2714, 2N2924, 2N2925, 2N2926-YEL, 2N3241A, 2N3392, 2N3414, 2N4124, 2N4256, 2N4265, 2N5172, 2N6000, 2SC454, 2SC458, 92T6, 40232, 40233, 40397, 40399, 8C108, 8C108A, 8C172A, 8C173C, 8C958A, MPM52714, MPM52926-GRN, MPM52926-YEL, MPM5172, PBC108A, T880
98T2	
100T2	*HM100
108T2	109T2
109T2	
111T2	2N657, 2N699A, 2N699B, 2N1613B, 2N1885, 2N1893, 2N1974, 2N24102A, 2N2443, 2N2891, 2N3107, 2N4924, 2SC49, 2SC353, 2SC470-3, 2SC470-4, 2SC590, MM3008, SE7002
121-6	SEE 2N216
121-7	SEE 2N25
121-9	SEE 2N112
121-10	SEE 2N111
121-11	SEE CK725
121-12	SEE CK725
121-14	SEE 2N112
121-21	SEE 2N193
121-22	SEE 2N194
121-24	SEE 2N168A
121-25	SEE 2N168A
121-26	SEE 2N168
121-27	SEE 2N190
121-33	SEE 2N169A

TRANSISTOR SUBSTITUTES

121-34-151-08

Q1 To Replace	Substitute This Type
121-34	SEE 2N186A
121-44	SEE 2N370
121-45	SEE 2N139
121-46	SEE 2N109
121-47	SEE 2N270
121-48	SEE 2N371
121-49	SEE 2N372
121-50	SEE 2N253
121-51	SEE 2N254
121-54	SEE 2N252
121-60	SEE 2N213
121-61	SEE 2N407
121-62	SEE 2N411
121-63	SEE 2N247
121-64	SEE 2N407
121-65	SEE 2N409
121-66	SEE 2N409
121-67	SEE 2N308
121-70	SEE 2N515
121-71	SEE 2N516
121-73	SEE 2N409
121-74	SEE 2N409
121-75	SEE 2N139
121-76	SEE 2N139
121-78	SEE 2N544
121-91	SEE 2N483
121-92	SEE 2N485
121-93	SEE 2N483
121-94	SEE 2N482
121-95	SEE 2N362
121-96	SEE 2N532
121-101	SEE 2N544
121-102	SEE 2N409
121-103	SEE 2N411
121-104	SEE 2N409
121-105	SEE 2N409
121-107	SEE 2N407
121-113	SEE 2N309
121-128	SEE 2N1108
121-134	SEE 2N1177
121-135	SEE 2N1178
121-136	SEE 2N1179
121-138	SEE 2N1180
121-139	SEE 2N1180
121-145	SEE 2N1108
121-146	SEE 2N1110
121-147	SEE 2N1111
121-148	SEE 2N407
121-150	SEE 2N1631
121-153	SEE 2N1108
121-154	SEE 2N1110
121-161	SEE 2N410
121-162	SEE 2N410
121-164	SEE 2N408
121-179	SEE 2N1527
121-180	SEE 2N1525
121-181	SEE 2N1525
121-184	SEE 2N1374
121-185	SEE 2N1525
121-205	SEE 2N1374
121-225	SEE 2N407
121-228	SEE 2N1742
121-229	SEE 2N1745
121-230	SEE 2N1745
121-231	SEE 2N1865
121-232	SEE 2N1865
121-233	SEE 2N1747
121-240	SEE 2N2614
121-241	SEE 2N218
121-242	SEE 2N993
121-243	SEE 2N993
121-244	SEE 2N993
121-256	SEE 2N1632
121-257	SEE 2N1526
121-258	SEE 2N1524
121-259	SEE 2N1524
121-260	SEE 2N1524
121-266	SEE 2N406
121-267	SEE 2N408
121-268	SEE 2N1742
121-269	SEE 2N1745
121-294	SEE 2N2654
121-295	SEE 2N2654
121-296	SEE 2N2654
121-297	SEE 2N2671
121-298	SEE 2N2671
121-299	SEE 2N2671
121-300	SEE 2N2429
121-301	SEE 2N2428
121-302	SEE 2N1302
121-309	SEE 2N2429
121-310	SEE 2N2428
121-311	SEE 2N2706
151-04	2N1016A, 151-06, 152-04, 152-06
151-06	2N1016B, 151-08, 152-06, 152-08
151-08	2N1016B, 151-10, 152-08, 152-10

Q1 Q2	To Replace	Substitute This Type
151-10	2N1016C, 151-12, 151-14, 152-10, 152-12, 152-14	
151-12	2N1016C, 151-14, 151-16, 152-12, 152-14, 152-16	
151-14	2N1016C, 2N1016D, 151-16, 151-18, 152-14, 152-16, 152-18	
151-16	2N1016D, 151-18, 151-20, 152-16, 152-18, 152-20	
151-18	2N1015E, 2N1016D, 2N1016E, 151-20, 151-22, 151-24, 152-18, 152-20, 152-22, 152-24	
151-20	2N1015E, 2N1016E, 151-18, 151-22, 151-24, 151-26, 152-18, 152-20, 152-22, 152-24, 152-26, 152-28	
151-22	2N1015E, 2N1016E, 151-20, 151-24, 151-26, 151-28, 152-20, 152-22, 152-24, 152-26, 152-28	
151-24	2N1015E, 2N1016E, 151-22, 151-26, 151-28, 151-30, 152-22, 152-24, 152-26, 152-28, 152-30	
151-26	151-18, 151-28, 151-30, 152-26, 152-28, 152-30	
151-28	151-26, 151-30, 152-26, 152-28, 152-30	
151-30	151-28, 152-28, 152-30	
152-04	152-06	
152-06	152-08	
152-08	152-10	
152-10	152-12, 152-14	
152-12	152-14, 152-16	
152-14	152-16, 152-18	
152-16	152-18, 152-20	
152-18	152-20, 152-22, 152-24	
152-20	152-18, 152-22, 152-24, 152-26	
152-22	152-20, 152-24, 152-26, 152-28	
152-24	152-22, 152-26, 152-28, 152-30	
152-26	152-24, 152-28, 152-30	
152-28	152-26, 152-30	
152-30	152-28	
153-04	153-06, 154-04, 154-06	
153-06	153-08, 154-06, 154-08	
153-08	153-10, 154-08, 154-10	
153-10	153-12, 153-14, 154-10, 154-12, 154-14	
153-12	153-14, 153-16, 154-12, 154-14, 154-16	
153-14	153-16, 153-18, 154-14, 154-16, 154-18	
153-16	153-18, 153-20, 154-16, 154-18, 154-20, 154-22, 154-24	
153-18	153-20, 153-22, 153-24, 154-18, 154-20, 154-22, 154-24, 154-26	
153-20	153-18, 153-22, 153-24, 153-26, 154-18, 154-20, 154-22, 154-24, 154-26, 154-28	
153-22	153-20, 153-24, 153-26, 153-28, 154-20, 154-24, 154-26, 154-28	
153-24	153-22, 153-26, 153-28, 153-30, 154-26, 154-28, 154-30	
153-26	153-24, 153-28, 153-30, 154-26, 154-28, 154-30	
153-28	153-26, 153-30, 154-28, 154-30	
153-30	154-30	
154-04	154-06	
154-06	154-08	
154-08	154-10	
154-10	154-12, 154-14	
154-12	154-14, 154-16	
154-14	154-16, 154-18	
154-16	154-18, 154-20, 154-22, 154-24	
154-18	154-20, 154-22, 154-24, 154-26	
154-20	154-18, 154-22, 154-24, 154-26, 154-28	
154-22	154-18, 154-20, 154-24, 154-26, 154-28	
154-24	154-20, 154-22, 154-26, 154-28	
154-26	154-24, 154-28, 154-30	
154-28	154-26, 154-30	
154-30		
156-043	2N3235, 156-044, 1582-0508, 1582-0510, 1582-0608, 1582-0615, HST9201, HST9205, *EGC130	
156-044	2N3235, 156-043, HST9201, HST9205	
156-083	2N3236, 2N3237, 156-084, 156-104, 1582-C808, 1582-0815, 1582-1008, 1582-1010, 1582-1015, HST9202, HST9206, HST9207, MJ3772	
156-084	2N3236, 2N3237, 2N5629, 156-083, 156-104, HST9202, HST9206, HST9207, MJ3772	
156-104	2N3236, 2N5629, 2N5630, 108T2, 156-123, 156-124, HST9202, HST9203, HST9204, HST9208, HJ3772	
156-123	2N5630, 2N5631, 108T2, 109T2, 156-124, 156-144, 156-164, 1582-1208, 1582-1210, 1582-1215, 1582-1410, 1582-1415, 1582-1608, 1582-1610, 1582-1615, HST9203, HST9204, HST9208, HST9209	
156-124	2N5630, 2N5631, 108T2, 109T2, 156-123, 156-144, 156-164, HST9203, HST9204, HST9208, HST9209	
156-144	2N5631, 109T2, 156-164, HST9204, HST9209	
156-164	109T2, 1723-2005	
163-04	163-06, 164-04, 164-06	
163-06	163-08, 164-06, 164-08	
163-08	163-10, 164-08, 164-10	
163-10	163-12, 163-14, 164-10, 164-12, 164-14	
163-12	163-14, 163-16, 164-12, 164-14, 164-16	
163-14	163-16, 163-18, 164-14, 164-16, 164-18	
163-16	163-18, 163-20, 164-16, 164-18, 164-20	
163-18	163-20, 163-22, 163-24, 164-18, 164-20, 164-22, 164-24	
163-20	163-22, 163-24, 163-26, 164-20, 164-22, 164-24, 164-26	
163-22	163-20, 163-24, 163-26, 163-28, 164-20, 164-22, 164-24, 164-26, 164-28	
163-24	163-22, 163-26, 163-28, 163-30, 164-22, 164-24, 164-26, 164-28, 164-30	
163-26	163-24, 163-28, 163-30, 164-24, 164-26, 164-28, 164-30	
163-28	163-26, 163-30, 164-26, 164-28, 164-30	
163-30	163-28, 164-28, 164-30	
164-04	164-06	
164-06	164-08	
164-08	164-10	
164-10	164-12, 164-14	
164-12	164-14, 164-16	
164-14	164-16, 164-18	
164-16	164-18, 164-20	
164-18	164-20, 164-22, 164-24	
164-20	164-22, 164-24, 164-26	
164-22	164-20, 164-24, 164-26, 164-28	
164-24	164-22, 164-26, 164-28, 164-30	
164-26	164-24, 164-28, 164-30	
164-28	164-26, 164-30	
164-30	164-28	
176-04	164-04	

TRANSISTOR SUBSTITUTES

176-06-1714-1605

Q1 To Replace	Substitute This Type
-176-06	164-06,164-08
-176-08	164-08,164-10
-176-10	164-10,164-12,ST15043,ST15044
-176-12	164-12,164-14,ST15043,ST15044,ST15045
-176-14	164-12,164-14,164-16,164-18,ST15044,ST15045
-176-16	164-14,164-16,164-18,164-20,ST15045
18012	8DY238,*ECG130,*Hh100
18112	2N3448,8DY248
18272	8DY258
18312	8DY268
18472	185T2,8DY278,8DY288
185T2	8DY288
903	SEE 2N1149
904	SEE 2N1150
904A	SEE 2N1151
905	SEE 2N1152
910	SEE 2N1153
951	SEE 2N1154
952	SEE 2N1155
953	SEE 2N1156
-1401-12	
-1401-14	
1401-0415	1401-0420,1401-0425,1401-0615,1401-0625
1401-0420	1401-0615,1401-0620,1401-0625
1401-0425	1401-0415,1401-0420,1401-0615,1401-0625
1401-0615	1401-0620,1401-0625,1401-0815,1401-0825
1401-0620	1401-0815,1401-0820,1401-0825,1401-1015,1401-1025
1401-0625	1401-0615,1401-0620,1401-0815,1401-0825
1401-0815	1401-0820,1401-0825,1401-1015,1401-1020,1401-1025
1401-0820	1401-1015,1401-1020,1401-1025,1401-1215
1401-0825	1401-0815,1401-0820,1401-1015,1401-1020,1401-1025
1401-1015	1401-1020,1401-1025,1401-1215
1401-1020	1401-1015,1401-1025,1401-1215
1401-1025	1401-1015,1401-1020,1401-1215
1401-1215	1401-1020
1441-0405	1441-0407,1441-0410,1441-0605,1441-0607,1441-0610
1441-0407	1441-0405,1441-0410,1441-0605,1441-0607,1441-0610
1441-0410	1441-0405,1441-0407,1441-0605,1441-0607,1441-0610
1441-0605	1441-0607,1441-0810,1441-0805,1441-0807,1441-0810
1441-0607	1441-0605,1441-0610,1441-0805,1441-0807,1441-0810
1441-0610	1441-0605,1441-0607,1441-0805,1441-0807,1441-0810
1441-0805	1441-0807,1441-0810,1441-1005,1441-1007,1441-1010
1441-0807	1441-0805,1441-0810,1441-1005,1441-1007,1441-1010
1441-0810	1441-0805,1441-0807,1441-1005,1441-1007,1441-1010
1441-1005	1441-1007,1441-1010,1441-1205,1441-1207,1441-1210
1441-1007	1441-1005,1441-1010,1441-1205,1441-1207,1441-1210
1441-1010	1441-1005,1441-1007,1441-1205,1441-1207,1441-1210
1441-1205	1441-1207,1441-1210
1441-1207	1441-1205,1441-1210
1441-1210	1441-1205,1441-1207
1571-0420	1571-0425,1571-0620
1571-0425	1571-0420,1571-0620
1571-0620	1571-0820,1571-0825
1571-0820	1571-0825,1571-1020,1571-1025
1571-0825	1571-0820,1571-1020,1571-1025
1571-1020	2N3879,2N5202,1571-1025,1571-1220,1571-1225
1571-1025	2N3879,2N5202,1571-1020,1571-1220,1571-1225
1571-1220	2N3879,2N5202,1571-1225,1571-1425,1571-1620,1571-1625
1571-1225	2N3879,2N5202,1571-1220,1571-1425,1571-1620,1571-1625
1571-1425	1571-1620,1571-1625
1571-1620	1571-1625
1571-1625	1571-1620
1582-0508	1582-0510,1582-0608,1582-0615
1582-0510	1582-0608,1582-0615
1582-0608	1582-0615,1582-0808,1582-0815
1582-0615	1582-0608,1582-0808,1582-0815
1582-0808	1582-0815,1582-1008,1582-1010,1582-1015
1582-0815	1582-0808,1582-1008,1582-1010,1582-1015
1582-1008	108T2,1582-1010,1582-1015,1582-1208,1582-1210,1582-1215
1582-1010	108T2,1582-1008,1582-1015,1582-1208,1582-1210,1582-1215
1582-1015	108T2,1582-1008,1582-1010,1582-1208,1582-1210,1582-1215
1582-1208	108T2,109T2,1582-1210,1582-1215,1582-1410,1582-1415,1582-1608,1582-1610,1582-1615
1582-1210	108T2,109T2,1582-1208,1582-1215,1582-1410,1582-1415,1582-1608,1582-1610,1582-1615
1582-1215	108T2,109T2,1582-1208,1582-1210,1582-1410,1582-1415,1582-1608,1582-1610,1582-1615
1582-1410	109T2,1582-1415,1582-1608,1582-1610,1582-1615
1582-1415	109T2,1582-1410,1582-1608,1582-1610,1582-1615
1582-1608	109T2,1582-1610,1582-1615
1582-1610	109T2,1582-1608,1582-1615
1582-1615	109T2,1582-1608,1582-1610
1714-0402	1714-0405,1714-0602,1714-0605,*SK3026
1714-0405	1714-0602,1714-0605,*SK3026
1714-0602	1714-0605,1714-0802,1714-0805,*SK3026
1714-0605	1714-0602,1714-0802,1714-0805,*SK3026
1714-0802	1714-0805,1714-1002,1714-1005,*SK3026
1714-0805	1714-0802,1714-1002,1714-1005,*SK3026
1714-1002	1714-1005,1714-1202,1714-1205,1714-1402,1714-1405,*SK3026
1714-1005	1714-1002,1714-1202,1714-1205,1714-1402,1714-1405,*SK3026
1714-1202	1714-1205,1714-1402,1714-1405,1714-1602,1714-1605
1714-1205	1714-1202,1714-1402,1714-1405,1714-1602,1714-1605
1714-1402	1714-1405,1714-1602,1714-1605,1714-1802,1714-1805
1714-1405	1714-1402,1714-1602,1714-1605,1714-1802,1714-1805
1714-1602	1714-1605,1714-1802,1714-1805,HST7901,SDT7901
1714-1605	1714-1602,1714-1802,1714-1805,HST7901,SDT7901

Q1 To Replace	Substitute This Type
1714-1802	1714-1805, HST79C1, HST7902, SDT7901, SDT7902
1714-1805	1714-1802, HST7901, HST7902, SDT7901, SDT7902
1716-0602	1716-0605, 1716-0802, 1716-0805, B148004, HST9901, HST9902, KSP1151
1716-0605	1716-0602, 1716-0802, 1716-0805, B148004, HST9901, HST9902, KSP1151
1716-0802	1716-0805, 1716-1002, 1716-1005, B148000, B148004, HST9902, HST9903, KSP1152
1716-0805	1716-0802, 1716-1002, 1716-1005, B148000, B148004, HST9902, HST9903, KSP1152
1716-1002	1716-1005, 1716-1202, 1716-1205, B148000, B148001, HST9903, HST9904, KSP1152
1716-1005	1716-1002, 1716-1202, 1716-1205, B148000, B148001, HST9903, HST9904, KSP1152
1716-1202	1716-1205, 1716-1402, 1716-1405, 1716-1602, 1716-1605, B148001, HST7150, HST9904, KSP1153
1716-1205	1716-1202, 1716-1402, 1716-1405, 1716-1602, 1716-1605, B148001, HST7150, HST9904, KSP1153
1716-1402	1716-1405, 1716-1602, 1716-1605, 1716-1802, HST7150, HST7151, KSP1153
1716-1405	1716-1402, 1716-1602, 1716-1605, 1716-1802, HST7150, HST7151, KSP1153
1716-1602	1716-1605, 1716-1802, HST7151
1716-1605	1716-1602, 1716-1802, HST7151
1716-1802	HST7151, HST7152
1718-0602	1718-0605, 1718-0802, 1718-0805
1718-0605	1718-0602, 1718-0802, 1718-0805
1718-0802	1718-0805, 1718-1002, 1718-1005
1718-0805	1718-0802, 1718-1002, 1718-1005
1718-1002	1718-1005, 1718-1202, 1718-1205
1718-1005	1718-1002, 1718-1202, 1718-1205
1718-1202	1718-1205, 1718-1402, 1718-1405, 1718-1602, 1718-1605
1718-1205	1718-1202, 1718-1402, 1718-1405, 1718-1602, 1718-1605
1718-1402	1718-1405, 1718-1602, 1718-1605, 1718-1802
1718-1405	1718-1402, 1718-1602, 1718-1605, 1718-1802
1718-1602	1718-1605, 1718-1802
1718-1605	1718-1602, 1718-1802
1718-1802	
1723-0405	2N5932, 1723-0610, 1723-0605, 1723-0610, 1743-0610, 1743-0630, 1763-0610, 1763-0620, 1763-0630, HST9201, HST9205, HST9801, *SK3036
1723-0410	2N5932, 1723-0405, 1723-0605, 1723-0610, 1743-0610, 1743-0630, 1763-0610, 1763-0620, 1763-0630, HST9201, HST9205, HST9801, *SK3036
1723-0605	2N5929, 2N5932, 2N5935, 1723-0610, 1723-0805, 1723-0810, 1743-0610, 1743-0630, 1743-0820, 1763-0810, 1763-0820, 1763-0830, 1763-1010, 1763-1030, HST9202, HST9205, HST9206, HST9207, HST9802, HST9803, *SK3036
1723-0610	2N5929, 2N5932, 2N5935, 1723-0605, 1723-0805, 1723-0810, 1743-0610, 1743-0630, 1743-0820, 1763-0810, 1763-0820, 1763-0830, 1763-1010, 1763-1020, 1763-1030, HST9202, HST9205, HST9206, HST9207, HST9802, HST9803, *SK3036
1723-0805	2N5671, 2N5929, 2N5933, 2N5935, 1723-0810, 1723-1005, 1723-1010, 1743-0820, 1743-1010, 1743-1030, 1763-1010, 1763-1020, 1763-1030, 1763-1210, 1763-1220, 1763-1230, HST9202, HST9203, HST9207, HST9803, *SK3036
1723-0810	2N5671, 2N5929, 2N5933, 2N5935, 1723-0805, 1723-1005, 1723-1010, 1743-0820, 1743-1010, 1743-1030, 1763-1010, 1763-1020, 1763-1030, 1763-1210, 1763-1220, 1763-1230, HST9202, HST9203, HST9207, HST9803, *SK3036
1723-1005	2N5671, 2N5930, 2N5933, 2N5934, 2N5936, 1723-1010, 1723-1205, 1723-1210, 1723-1405, 1723-1410, 1743-1010, 1743-1030, 1743-1210, 1743-1410, 1743-1430, 1763-1010, 1763-1020, 1763-1030, 1763-1210, 1763-1220, 1763-1230, 1763-1410, 1763-1420, 1763-1430, HST9202, HST9203, HST9204, HST9207, HST9208, HST9209, HST9803, HST9804, *SK3036
1723-1010	2N5671, 2N5930, 2N5933, 2N5934, 2N5936, 1723-1005, 1723-1205, 1723-1210, 1723-1405, 1723-1410, 1743-1010, 1743-1030, 1743-1210, 1743-1410, 1743-1430, 1763-1010, 1763-1020, 1763-1030, 1763-1210, 1763-1220, 1763-1230, 1763-1410, 1763-1420, 1763-1430, HST9202, HST9203, HST9204, HST9207, HST9208, HST9209, HST9803, *SK3036
1723-1205	2N5671, 2N5930, 2N5933, 2N5934, 2N5936, 1723-1210, 1723-1410, 1723-1410, 1723-1605, 1723-1610, 1743-1220, 1743-1410, 1743-1430, 1763-1210, 1763-1220, 1763-1230, 1763-1410, 1763-1420, 1763-1430, HST9202, HST9203, HST9204, HST9207, HST9208, HST9209, HST9804, *SK3036
1723-1405	2N5931, 2N5934, 2N5937, 1723-1410, 1723-1605, 1723-1610, 1723-1805, 1723-1810, 1723-2005, 1743-1410, 1743-1430, 1743-1620, 1743-1810, 1743-1820, 1743-1830, 1763-1410, 1763-1420, 1763-1430, 1763-1620, 1763-1630, HST9204, HST9205, HST9206, HST9207, HST9208, HST9209, HST9804, *SK3036
1723-1410	2N5931, 2N5934, 2N5937, 1723-1405, 1723-1605, 1723-1610, 1723-1805, 1723-1810, 1723-2005, 1743-1410, 1743-1430, 1743-1620, 1743-1810, 1743-1820, 1743-1830, 1763-1410, 1763-1420, 1763-1430, 1763-1620, 1763-1630, HST9204, HST9205, HST9206, HST9207, HST9208, HST9209, HST9804, *SK3036
1723-1605	2N5931, 2N5937, 1723-1610, 1723-1805, 1723-1810, 1723-2005, 1743-1620, 1743-1810, 1743-1820, 1743-1830, 1763-1610, 1763-1620, 1763-1630, 1763-1810, *SK3036
1723-1610	2N5931, 2N5937, 1723-1605, 1723-1805, 1723-1810, 1723-2005, 1743-1620, 1743-1810, 1743-1820, 1743-1830, 1763-1610, 1763-1620, 1763-1630, 1763-1810, *SK3036
1723-1805	1743-1820, 1743-1830, 1763-1610, 1763-1620, 1763-1630, 1763-1810, *SK3036
1723-1810	1723-1810, 1723-2005, 1743-1810, 1743-1820, 1743-1830, 1763-1810, *SK3036
1723-1810	1723-1805, 1723-2005, 1743-1810, 1743-1820, 1743-1830, 1763-1810, *SK3036
1723-0610	2N5929, 2N5932, 2N5935, 1743-0630, 1743-0820, HST9202
1743-0630	2N5929, 2N5932, 2N5935, 1743-0610, 1743-0820, HST9202
1743-0820	2N5929, 2N5933, 2N5935, 1743-1010, 1743-1030, HST9202, HST9203
1743-1010	2N5930, 2N5933, 2N5934, 2N5936, 1743-1030, 1743-1220, 1743-1410, 1743-1430, HST9202, HST9203, HST9204
1743-1030	2N5930, 2N5933, 2N5934, 2N5936, 1743-1010, 1743-1220, 1743-1410, 1743-1430, HST9202, HST9203, HST9204
1743-1220	2N5930, 2N5931, 2N5934, 2N5936, 1743-1410, 1743-1430, 1743-1620, HST9203, HST9204
1743-1410	2N5931, 2N5934, 2N5937, 1743-1410, 1743-1620, 1743-1810, 1743-1820, 1743-1830, HST9204
1743-1430	2N5931, 2N5934, 2N5937, 1743-1410, 1743-1620, 1743-1810, 1743-1820, 1743-1830, HST9204
1743-1620	2N5931, 2N5937, 1743-1810, 1743-1820, 1743-1830
1743-1810	1743-1820, 1743-1830
1743-1820	1743-1810, 1743-1830
1743-1830	1743-1810, 1743-1820
1748-0610	1748-0630, 1748-0810, 1748-0820, 1748-0830
1748-0630	1748-0610, 1748-0810, 1748-0820, 1748-0830
1748-0810	1748-0820, 1748-0830, 1748-1010, 1748-1030
1748-0820	1748-0810, 1748-0830, 1748-1010, 1748-1030
1748-0830	1748-0810, 1748-0820, 1748-1010, 1748-1030
1748-1010	1748-1030, 1748-1210, 1748-1220, 1748-1230, 1748-1410, 1748-1430
1748-1030	1748-1010, 1748-1210, 1748-1220, 1748-1230, 1748-1410, 1748-1430

TRANSISTOR SUBSTITUTES

1748-1210-1814-320120

To Replace	Substitute This Type
1748-1210	1748-1220, 1748-1230, 1748-1410, 1748-1430, 1748-1610, 1748-1620, 1748-1630
1748-1220	1748-1210, 1748-1230, 1748-1410, 1748-1430, 1748-1610, 1748-1620, 1748-1630
1748-1230	1748-1210, 1748-1220, 1748-1410, 1748-1430, 1748-1610, 1748-1620, 1748-1630
1748-1410	1748-1430, 1748-1610, 1748-1620, 1748-1630, 1748-1810, 1748-1820, 1748-1830
1748-1430	1748-1410, 1748-1610, 1748-1620, 1748-1630, 1748-1810, 1748-1820, 1748-1830
1748-1610	1748-1620, 1748-1630, 1748-1810, 1748-1820, 1748-1830
1748-1620	1748-1610, 1748-1630, 1748-1810, 1748-1820, 1748-1830
1748-1630	1748-1610, 1748-1620, 1748-1810, 1748-1820, 1748-1830
1748-1810	1748-1820, 1748-1830
1748-1820	1748-1810, 1748-1830
1748-1830	1748-1810, 1748-1820
-1761-04	HST9201, HST9205
-1761-06	HST9206
-1761-08	HST9202, HST9203, HST9206, HST9207, HST9208
-1761-10	HST9202, HST9203, HST9204, HST9207, HST9208, HST9209
-1761-12	HST9203, HST9204, HST9208, HST9209
-1761-14	HST9204, HST9209
-1761-16	
1763-0610	1763-0620, 1763-0630, 1763-0810, 1763-0820, 1763-0830, HST9201, HST9205, HST9206, HST9801, HST9802
1763-0620	1763-0610, 1763-0630, 1763-0810, 1763-0820, 1763-0830, HST9201, HST9205, HST9206, HST9801, HST9802, *SK3036
1763-0630	1763-0610, 1763-0620, 1763-0810, 1763-0820, 1763-0830, HST9201, HST9205, HST9206, HST9801, HST9802
1763-0810	1763-0820, 1763-0830, 1763-1010, 1763-1020, 1763-1030, HST92C2, HST9206, HST9207, HST9802, HST9803
1763-0820	1763-0810, 1763-0830, 1763-1010, 1763-1020, 1763-1030, HST92C2, HST9206, HST9207, HST9802, HST9803, *SK3036
1763-0830	1763-0810, 1763-0820, 1763-1010, 1763-1020, 1763-1030, HST9202, HST9206, HST9207, HST9802, HST9803
1763-1010	1763-1020, 1763-1030, 1763-1210, 1763-1220, 1763-1230, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804
1763-1020	1763-1010, 1763-1030, 1763-1210, 1763-1220, 1763-1230, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, *SK3036
1763-1030	1763-1010, 1763-1020, 1763-1210, 1763-1220, 1763-1230, HST92C2, HST9203, HST9207, HST9208, HST9803, HST9804
1763-1210	1763-1220, 1763-1230, 1763-1410, 1763-1420, 1763-1430, 1763-1610, 1763-1620, 1763-1630, HST9203, HST9204, HST9208, HST9209, HST9804
1763-1220	1763-1210, 1763-1230, 1763-1410, 1763-1420, 1763-1430, 1763-1610, 1763-1620, 1763-1630, HST9203, HST9204, HST9208, HST9209, HST9804, *SK3036
1763-1230	1763-1210, 1763-1220, 1763-1410, 1763-1420, 1763-1430, 1763-1610, 1763-1620, 1763-1630, HST9203, HST9204, HST9208, HST9209, HST9804
1763-1410	1763-1420, 1763-1430, 1763-1610, 1763-1620, 1763-1630, 1763-1810, HST9204, HST9209
1763-1420	1763-1410, 1763-1430, 1763-1610, 1763-1620, 1763-1630, 1763-1810, HST9204, HST9209, *SK3036
1763-1430	1763-1410, 1763-1420, 1763-1610, 1763-1620, 1763-1630, 1763-1810, HST9204, HST9209
1763-1610	1763-1620, 1763-1630, 1763-1810
1763-1620	1763-1610, 1763-1630, 1763-1810
1763-1630	1763-1610, 1763-1620, 1763-1810
1763-1810	
1768-0610	1768-0620, 1768-0630, 1768-0810, 1768-0820, 1768-0830
1768-0620	1768-0610, 1768-0630, 1768-0810, 1768-0820, 1768-0830
1768-0630	1768-0610, 1768-0620, 1768-0810, 1768-0820, 1768-0830
1768-0810	1768-0820, 1768-0830, 1768-1010, 1768-1020, 1768-1030
1768-0820	1768-0810, 1768-0830, 1768-1010, 1768-1020, 1768-1030
1768-0830	1768-0810, 1768-0820, 1768-1010, 1768-1020, 1768-1030
1768-1010	1768-1020, 1768-1030, 1768-1210, 1768-1220, 1768-1230
1768-1020	1768-1010, 1768-1030, 1768-1210, 1768-1220, 1768-1230
1768-1030	1768-1010, 1768-1020, 1768-1210, 1768-1220, 1768-1230
1768-1210	1768-1220, 1768-1230, 1768-1410, 1768-1420, 1768-1430, 1768-1610, 1768-1620, 1768-1630
1768-1220	1768-1210, 1768-1230, 1768-1410, 1768-1420, 1768-1430, 1768-1610, 1768-1620, 1768-1630
1768-1230	1768-1210, 1768-1220, 1768-1410, 1768-1420, 1768-1430, 1768-1610, 1768-1620, 1768-1630
1768-1410	1768-1420, 1768-1430, 1768-1610, 1768-1620, 1768-1630, 1768-1810
1768-1420	1768-1410, 1768-1430, 1768-1610, 1768-1620, 1768-1630, 1768-1810
1768-1430	1768-1410, 1768-1420, 1768-1610, 1768-1620, 1768-1630, 1768-1810
1768-1610	1768-1620, 1768-1630, 1768-1810
1768-1620	1768-1610, 1768-1630, 1768-1810
1768-1630	1768-1610, 1768-1620, 1768-1810
1768-1810	
1776-0460	1776-0460, 1776-0660
1776-0460	1776-0460, 1776-0660, 1776-0860
1776-0660	1776-0460, 1776-0860, 1776-0860
1776-0860	1776-0460, 1776-0660, 1776-0860
1776-0860	1776-0460, 1776-0660, 1776-0860
1776-1040	1776-1060, 1776-1240, 1776-1260
1776-1060	1776-1040, 1776-1240, 1776-1260
1776-1240	1776-1260, 1776-1440, 1776-1460, 1776-1640
1776-1260	1776-1240, 1776-1440, 1776-1460, 1776-1640
1776-1440	1776-1460, 1776-1640
1776-1460	1776-1440, 1776-1640
1776-1640	
1814-200120	1814-220120, 1814-250120, 1814-200220, 1814-220220, 1814-250220, 1814-200520, 1814-220520, 1814-250520
1814-220120	1814-220120, 1814-270120, 1814-300120, 1814-300220, 1814-250220, 1814-270220, 1814-300220, 1814-220520, 1814-250520, 1814-300520
1814-250120	1814-220120, 1814-270120, 1814-300120, 1814-300220, 1814-220220, 1814-250220, 1814-270220, 1814-300220, 1814-300520
1814-270120	1814-250120, 1814-300120, 1814-320120, 1814-350120, 1814-250220, 1814-270220, 1814-300220, 1814-320220, 1814-350220, 1814-250520, 1814-270520, 1814-300520, 1814-320520, 1814-350520
1814-300120	1814-270120, 1814-320120, 1814-350120, 1814-370120, 1814-270220, 1814-300220, 1814-320220, 1814-350220, 1814-370220, 1814-300520, 1814-320520, 1814-350520, 1814-370520
1814-320120	1814-300120, 1814-350120, 1814-370120, 1814-300220, 1814-320220, 1814-350220, 1814-370220, 1814-300520, 1814-320520, 1814-350520, 1814-370520

Q 51	To Replace	Substitute This Type
	1814-320120(C)	1814-370220, 1814-300520, 1814-320520, 1814-350520, 1814-370520
	1814-350120	1814-320120, 1814-370120, 1814-320220, 1814-350220, 1814-370220, 1814-320520, 1814-350520, 1814-370520
	1814-37012C	1814-350120, 1814-350220, 1814-37C220, 1814-350520, 1814-370520
	1814-200220	1814-2C0120, 1814-220120, 1814-250120, 1814-220220, 1814-250220, 1814-200520, 1814-220520, 1814-250520
	1814-220220	1814-220120, 1814-250120, 1814-27C120, 1814-300120, 1814-250220, 1814-270220, 1814-300220, 1814-220520, 1814-250520, 1814-270520
	1814-250220	1814-220120, 1814-250120, 1814-270120, 1814-300120, 1814-320120, 1814-220220, 1814-270220, 1814-300220, 1814-320220, 1814-220520, 1814-250520, 1814-270520, 1814-300520, 1814-320520
	1814-270220	1814-250120, 1814-270120, 1814-300120, 1814-320120, 1814-350120, 1814-250220, 1814-300220, 1814-320220, 1814-350220, 1814-250520, 1814-270520, 1814-300520, 1814-320520
	1814-300220	1814-270120, 1814-300120, 1814-32C120, 1814-35C120, 1814-37C120, 1814-270220, 1814-320220, 1814-350220, 1814-37C220, 1814-270520, 1814-300520, 1814-320520, 1814-350520, 1814-370520
	1814-320220	1814-300120, 1814-320120, 1814-350120, 1814-37C120, 1814-300220, 1814-350220, 1814-370220, 1814-300520, 1814-320520, 1814-350520, 1814-370520
	1814-350220	1814-300120, 1814-350120, 1814-370120, 1814-320220, 1814-350220, 1814-370220, 1814-320520, 1814-350520, 1814-370520
	1814-370220	1814-350120, 1814-370120, 1814-350220, 1814-350520, 1814-370520
	1814-200520	1814-200220, 1814-250220, 1814-250120, 1814-200220, 1814-220220, 1814-250220, 1814-220520, 1814-250520
	1814-220520	1814-220120, 1814-250120, 1814-27C120, 1814-300120, 1814-220220, 1814-250220, 1814-270220, 1814-300220, 1814-250520, 1814-270520, 1814-300520
	1814-250520	1814-220120, 1814-250120, 1814-270120, 1814-300120, 1814-320120, 1814-220220, 1814-250220, 1814-270220, 1814-300220, 1814-320220, 1814-220520, 1814-270520, 1814-300520, 1814-320520
	1814-270520	1814-250120, 1814-270120, 1814-300120, 1814-320120, 1814-350120, 1814-250220, 1814-300220, 1814-320220, 1814-350220, 1814-250520, 1814-270520, 1814-300520, 1814-320520
	1814-300520	1814-270120, 1814-300120, 1814-32C120, 1814-350120, 1814-370120, 1814-27C220, 1814-300220, 1814-320220, 1814-350220, 1814-370220, 1814-270520, 1814-320520, 1814-350520, 1814-370520
	1814-320520	1814-300120, 1814-320120, 1814-350120, 1814-370120, 1814-300220, 1814-320220, 1814-350220, 1814-370220, 1814-320520, 1814-350520, 1814-370520
	1814-350520	1814-350220, 1814-370220, 1814-300520, 1814-350520, 1814-370520
	1814-370220	1814-350120, 1814-370120, 1814-350220, 1814-370220, 1814-350520, 1814-370520
	1814-370520	1814-350120, 1814-370120, 1814-350220, 1814-370220, 1814-350520
	3907	SEE 2N404A
	40022	2N420, 25B149, 40050, 40051, 40254, 40462, 40623, *HEP628, *ECG104, *TR-01, *GE-3, *DS26, *SK3009, *PT40
	40050	25B338, 40051, 40462, 40623, 40626, NKT402, NKT404, NKT405, *SK3009, *PT40, *DS503, *ECG104, *HEP530, *GE-3
	40051	25B338, 40426, NKT402, NKT404, NKT405, *GE-3, *HEP232, *ECG121, *DS503, *PT40, *SK3009
	40053	SEE 2N3053
	40080	*SK3018, *DS-81, *SN80, *ECG128, *HEP53, *GE-20, *TK-25
	40081	*GE-20, *HEP713, *ECG128, *SN80, *DS-81
	40082	40446, *ECG128, *HEP53001
	40084	2N2434, *HEP50, *ECG123A
	40217	SEE 2N3261
	40218	SEE 2N3261
	40219	SEE 2N3261
	40220	SEE 2N3261
	40221	SEE 2N3261
	40222	SEE 2N3261
	40231	2N2331, *HEP50, *ECG161, *SN80, *DS-66, *SK3020, *GE-20
	40232	40233, 7N80, *GE-17, *SK3020, *DS-66, *EN10, *ECG161, *HEP50
	40233	40232, 7N80, *HEP50, *ECG161, *EN10, *SK3038, *GE-17
	40234	2N2331, 40231, *GE-17, *SK3020, *EN10, *DS-66, *ECG161, *HEP50
	40235	40236, 40237, *HEP56, *ECG161, *EN10
	40236	40237, *EN10, *ECG161, *HEP56, *GE-17
	40237	40235, 40236, *GE-17, *HEP56, *ECG161, *EN10
	40238	40235, 40236, 40237, 40240, 40472, 40474, 40477, 40478, 40480, *EN10, *ECG161, *HEP56, *GE-17
	40239	40235, 40238, 40472, 40478, *GE-17, *HEP56, *ECG161, *EN10
	40240	40235, 40236, 40237, 40238, 40472, 40474, 40477, 40478, 40480, *EN10, *ECG161, *HEP56, *GE-17
	40242	*GE-17, *HEP55, *ECG161, *EN10, *DS-61, *SK3018
	40243	2N5181, 40235, 40236, 40237, 40238, 40240, 40242, 40244, 40413, 40472, 40474, 40477, 40478, 40480, *EN10, *ECG161, *HEP56, *GE-17, *TR-24
	40244	2N5181, 40235, 40237, 40238, 40239, 40240, 40242, 40413, 40472, 40474, 40477, 40478, 40480, *TR-24, *GE-17, *HEP56, *ECG161, *SK3018, *DS-81, *EN10
	40245	2N5181, 40236, 40237, 40240, 40474, 40477, 40480, *EN10, *DS-81, *SK3018, *ECG161, *HEP55, *GE-17
	40246	2N3337, 2N3338, 2N3339, 40235, 40238, 40239, 40242, 40243, 40244, 40413, 40472, 40478, *GE-17, *TR-24, *HEP55, *ECG161, *EN10
	40250	2N4231, 2N4232, *PN66, *SK3028, *ECG152, *HEP241, *GE-23
	40250V1	
	40251	2N3235, 2N3667, 2N5302, B170002-BLK, B170002-BRN, B170020, HST9201, HST9205, 4J3771, *ECG104
	-40251	2N2431, 25B415, NKT211, *ECG102A, *HEP253
	40254	2N420, 25B149, 40022, 40050, 40051, 40462, 40623, *HEP626, *ECG104, *GE-16, *TR-01, *SK3009, *DS-503
	40261	2N2190, 2N2191, 25B177, *SK3018, *DS-56, *HF35, *GE-9, *ECG161, *HEP738
	40262	40489, *ECG126, *GE-9, *HF35, *DS-56
	40263	2N2613, 40490, *DS-26, *SK3004, *GE-2, *ECG126, *HEP254
	-40264	*ECG124, *GE-12, *SK3021
	-40268	*HEP3, *ECG160
	40269	2N397, 2N417, 2N598, 2N599, 2N1307, 2N1309, 2N1316, 2N1355, 2N1356, 2N1357, 2N1998, 25B186, 25B188, SF-1223, *ECG100, *HEP253, *TR-05
	40279	2N3632, 40306, 0665
	40280	2N4427, 2N4874, 2N5109, 2N5421, 2N5422, *GE-20, *ECG123A, *SN80
	40281	2N3926, 2N5423, 2N5424, 2N5424A
	40282	2N3927, 2N5102, 2N5424A

TRANSISTOR SUBSTITUTES

40283-40421

Q1 To Replace	Substitute This Type
-40283	*SN80,*ECG123A,*GE-20,*HEP53
40290	2N3924,2N5422,*GE-20,*ECG123,*SN80
40291	2N3926,2N4932,2N5423,2N5424,40281
40292	2N3926,2N3927,2N4932,2N5424,40282
40294	2N3570,2N3600,2N3839,40414,MT1061A,*EN10,*ECG108,*GE-17,*HEP56
40295	40413,*HEP56,*ECG108
-40296	2N3570,2N3600,2N3839,40294,40414,MT1061A
40305	
40306	2N3632,40279,40665
40307	2N5016
40309	40311,40315,40323,40611,40616,*ECG128,*GE-20,*SN80
40310	2N4231,40250,40316,40324,40621,40622,40624,*ECG152,*HEP241
40311	40314,40315,40616,*ECG123,*SN80,*GE-20
40312	2N4232,2N5293,2N5295,2N5297,2N5427,2N5491,2N5493,2N5495,40364,*ECG152,*HEP241
40313	40318,40322,*HEP240,*ECG124
40314	*ECG128,*GE-20,*SN80
40315	40314,40616,*SN80,*SK3024,*GE-20,*ECG128,*HEP53
40316	2N4231,2N5295,2N5491,2N5495,40250,40622,40624,*HEP241,*ECG152,*GE-23,*SK3026
40317	2N3053,2N3724A,40407,*ECG128
40318	40322,*ECG124,*HEP240
40319	2N3244,2N4037,2N4890,40406,40537
40320	2N2017,2N2270,2N3053,2N3724A,7A32,40317,40326,40407,*ECG128,*SN80,*GE-20
40321	40327,*GE-20,*SN80,*ECG128
40322	40318,*ECG124,*SN80,*GE-12,*HEP240
40323	40309,40311,40315,40611,40616,*GE-20,*SN80,*ECG128
40324	2N4231,40250,40310,40316,40621,40622,40624,*ECG152,*HEP241
40325	2N3235,2N3667,2N5301,156-043,156-044,1582-0508,1582-0510,40251,8170002-BLK, 8170002-BRN,8170020,HST9201,HST9205,HST9210,MJ3771,*ECG130
40326	2N2017,2N2270,2N3053,2N3724A,7A32,40317,40320,40407,*ECG128,*SN80,*GE-20
40327	40321,*GE-20,*SN80,*ECG128
40328	*ECG124,*HEP240
40329	2N2923,2N3298,2N3393,2N3414,2N3845,2N3845A,2N3856A,2N3859,2N4074,2N4138,2N4873, 2N5136,2N5137,2N5224,25C68,25C282,25C323,25C350,25C372,25C400,25C454,25C458, 25C499,25C460,25C639,25C764,40398,BC173C,BSY61,MPS6513,MPSA10-GRN,MPSA10-WHT, MPSA20-GRN,MPSA20-WHT,MPSH10,MPSH11,PET3002,PET4001,SE3005,SE4001,*HEP254, *ECG102A,*TR-24
40340	
40341	
-40342	
-40343	
40346	2N2726
40346V1	
40346V2	
40347	2N2107,2SD120,*ECG128,*HEP243
40347V1	
40347V2	2N2197
40348	2N1613B,2N2102,2N2102A,2N4000,2N4001,2SD121,40366,40367,*HEP243,*ECG128
40348V1	
40348V2	2N2201
40349	2N2726
40349V1	
40349V2	
40354	2N4068,TI5101
40355	2N3500,2N3609,2N4925,MM2259,MM3009,*ECG154
40359	2N827,2N2635,25B186,25B188,*ECG102,*GE-2,*SK3004,*DS-26
40360	2N3725A,40408,40635,*ECG128
40361	*ECG128,*HEP243
40362	2N4404
40363	2N3236,2N5303,2N5629,156-084,156-104,40411,8170005-BLK,8170005-BRN,8170008-BLK, 8170008-BRN,DT5103,DT5105,HST9202,HST9206,HST9207,MJ3772
40364	2N5428
40366	2N1613B,2N2102,2N2102A,2N4001,*ECG128
40367	*ECG128
40368	2N1486,52N1486
40369	2N1490,2N3446,181T2,8DY248,HST9202,HST9203,HST9803,HST9804
40372	
40373	
40374	
40375	
40385	*ECG128
40389	
40390	
40391	
40392	
40394	
40395	*ECG102A,*HEP254
40397	*ECG123A,*HEP55
40398	2N3241A,2N3242A,2N4074,*HEP55,*ECG123A
40399	40397,*ECG123A
40400	2N3241A,40398,*ECG123A,*HEP55
-40403	2N383,2N396A,2N397,2N1348,2N1349,2N1350,2N1351,2N1355,2N1356,2N1357,*ECG100
-40404	2N708,2N743A,2N744A,2N914,2N2710,2N3210,2N3261,2N3510,2N3511,2N3648,40405, MP56532,*ECG123A
40405	2N3241,2N3510,2N3511,2N3648,*ECG123A
40406	2N4890,*0362,40537,*ECG128,*HEP242,*GE-21
40407	2N3053,2N3724A,40360,40635,*GE-20,*HEP243,*ECG128
40408	*ECG128,*HEP714,*GE-20
40409	*GE-18,*ECG128
40410	*ECG128,*GE-21
40411	*GE-14,*SK3036
40412	*ECG128
40412V1	
40412V2	
40413	40295
40414	2N2857,2N3570,2N3600,2N3839,2N5053,2N5054,25C567,40294,A485,A490,MT1061A
40421	2N2147,*GE-16

Q1 To Replace	Substitute This Type
-40422	*GE-12,*ECG124,*SK3021,*PN66,*HEP240
-40423	*SK3021,*ECG124,*GE-12
-40424	*GE-12,*ECG124,*SK3021,*PN66,*HEP241
-40425	*SK3021,*ECG124,*GE-12
-40426	*GE-12,*ECG124,*SK3021,*PN66,*HEP240
-40427	*SK3021,*ECG124,*GE-12
40439	*ECG127,*GE-25,*SK3035
40440	*SK3035,*GE-25,*ECG127
-40444	2N5038,2N5039
40446	40082
40450	40451
40451	
40452	40451,40459
40453	
-40454	40450,40451,40452
-40455	40453,8CY58
40456	40456
40458	
40459	*ECG128,*GE-23,*SK3040,*HEP243
40462	25B338,40050,40051,40623,40626,NKT402,NKT404,NKT405,*ECG104,*SK3009,*GE-16
-40464	25C494,*GE-19,*SK3027,*HN100,*ECG130,*HEP247
-40465	25C494,KSP1174,SDT7601,*HEP247,*ECG130,*HN100,*SK3027,*GE-19
-40466	25C494,25C521A,KSP1174,SDT7601,*GE-19,*HN100,*ECG130,*HEP247
-40469	2N5181,40472,40474,40477,40478,40480,*ECG108
-40470	2N5181,40472,40474,40477,40478,40480,*ECG108
-40471	40472,40478,*ECG130,*EN10,*GE-17
40472	40474,40477,40478,40480,*ECG108
-40473	40472,40474,40477,40478,40480
40474	40472,40477,40478,40480
-40475	2N5181,40472,40474,40477,40478,40480,*ECG108
-40476	40472,40478,*ECG123,*HEP56
40477	2N5181,40472,40474,40478,40480,*HEP55,*ECG123A
40478	2N5181,40472,40474,40477,40480,*ECG108,*HEP56,*GE-20,*SK3018
-40479	2N5181,40472,40474,40477,40478,40480,*SK3018,*GE-20,*HEP56,*ECG104
40480	2N5181,40472,40474,40477,40478,*ECG108,*HEP56,*GE-20
-40481	*GE-20,*HEP56,*ECG108
-40482	40472,40478,*ECG108,*HEP56,*GE-20
40487	*GE-1,*HEP636,*ECG160
40488	2N7618,2N964,2N964A,2N965,2N966,2N967,2N972,2N973,2N974,2N985,2N1526,2N2273, 2N2401,2N2402,2N2795,2N3320,2SA331,2SA350,2SA355,2SA413,2SA451,5F.7317,5F.1320, *ECG126,*HEP639,*GE-1
40489	*GE-1,*HEP636,*ECG160
40490	*ECG102A,*HEP251,*GE-2
-40491	*GE-12,*HEP240,*ECG124,*SK3021
-40517	2N3570,2N3600,2N3839,40294,40414,MT1061A,*ECG123
-40518	2N3570,2N3600,2N3839,40294,40414,MT1061A,*ECG123
40519	2N3570,2N3319,2N5187,*ECG123,*TR-21
40537	2N4405,2N4890
40538	2N3245,2N3763,2N5022,MM3726
40539	2N3252,2N3253,2N3468,2N3734,2N3736,MM3725,*ECG128
40542	2N5034,2N5036,40543,40633
40543	2N5036,40633
40544	
-40546	*ECG124,*GE-12,*SK3021,*HEP240
-40547	*HEP240,*SK3021,*GE-12,*ECG124
40577	
40578	*ECG128
40581	40582
40582	40581
40594	
40595	
40605	2N3553
40608	
40611	40616
40612	2N420,25B149,40022,40050,40254,40462,*TR-01
40613	40618,40621,40622
40616	
40618	40621,40622
40621	40618,40622
40622	2N5295,2N5491,2N5495
40623	25B338,40051,40626,NKT402,NKT404,NKT405
40624	2N5491,2N5495,40632
40625	40628
40626	25B338,40051,NKT402,NKT403,NKT404,NKT405
40627	2N5491,2N5493,2N5495,40632
40628	40625
40629	40621,40622,40630,40631
40630	2N5295,2N5491,2N5495,40622,40631
40631	2N5295,2N5491,2N5495
40632	2N5491,2N5493,2N5495
40633	2N5036
40634	2N4314
40635	
40636	2N3236,2N5629,2N5630,108T2,156-104,156-124,HST9202,HST9203,HST9207,HST9208, HJ3772
40637	*TR-24
40665	2N3632
40666	2N3375
95101	SEE 2N1526
95102	SEE 2N1524
95103	SEE 2N1524
95107	SEE 2N1526
95108	SEE 2N1745
95109	SEE 2N501
95110	SEE 2N501
95111	SEE 2N1865

TRANSISTOR SUBSTITUTES

95112-A417

Q1 To Replace	Substitute This Type
95112	SEE 2N2711
95113	SEE 2N2712
95114	SEE 2N193
95115	SEE 2N211
95116	SEE 2N769
95117	SEE 2N769
95201	SEE 2N406
95202	SEE 2N649
95203	SEE 2N408
95204	SEE 2N270
95208	SEE 2N2374
95209	SEE 2N2376
95212	SEE 2N321
95214	SEE 2N406
99101	SEE 25A84
99102	SEE 25A83
99103	SEE 25A89
99104	SEE 25A15
99201	SEE 25B75
99203	SEE 25B77
99204	SEE 25B89
A3T2221	A3T2221A,FX3725,FX4047
A3T2221A	FX3725,FX4047
A3T2222	A3T2222A,FX3300
A3T2222A	A3T2222A,FX3300
A3T2484	A3T2222A,FX2483,FX4960
A3T2894	FX2894,FX2894A
A3T2906	A3T2906A
A3T2906A	A3T2906
A3T2907	A3T2907A,FX3503
A3T2907A	A3T2907,FX3503
A3T3011	FX3014
A3T918	FX918
A3T929	FX4046
A3T930	A3T2484,FX2483,FX4960
-A104	2N2331,2N2569,2N2570,2N3241A,2N5224,40398,BC1708,BC173C,PET4001,*DS-66,*SK3020,*ECG123A,*HEP724,*GE-10
-A106	2N2331,2N2569,2N2570,2N3241A,2N3959,2N3960,2N5224,40398,BC1708,BC173C,PET4001,*SK3020,*DS-66,*ECG123A,*TR-24,*GE-20,*HEP731
-A108	2N4124,2N4245,40397,A1588,A1598,A322,BC108,BC108A,BC172A,BCY58A,BCY58B,PET2002,*N80,*EN30,*DS-66,*SK3020,*ECG123A,*TR-10,*HEP724
-A110	2N5088,2N5135,A1588,A159C,BC108B,BC109,BC109C,BCY58D,PET4003,*HEP730
-A111	2N2388,2N3242A,2N3566,2N4124,2N4265,2N5826,2SC316,2SC367,2SC587,2SC587A,A1578,A322,BC107,BC107A,BC108,BC108A,BC171A,BC172A,BCY58A,BCY58B,BCY59A,BCY59B,8FY39-3,G1-3566,MPS3694,MPS6514,MPS6520,MPSA10-BLU,MPSA10-YEL,MPSA20-BLU,MPSA20-YEL,PET1002,PET2002,TN80,*HEP726,*EN30,*GE-10,*ECG123A
-A115	2N408,2N708A,2N744A,2N759,2N780,2N784,2N784A,2N914,2N2318,2N2319,2N2366A,2N2387,2N3009,2N3011,2N3015,2N3016,2N3210,2N3340,2N3605A,2N3606A,2N4123,2N4137,2N4264,2N4275,2N5029,2N5030,2SC67,2SC321,2SC356,2SC427,2SC595,2SC601,2SC601N,2SC689,A321,BC173B,8FY39-1,GET708,GET914,GET2369,GET3013,GET3014,GET3646,MPS3693,MPS6512,MPSA10-RED,MPSA20-RED,MT1060A,PET1001,PET2001,PT2760,TIS87,*ECG128,*GE-20,*TR-21,*SK3020,*DS-66
-A116	2N4074,2N4873,2N5209,2N5825,2SC367,BC173C,8FY39-2,MPS6513,MPSA10-GRN,MPSA10-WHT,MPSA20-GRN,MPSA20-WHT,PET4001,*HEP724
-A130	2N738A,2N912,2N1572,2N2311,2N2517,A777,BF177,BF656,SF.T186
A141	*ECG123A,*HEP724
A142	*HEP725,*ECG123A
A143	*ECG123A,*HEP726
A151	
A152	
A153	
A157B	2N4953,2N5370,BC107B,BC1718,BCY59C,*HEP728,*ECG123A
A157C	
A158B	A159B,BC108B,BC109,BC109C,BC172B,BCY58C,*SK3020,*GE-10,*ECG123A,*HEP55
A158C	A159C,BC108C,BC109B,BC172C,*HEP737,*ECG123A,*GE-10,*SK3020
A159B	A158B,BC108B,BC109,BC109C,BC172B,BCY58C,*SK3020,*GE-20,*ECG123A,*HEP55
A159C	A158C,BC108C,BC109B,BC172C,*HEP737,*ECG123A
A177	2N2898,2N2907,2N2907A,2N3251,2N3251A,2N3486,2N3466A,2N3505,2N3645,2N3672,2N3673,2N4143,2N4228,2N5375,2N5817,2N5819,2N5823,2N6005,2SA603,BSW75,D29E05,D29E06,D29E10,GT2908,FT3644,GET2906,GET2907
A178A	2N3906,2N4034,2N4035,2N5244,2N5375,2N5378,2N5379,2N6001,A1788,A179A,BC178,BC179,BCY78,BSW73,MM3906,*ECG159,*HEP52
A178B	2N3906,2N4034,2N4035,2N5244,2N5375,2N5378,2N5379,2N6001,A178A,A179A,BC178,BC179,BCY78,BSW73,MM3906,*HEP717,*ECG159
A179A	2N3906,2N4034,2N4035,2N5244,2N5375,2N5378,2N5379,2N6001,A178A,A178B,BC178,BC179,BCY78,BSW73,MM3906,*ECG159,*HEP52
A179B	2N5244,2N5378,2N5379,2N6003,2N6009,BC179,BC259,BCY78,*HEP717,*ECG159
A201	
A202	
A210	
A211	
-A306	2N3241A,2N3242A,*GE-17,*EN10,*ECG123A,*HEP50
-A307	*HEP50,*ECG123A,*EN10,*GE-17
-A310	A778,*ECG154
-A311	2N2311,A777,BF177,8FY65,*ECG128,*TR-25
A321	2N760,2N916,2N916A,2N2331,2N2501,2N3013,2N3014,2N4123,2N4264,2N5824,2SC67,2SC68,2SC318,2SC601N,2SC639,2SC764,*TR-24,*ECG108
A322	2N3566,2SC587,2SC587A,A1578,BC107B,BC108B,BC109,BC109C,BC171B,BC172B,BCY58C,BCY59C,G1-3566,PET4002
-A323	2N2586,2N317,TIS97
-A324	2N511
-A344	2N743,2N5187,*ECG123A,*TR-21,*GE-17,*EN10,*HEP50
-A345	2N743,*HEP50,*EN10,*GE-17,*TR-21,*ECG123A
-A346	2N743,2N2319,2N2319,2N3011,2N5187,*ECG123A,*TR-21,*GE-17,*EN10,*HEP50
A415	*HEP734,*ECG108,*TR-24,*GE-17,*SK3018,*EN10,*DS-74
A617	*EN10,*GE-17,*TR-22,*ECG108,*HEP734

Q1 Q2	To Replace	Substitute This Type
A418	A417,*ECG108,*TR-22,*GE-17,*EN10	
A419	40242,A420,BF184,*EN10,*GE-17,*TR-24,*ECG108	
A420	A419,BF184,*ECG108,*GE-17,*EN10	
A430		
A467	2N3933,2N4259,2N5181,2SC477,40472,40474,40477,40478,40480,8F115,*EN10,*ECG108, *GE-17,*HEP56	
A473	*HEP56,*GE-17,*ECG108,*EN10,*SK3018	
A482	*GE-17,*EN10,*ECG161,*HEP709	
A483	*ECG161,*EN10,*GE-17	
A484	*GE-17,*EN10,*ECG161,*HEP709	
A485	2N3750,2N3600,2N3839,40294,40414,A490,MT1061A,*ECG128	
A490	2N3750,2N3600,2N3839,40294,40414,A485,MT1061A,*ECG128,*HEP709	
A492	MT1061,*HEP709,*ECG161	
A496		
A497		
A580-040215	A580-040315,A580-040515	
A580-040315	A580-040215,A580-040515	
A580-040515	A580-040215,A580-040315	
A580-080215	A580-080315,A580-080515	
A580-080315	A580-080215,A580-080515	
A580-080515	A580-080215,A580-080315	
A580-120215	A580-120315,A580-120515,A580-160215,A580-160315,A580-160515	
A580-120315	A580-120215,A580-120515,A580-160215,A580-160315,A580-160515	
A580-120515	A580-120215,A580-120315,A580-160215,A580-160315,A580-160515	
A580-160215	A580-160315,A580-160515,A580-180215,A580-180315,A580-180515,A580-200215, A580-200315,A580-200515	
A580-160315	A580-160215,A580-160515,A580-180215,A580-180315,A580-180515,A580-200215, A580-200315,A580-200515	
A580-160515	A580-160215,A580-160315,A580-180215,A580-180315,A580-180515,A580-200215, A580-200315,A580-200515	
A580-180215	A580-180315,A580-200215,A580-200315,A580-200515,A580-220215, A580-220315,A580-220515,A580-240215,A580-240315,A580-240515	
A580-180315	A580-180215,A580-180515,A580-200215,A580-200315,A580-200515,A580-220215, A580-220315,A580-220515,A580-240215,A580-240315,A580-240515	
A580-180515	A580-180215,A580-180315,A580-200215,A580-200315,A580-200515,A580-220215, A580-220315,A580-220515,A580-240215,A580-240315,A580-240515	
A580-200215	A580-200315,A580-200515,A580-220215,A580-220315,A580-220515,A580-240215, A580-240315,A580-240515	
A580-200315	A580-200215,A580-200515,A580-220215,A580-220315,A580-220515,A580-240215, A580-240315,A580-240515	
A580-200515	A580-200215,A580-200315,A580-220215,A580-220315,A580-220515,A580-240215, A580-240315,A580-240515	
A580-220215	A580-200215,A580-200315,A580-200515,A580-220315,A580-220515,A580-240215, A580-240315,A580-240515	
A580-220315	A580-200215,A580-200315,A580-200515,A580-220215,A580-220515,A580-240215, A580-240315,A580-240515	
A580-220515	A580-200215,A580-200315,A580-200515,A580-220215,A580-220315,A580-240215, A580-240315,A580-240515	
A580-240215	A580-220215,A580-220315,A580-220515,A580-240315,A580-240515	
A580-240315	A580-220215,A580-220315,A580-220515,A580-240215,A580-240515	
A580-240515	A580-220215,A580-220315,A580-220515,A580-240215,A580-240315	
-A667-GRN	2N2926-GRN,2N3391,2N3391A,2N3395-MHT,2N3415,2N6002,2N6008,2SC368,2SC369,91T6, 98T2,8C108B,8C109,8C109C,8C168,8C169,8C170C,8CY58C,8CY58D,G1-3900,G1-3900A, MPS3395,PBC108C,PBC109C,PET4002,PET4003,SE4002,SE4010	
-A667-ORG	2N2172,2N2714,2N2924,2N2925,2N2926-YEL,2N3241A,2N3392,2N3395-YEL,2N3414,2N3721, 2N4124,2N4256,2N4265,2N5172,2N5224,2N6000,2SC454,2SC458,2SC528,92T6,93T6,40232, 40233,40398,40400,8C108A,8C170B,8C172A,8C173C,8CY58A,G1-3721,MPS2714,MPS2926-GRN, MPS2926-YEL,MPS3393,MPS5172,PBC108A,TN80	
-A667-RED	2N744,2N2331,2N2432,2N2569,2N2570,2N2923,2N3394,2N4138,2N4264,2SC400,2SC499, 2SC460,2SC461,40231,40234,85Y61,G1-2712,MPS2926-ORG,PT720,*ECG108,*TR-24	
-A667-YEL	2N2926-GRN,2N2926-YEL,2N3392,2N3395-YEL,2N3415,2N3565,2N4286,2N5172,2SC368, 2SC369,92T6,98T2,40397,40399,A158B,A159B,8C108,8C109C,8C168,8C170C,8C172B, 8CY58A,8CY58B,8CY58C,G1-3415,G1-3721,MPS3392,MPS3395,MPS5172,PBC108B,PBC109B, PET4002	
-A668-GRN	2N2926-GRN,2N3391,2N3391A,2N3395-MHT,2N3415,2N6002,2N6008,2SC368,2SC369,91T6, 98T2,8C108B,8C109,8C109C,8C168,8C169,8C170C,8CY58C,8CY58D,G1-3900,G1-3900A, MPS3395,PBC108C,PBC109C,PET4002,PET4003,SE4002,SE4010	
-A668-ORG	2N2172,2N2714,2N2924,2N2925,2N2926-YEL,2N3241A,2N3392,2N3395-YEL,2N3414,2N3721, 2N4124,2N4256,2N4265,2N5172,2N5224,2N6000,2SC454,2SC458,2SC528,92T6,93T6,40232, 40233,40398,40400,8C108A,8C170B,8C172A,8C173C,8CY58A,G1-3721,MPS2714,MPS2926-GRN, MPS2926-YEL,MPS3393,MPS5172,PBC108A,TN80	
-A668-YEL	2N2926-GRN,2N2926-YEL,2N3392,2N3395-YEL,2N3415,2N3565,2N4286,2N5172,2SC368, 2SC369,92T6,98T2,40397,40399,A158B,A159B,8C108,8C109C,8C168,8C170C,8C172B, 8CY58A,8CY58B,8CY58C,G1-3415,G1-3721,MPS3392,MPS3395,MPS5172,PBC108B,PBC109B, PET4002	
-A669-GRN	2N2926-GRN,2N3391,2N3391A,2N3395-MHT,2N3415,2N6002,2N6008,2SC368,2SC369,91T6, 98T2,8C108B,8C109,8C109C,8C168,8C169,8C170C,8CY58C,8CY58D,G1-3900,G1-3900A, MPS3395,PBC108C,PBC109C,PET4002,PET4003,SE4002,SE4010	
-A669-YEL	2N2926-GRN,2N2926-YEL,2N3392,2N3395-YEL,2N3415,2N3565,2N4286,2N5172,2SC368, 2SC369,92T6,98T2,40397,40399,A158B,A159B,8C108,8C109C,8C168,8C170C,8C172B, 8CY58A,8CY58B,8CY58C,G1-3415,G1-3721,MPS3392,MPS3395,MPS5172,PBC108B,PBC109B, PET4002	
A747		
A748	*TR-21,*GE-20,*ECG123A,*SK3020	
A749	*SK3020,*ECG123A,*GE-20	
A757		
A758	8C158,8C159	
A759	A758,8C158,8C159	
A777	MM3000	
A778	MM3001	
A779	MM3002,MM3003	
A1238	2N3242A,2N5826,TN80	
A1243	SEE 2N3399	
-A1379	85Y63,*ECG123A,*TR-25,*GE-20,*SN80,*DS-66,*SK3020,*HEP50	
-A1380	8CY58,8CY59,8CY66,*SK3020,*GE-20,*ECG123A	
A1383	*ECG126,*GE-9,*DS56,*HF35,*HEP3	

TRANSISTOR SUBSTITUTES

A1384-ADY27

Q1 To Replace	Substitute This Type
-A1384	2N838, 2N2957, 2N3323, 2N3324, 2N3325, *HEP635, *HF75, *DS-41, *SK3007, *GE-9, *ECG126
AA1	REFER TO SECTION 2
AA2	REFER TO SECTION 2
AA3	REFER TO SECTION 2
AA4	REFER TO SECTION 2
AA5	REFER TO SECTION 2
AC105	SEE AC117
AC106	SEE AC117
AC107	2S875, 2S8173, 2S8175, 2S8176, 2S8178, 2S8186, 2S8188, OC44, OC45, OC47, SF. T307, SF. T308, SF. T323, *ECG160, *GE-9, *TR-05, *SK3004, *DS26, *HF35, *HEP3, *AA1
AC116	AC123, *GE-2, *ECG102A, *SK3004, *DS26, *AT20M, *HEP254
AC117	*HEP254, *AT20M, *DS26, *SK3004, *ECG102A, *GE-2
AC121	AC153, *HEP254, *ECG102A
AC122-GRN	2S8370A, AC122-VIO, AC122/30-GRN, AC122/30-VIO, *TR-05, *GE-2, *SK3004, *DS26, *HEP254, *ECG102A
AC122-RED	AC122-YEL, AC122/30-RED, AC122/30-YEL, ACY23, ACY32, *ECG102A, *HEP254, *DS26, *SK3004, *GE-2, *TR-05
AC122-VIO	AC122-WHT, AC122/30-VIO, AC122/30-WHT, *GE-2, *SK3004, *DS26, *HEP254
AC122-WHT	AC122/30-WHT, *HEP254, *DS26, *SK3004, *GE-2
AC122-YEL	AC122-GRN, AC122/30-GRN, AC122/30-YEL, ACY23, ACY32, *GE-2, *TR-05, *SK3004, *DS26, *HEP254, *ECG102A
AC122/30-GRN	AC122/30-VIO
AC122/30-RED	AC122/30-YEL
AC122/30-VIO	AC122/30-WHT
AC122/30-YEL	AC122/30-GRN
AC123	*ECG102A, *HEP254, *DS26, *SK3004, *AT20M, *GE-2
AC124	*DS-26, *HEP50, *ECG102A
AC125	*ECG102A, *HEP254, *DS-56, *AT20M, *SK3004, *GE-2
AC126	*GE-2, *SK3004, *AT20M, *DS-25, *HEP253, *ECG102A
AC127	*ECG103A, *HEP641, *DS-66, *NA20, *SK3010, *GE-8
AC128	AC153, *DS-26, *SK3004, *AT20M, *GE-2, *HEP254, *ECG158
-AC129	*HEP3, *ECG160, *GE-9, *TR-05, *HF35, *DS56
AC130	2N797, 2SC98, 2SC92, 2SD75, 2SD105, *DS75, *NR10, *SK3010, *TR-08, *GE-5, *ECG101, *HEP641
AC131	AC131/30, *HEP254, *ECG102A, *GE-2, *AT20M, *DS26
AC131/30	
AC132	*DS26, *AT20M, *SK3004, *GE-2, *ECG102A, *HEP254
AC150-GRN	2N6214, 2N2953, 2S844, 2S8439, 2S8440, AC122-GRN, AC122-VIO, AC122/30-GRN, AC122/30-VIO, *TR-05, *GE-2, *ECG102A, *DS26, *SK3004, *HEP254
AC150-YEL	2N6214, 2S840, 2S854, 2S856, 2S858, 2S877, AC122-GRN, AC122-YEL, AC122/30-GRN, AC122/30-YEL, AC150-GRN, ACY23, ACY32, *HEP254, *SK3004, *DS26, *ECG102A, *GE-2, *TR-05
AC151	AC151R, AC152, ASY70, *GE-2, *ECG102A, *DS-26, *SK3004, *HEP254
AC151R	AC151, AC152, ASY70, *HEP254, *SK3004, *DS-26, *ECG102A, *GE-2
AC152	AC153, *GE-2, *ECG158, *DS-26, *SK3004, *AT20M, *HEP254
AC153	ACY33, *HEP254, *SK3004, *DS-26, *ECG158, *GE-2
AC153K	AC153, ACY33, *GE-2, *ECG158, *SK3004, *HEP254
AC160-GRN	2N2429, 2N2706, 2N2953, 2S8118, 2S8385, 2S844, 2S847, 2S8345, 2S8346, 2S8347, 2S8348, 2S8371, 2S8400, 2S8439, 2S8440, 2S8443, 2S8444, AC160-VIO, *TR-05, *ECG102A, *HEP3
AC160-RED	2N109, 2N140, 2N217, 2S449, 2S450, 2S452, 2S453, 2S4182, 2S4201, 2S4202, 2S843, 2S854, 2S856, 2S866, 2S873, 2S875, 2S877, 2S894, 2S8171, 2S8172, 2S8173, 2S8335, 2S8336, 2S8365, AC160-YEL, NKT213, NKT214, NKT216, SF. T307, SF. T322, *HEP3, *ECG102A, *TR-05
AC160-VIO	2N2613, *HEP3
AC160-YEL	2N217, 2N2706, 2S449, 2S856, 2S873, 2S877, 2S894, 2S8175, 2S8176, 2S8186, 2S8187, 2S8188, 2S8297, 2S8303, 2S8345, 2S8347, 2S8364, 2S8371, 2S8400, AC160-GRN, AC160-YEL, ACY32, NKT213, NKT216, SF. T307, SF. T308, SF. T323, *HEP3, *TR-05, *ECG102A
AC162	AC163, *HEP254, *SK3004, *DS-26, *GE-2, *ECG102A
AC163	*ECG102A, *HEP254
AC170	2S8370A, AC122-VIO, AC122/30-VIO, NKT218, *ECG102A, *TR-05, *HEP254
AC171	AC122-WHT, AC122/30-WHT, *HEP254, *ECG102A
AC175	*SK3020, *GE-20, *HEP641, *ECG103A
AC176	*ECG103A, *SK3010, *HEP641
AC176K	AC176, *HEP238
AC178	*ECG158
AC179	AC175, *ECG103A, *HEP641
AC186	*HEP641, *ECG103A
AC187K	
AC188K	
ACY16	
ACY23	ACY32, *SK3004, *DS-26, *HEP254, *ECG102A, *GE-2, *TR-05
ACY24	
ACY32	ACY23, *SK3004, *DS-26, *HEP254, *ECG102A, *GE-2, *TR-05
ACY33	*ECG102A, *HEP254
-AC210	
AD130	2N301, 2N351A, 2N400, 2N663, 2S8127, AD150, ADY27, CDT1310, *HEP230, *TR-01, *GE-3
AD131	2N2974, 2N553, 2N665, 2N1011, 2N1971, 2S8129, 2S8424, AC132, AUY19, AUY20, CDT1311, CDT1312, *GE-16, *TR-01, *HEP232, *ECG121
AD132	2N553, 2N665, 2N1011, 2N1971, 2S8129, 2S8424, AD163, AUY20, AUY34, CDT1312, CDT1313, *ECG121, *HEP232, *TR-01, *GE-16
AD133	AUY29, *HEP232
AD136	
AD138	2N351A, *HEP230, *GE-3, *ECG121, *DS503, *PT40
AD139	2S8448, *ECG104
AD148	*GE-3, *ECG131, *HEP230, *SK3009, *DS-503, *PT40
AD149	2N663, CDT1311, *PT40, *DS-503, *SK3009, *HEP230, *ECG104, *GE-3, *TR-01
AD150	2N663, 2S8127, 2S8407, ADY27, CDT1310, CDT1319, *TR-01, *GE-3, *ECG121, *HEP230, *SK3009, *DS-503, *PT40
AD152	*DS-520, *SK3009, *ECG131, *GE-16
AD155	*ECG131
AD159	AD136, *ECG121, *GE-16, *SK3009, *DS-520
AD160	
AD161	*ECG155
AD162	*ECG131, *GE-30, *HEP643
AD163	AUY34, *GE-25
ADY26	*GE-4, *ECG105, *DS501, *PT501
ADY27	2N663, 2S8127, 2S8407, AD150, CDT1310, CDT1319, *DS-26, *SK3004, *ECG121, *GE-16, *TR-01, *HEP230

Q1 or Q2	To Replace	Substitute This Type
ADZ11		2N1518, 2N1520, *HEP231, *GE-4, *ECG105, *SK3012, *PT501, *AA5
ADZ12		2N1474, 2N1100, 2N1358A, 2N1412, 2N2492, 2N2493, 2S8334, ADY20, *AA5, *PT501, *SK3012, *ECG105, *GE-4, *HEP233
-AF101		2S8171, 2S8172, 2S8173, *SK3005, *HFZ0M, *DS-56, *HEP253, *GE-9, *TR-17, *ECG160, *AA1
AF102		SEE 2N2494
-AF105		2N838, 2N1637, 2N2188, 2N2273, 2N2795, 2N2956, 2N3323, 2N3324, 2N3325, 2S3555, 2S8175, 2S8176, 2S8178A, *SK3008, *JR100, *DS56, *HEP637, *GE-9, *TR-17, *ECG126, *AA1
AF106		2N3783, 2N3784, AF116, AF135, AFY37, AFY42, MM5000, MM5001, MM5002, *SK3006, *DS-41, *JR200, *GE-9, *TR-17, *ECG160, *AA3, *HEP3
AF109R		2N3127, 2N3281, 2N3282, 2N3783, 2N3784, 2S4435, AF106, AF239, AF239S, AFY12, AFY37, AFY42, MM5000, MM5001, MM5002, *TR-17, *ECG160
AF114		SEE 2N2089
AF115		SEE 2N2089
AF116		SEE 2N2092
AF117		SEE 2N2092
AF118		*GE-9, *ECG160, *SK3006, *DS-41, *HEP637
AF124		2N987, AF125, AF126, AF127, *HEP636, *JR100, *SK3006, *DS-41, *ECG160, *GE-9, *AA3
AF125		2N987, AF124, AF126, AF127, *AA3, *GE-9, *ECG160, *DS-41, *SK3006, *JR100, *HEP636
AF126		2N987, AF124, AF125, AF127, *HEP636, *JR100, *SK3006, *DS-41, *ECG160, *GE-9
AF127		2N987, AF124, AF125, AF126, *GE-9, *ECG160, *DS-25, *SK3005, *JR100, *HEP636, *AA3
-AF128		*AA1, *HEP253, *HF12M, *SK3005, *DS-25, *ECG160, *GE-1
AF134		AF135, *HEP636, *JR100, *SK3008, *DS-25, *GE-9, *ECG126, *AA3
AF135		AF134, *AA3, *ECG126, *GE-9, *DS-25, *SK3008, *HF50H, *HEP636
AF136		2N3783, 2N3784, AF134, AF135, *HEP636, *HF50H, *SK3008, *DS25, *GE-9, *ECG126, *AA3
AF137		2N3783, 2N3784, AF135, AF136, AF138, *AA3, *ECG126, *GE-9, *DS25, *SK3008, *HF50H, *HEP636
AF138		2N3783, 2N3784, AF134, AF135, AF136, *HEP636, *HF50H, *SK3006, *DS41, *GE-9, *ECG126, *AA3
AF139		2N3783, 2N3784, AF239, AF239S, AFY37, AFY42, MM5000, MM5001, MM5002, *ECG160, *HEP3
AF180		SEE 2N3074
AF181		SEE 2N3075
AF200		*HEP254, *ECG160
AF201		AF200, AF202, AF202S, *ECG160, *HEP254
AF202		AF202S, *HEP254, *ECG160
AF202S		*ECG160, *HEP254
AF239		AF239S, AFY37, AFY42, MM5000, MM5001, MM5002, *HEP637, *ECG160
AF239S		2N3783, 2N3784, AFY42, MM5000, MM5001, MM5002
AF240		AF239, AFY37
AF279		
AF280		
AFY11		*HEP2, *ECG126
AFY12		2N3127, 2N3281, 2N3282, 2N3783, 2N3784, *ECG160, *HEP3, *TR-17
AFY14		2S8178B, *HEP636, *ECG160
AFY15		2S8176, *ECG160, *HEP636
AFY16		2N3783, 2N3784, *HEP3, *ECG160
AFY18		*ECG126, *HEP2
AFY19		
AFY37		*ECG160, *HEP3
AFY39		*HEP3, *ECG160
AFY42		2N3783, 2N3784, *AFY37, MM5000, MM5001, MM5002
-AFZ10		
AFZ12		2N3783, 2N3784, *TR-17, *HEP3, *ECG160
ALZ10		*ECG100
AMF101		AMF122, AMF122A, AMF123, AMF123A
AMF102		AMF122, AMF113, AMF121, AMF121A
AMF103		TI-1126, TI-1145, TI-1146
AMF104		AMF103, 2N5067, AMF118, AMF118A, AMF119, AMF119A, M5A, *ECG130, *GE-14, *SK3027
AMF105		2N1487, 2N1489, 2N1702, 2N3232, 2N3445, 2N4914, 2N4915, 2N5068, 2N5069, AMF115, AMF116, AMF117, AMF117A, BDY23A, HST9201, HST9205, HST9206, HST9208, *GE-14, *ECG130
AMF106		2N1489, 2N1490, 2N3233, 2N3446, BDY24A, HST9202, HST9203, HST9207, HST9208, HST9804, M5B
AMF107		2N1209, ST401
AMF108		2N1208, 2N1616A, AMF110, AMF111, AMF114, ST400
AMF109		2N3488, 2N3492, TI-1136, TI-1155
AMF110		2N1208, 2N1616A, AMF108, AMF111, AMF114, ST400
AMF111		2N1616A, AMF114, ST400
AMF112		AMF113
AMF113		AMF112
AMF114		2N1616A, AMF111, ST400
AMF115		2N3232, 2N3235, 2N3445, 156-083, 156-084, AMF116, B170004-BLK, B170004-BRN, B170005-BLK, B170005-BRN, B170013, B170014, B170022, B170023, DTS103, HST9201, HST9205, HST9206, HST9801, HST9802, *ECG130, *GE-14, *SK3027
AMF116		2N3232, 2N3235, 2N3445, 156-083, 156-084, AMF115, B170004-BLK, B170004-BRN, B170005-BLK, B170005-BRN, B170013, B170014, B170022, B170023, DTS103, HST9201, HST9205, HST9206, HST9801, HST9802, *SK3027, *GE-14, *ECG130
AMF117		2N1487, 2N1489, 2N1702, 2N3232, 2N3445, 2N4914, 2N4915, 2N5068, 2N5069, AMF105, AMF115, AMF116, AMF117A, BDY23A, HST9201, HST9205, HST9206, HST9801, HST9802, M5A, *ECG130, *GE-14, *SK3027
AMF117A		2N1487, 2N1489, 2N1702, 2N3232, 2N3445, 2N4914, 2N4915, 2N5068, 2N5069, AMF105, AMF115, AMF116, AMF117, BDY23A, HST9201, HST9205, HST9206, HST9801, HST9802, M5A, *SK3027, *GE-14, *ECG130
AMF118		2N1487, 2N1489, 2N1702, 2N3232, 2N3445, 2N4914, 2N5068, AMF105, AMF115, AMF116, AMF117, AMF117A, AMF118A, BDY23A, HST9201, HST9205, HST9801, M5A, *ECG130, *GE-14, *SK3027
AMF118A		2N1487, 2N1489, 2N1702, 2N3232, 2N3445, 2N4914, 2N5068, AMF105, AMF115, AMF116, AMF117, AMF117A, AMF118, BDY23A, HST9201, HST9205, HST9801, M5A, *SK3027, *GE-14, *ECG130
AMF119		2N4913, 2N5067, AMF117, AMF117A, AMF118, AMF118A, AMF119, HST9201, HST9205, M5A, *ECG130, *GE-14, *SK3027
AMF119A		2N4913, 2N5067, AMF117, AMF117A, AMF118, AMF118A, AMF119, HST9201, HST9205, M5A, *SK3027, *GE-14, *ECG130
AMF120		2N4913, 2N5067, AMF104, AMF119, AMF119A, AMF120A, *ECG130, *GE-14, *SK3027
AMF120A		2N4913, 2N5067, AMF104, AMF119, AMF119A, AMF120, *SK3027, *GE-14, *ECG130
AMF121		AMF102, AMF112, AMF113, AMF121A, *GE-14
AMF121A		AMF102, AMF112, AMF113, AMF121
AMF122		AMF102, AMF112, AMF113, AMF121, AMF121A, AMF122A, AMF122A, AMF123A
AMF122A		AMF102, AMF112, AMF113, AMF121, AMF121A, AMF122, AMF123A
AMF123		AMF121, AMF121A, AMF122, AMF122A, AMF123A
AMF123A		AMF102, AMF112, AMF113, AMF121, AMF121A, AMF122, AMF122A
AMF124		AMF101, AMF123, AMF124A

TRANSISTOR SUBSTITUTES

AMF124A-B3544

Q1 To Replace	Substitute This Type
AMF124A	AMF101, AMF123, AMF124
AMF201	156-043, 156-044, 1723-0405, 1723-0410, 8170002-BLK, 8170011, 8170020, HST9210
AMF201B	2N3238, 2N3239, 156-083, 156-084, 156-104, 1723-0805, 1723-0810, 1723-1005, 1723-1010, AMF201C, 8170005-BLK, 8170008-BLK, 8170014, 8170017, 8170023, 8170026, DT5103, DT5105, DT5106, HST9206, HST9207, MJ3772
AMF201C	156-104, 156-123, 156-124, 1723-1005, 1723-1010, 1723-1205, 1723-1210, AMF201D, 8170008-BLK, 8170017, 8170026, DT5105, DT5106, DT5107, HST9207, HST9208, MJ3772
AMF201D	2N3240, 156-123, 156-124, 156-144, 156-164, 1723-1205, 1723-1210, 1723-1405, 1723-1410, 1723-1605, 1723-1610, AMF201E, DT5107, HST9208, HST9209
AMF201E	2N3240, 156-144, 156-164, 1723-1405, 1723-1410, 1723-1605, 1723-1610, 1723-1805, 1723-1810, 1723-2005, HST9209
AMF210	HST9210, M10A, *ECG130
AMF210A	DT5103, HST9205, HST9206, *ECG130
AMF210B	DT5105, DT5106, DT5107, HST9207, HST9208, M10B
AMF210C	HST9209, M10C
AMF227	AMF228
AMF227A	AMF228A
AMF227B	AMF228B
AMF227C	AMF228C
AMF228	AMF227
AMF228A	AMF227A
AMF228B	AMF227B
AMF228C	AMF227C
AMF229	AMF227, AMF228
AMF229A	AMF227A, AMF228A
AMF229B	AMF227B, AMF228B
AMF229C	AMF227C, AMF228C
AS23	
AS24	2N2190, *GE-9, *ECG102A, *HEP636, *AA1, *SK3008, *JR100, *DS25
AS24B	2N2188, AS24
AS26	2N325A, 2N316A, 2N394, 2N404A, 2N428, 2N1017, 2N1018, 2N1313, 2SA414, 2SA415, SF, T226, *HF35, *SK3005, *HEP253, *ECG100, *GE-9, *TR-05
AS27	2N396A, 2N404A, 2N414, 2N415, 2N415A, 2N416, 2N505, 2N1171, 2N1305, 2N1313, 2N1348, 2N1349, 2N1350, 2N1351, 2N1681, 2N2375, *GE-9, *ECG100, *HEP253, *SK3005, *HF35
AS28	2N357A, 2N358A, 2N439, 2N439A, 2N587, 2N1000, 2SC128, *HF35, *HEP641, *ECG101, *GE-9, *TR-08
AS29	2N357A, 2N358A, 2N439, 2N439A, 2N440, 2N440A, 2N634A, 2N635A, 2N1000, 2N109C, 2N1091, 2N1304, 2SC90, 2SC91, 2SC129, SF, T298, *TR-08, *GE-9, *ECG101, *HEP641, *HF35
AS30	2N2188, *ECG126
AS48	*ECG102A, *HEP253
AS70	*ECG102A, *HEP254
AS215	2N501, 2N2145, 2N2145A, 2N2146, 2N2146A, *ECG121, *GE-16, *HEP232, *DS-503, *SK3009
AS216	AS218, KR6501, *HEP232, *GE-16, *ECG121
AS217	AS218, KR6500, *ECG121, *GE-16, *HEP232, *SK3009, *DS-503
AS218	*DS-503, *SK3009, *HEP232, *GE-16, *ECG121
AS221	2N898B, *ECG160, *HEP3, *TR-17
AT10H	REFER TO SECTION 2
AT10M	REFER TO SECTION 2
AT10N	REFER TO SECTION 2
AT20H	REFER TO SECTION 2
AT20M	REFER TO SECTION 2
AT20N	REFER TO SECTION 2
AT30H	REFER TO SECTION 2
AT30M	REFER TO SECTION 2
AT30N	REFER TO SECTION 2
AT100H	REFER TO SECTION 2
AT100M	REFER TO SECTION 2
AT100N	REFER TO SECTION 2
AUY10	*HEP232, *TR-01, *GE-16, *SK3009, *PT40, *DS503, *AA4, *ECG104
AUY18	
AUY19	2N297A, 2N553, 2N665, 2N1011, 2N1971, 2S8129, 2S8424, AD131, AD132, AUY20, CDT1311, CDT1312, *ECG121, *GE-16, *TR-01, *HEP232
AUY20	2N553, 2N665, 2N1011, 2N1971, 2S8129, 2S8424, AD132, AD163, AUY34, CDT1312, CDT1313, *HEP232, *TR-01, *GE-25, *ECG121
AUY21	*ECG104, *GE-16, *HEP232, *AA4, *DS-503, *PT40, *SK3009
AUY22	*GE-16, *SK3009, *PT40, *DS-503, *AA4, *HEP232, *ECG104
AUY28	KR6502, *ECG127, *GE-25
AUY29	AD133
AUY34	AD163, *GE-25
B1013	SEE 2N2282
B1013A	SEE 2N2283
B1274	SEE 2N2291
B1274A	SEE 2N2292
B1274B	SEE 2N2293
-B3456	
-B3458	
-B3459	
-B3459A	
B3460	SEE 2N4225
B3461	SEE 2N4226
B3465	*SK3048
B3466	
-B3531	HST5007, HST5008, HST5507, HST5508
-B3532	HST5008, HST5508
-B3533	HST4453, HST4454, HST5002, HST5003, HST5502, HST5503
-B3534	HST4454, HST5003, HST5503
-B3535	
-B3536	
-B3537	HST5006, HST5007, HST5506, HST5507, HST9005
-B3538	
-B3539	
-B3540	
-B3541	
-B3542	
-B3543	
-B3544	

Q 1 To Replace	Substitute This Type
-83545	
-83546	
-83547	
-83548	2N2877, HST6308, HST6309, HST6408, SDT6308, SDT6309, STT2805, STT6309, STT6409 2N2877, 2N2879, HST6309, HST6310, HST6409, HST6410, SDT6309, SDT6310, STT2804, STT2805, STT6309, STT6310, STT6409, STT6410
-83549	2N2879, HST6310, HST6409, HST6410, SDT6310, ST91057, STT2803, STT2804, STT6310, STT6410
-83550	2N2878, HST6311, HST6312, HST6411, HST6412, SDT6311, SDT6312, STT2200, STT3400, STT6312, STT6412
-83551	2N2878, 2N2880, 2N3998, HST6312, HST6313, HST6412, HST6413, SDT6312, SDT6313, STT2200, STT3400, STT6312, STT6313, STT6412, STT6413
-83552	2N2880, 2N3998, 2N4115, HST6313, HST6413, SDT6313, STT6313, STT6413
-83553	HST6314, HST6315, HST6414, HST6415, SDT6314, SDT6315, STT6315, STT6415
-83554	2N3999, HST6315, HST6316, HST6415, HST6416, SDT6315, SDT6316, STT6315, STT6316, STT6415, STT6416
-83555	2N3999, 2N4116, HST6316, HST6416, SDT6316, STT6316, STT6416
-83556	2N2880, 2N3998, 2N4115, HST6313, HST6413, SDT6313, STT6313, STT6413
-83557	2N4115, STT2802
-83558	STT2802
-83559	2N2877, HST6308, HST6309, HST6408, SDT6308, SDT6309, STT2805, STT6309, STT6409
-83560	2N2877, 2N2879, HST6309, HST6310, HST6409, HST6410, SDT6309, SDT6310, STT2804, STT2805, STT6309, STT6310, STT6409, STT6410
-83561	2N2879, HST6310, HST6409, HST6410, SDT6310, STT2803, STT2804, STT6310, STT6410
-83562	2N2878, HST6311, HST6312, HST6411, HST6412, SDT6311, SDT6312
-83563	2N2878, 2N2880, 2N3998, HST6312, HST6313, HST6412, HST6413, SDT6312, SDT6313
-83564	2N2880, 2N3998, 2N4115, HST6313, HST6413, SDT6313
-83565	HST6314, HST6315, HST6414, HST6415, SDT6314, SDT6315
-83566	HST6315, HST6316, HST6415, HST6416, SDT6315, SDT6316
-83567	2N4116, HST6316, HST6416, SDT6316
-83568	
-83569	
-83570	
-83571	
-83572	
-83573	
-83574	
-83575	
-83576	
-83577	
-83578	STT2804, STT2805
-83579	STT2803, STT2804
-83580	
-83581	2N4115
-83582	
-83583	2N4116
-83584	STT2805
-83585	2N2877, HST6011, HST6308, HST6309, HST6408, KSP1151, SDT6011, SDT6308, SDT6309, STT2805, STT6309, STT6409
-83586	2N2877, 2N2879, 2N4301, HST6011, HST6012, HST6309, HST6310, HST6409, HST6410, KSP1152, SDT6011, SDT6012, SDT6309, SDT6310, STT2804, STT2805, STT6309, STT6310, STT6409, STT6410
-83587	2N2879, 2N4301, HST6012, HST6310, HST6409, HST6410, KSP1152, SDT6012, SDT6310, STT2803, STT2804, STT6310, STT6410
-83588	2N2812, 2N2878, HST6013, HST6311, HST6312, HST6411, HST6412, KSP1154, SDT6013, SDT6311, SDT6312, STT6312, STT6412
-83589	2N2632, 2N2812, 2N2878, 2N2880, 2N3998, 2N4301, HST6013, HST6014, HST6312, HST6313, HST6412, HST6413, KSP1155, SDT6013, SDT6014, SDT6312, SDT6313, STT6312, STT6313, STT6412, STT6413
-83590	2N2633, 2N2814, 2N2880, 2N3998, 2N4115, 2N4301, HST6014, HST6313, HST6413, HST7140, KSP1155, SDT6014, SDT6313, STT6313, STT6413
-83591	HST6015, HST6314, HST6315, HST6414, HST6415, SDT6015, SDT6314, SDT6315, STT6315, STT6415
-83592	2N3999, HST6015, HST6016, HST6315, HST6316, HST6415, HST6416, SDT6015, SDT6016, SDT6315, SDT6316, STT6315, STT6316, STT6415, STT6416
-83593	2N3999, 2N4116, HST6016, HST6316, HST6416, SDT6016, SDT6316, STT6316, STT6416
-83594	2N2297, 2N2594
-83595	2N2297, 2N2594, 2N5327
-83596	2N5327
-83597	
-83598	
-83599	
-83600	2N2297, 2N2594, SDT7401, SDT7402, SDT7414, SDT7415
-83601	2N2297, 2N2594, 2N4115, 2N5327, SDT7402, SDT7403, SDT7415, SDT7416
-83602	2N4150, 2N5327, SDT7403, SDT7416
-83603	
-83604	
-83605	
-83606	HST5006, HST5506, HST9004, HST9005, STT9004, STT9005
-83607	HST5007, HST5008, HST5507, HST5508, HST9005, HST9006, STT9005, STT9006
-83608	HST5008, HST5508, HST9006, STT9006
-83609	8143000, 8143003, HST5001, HST5501, HST9004, HST9005, HST9007, HST9008, SDT3422, SDT7401, SDT7414, STT9004, STT9005, STT9007, STT9008
-83610	2N2297, 2N2594, 2N4150, 2N5327, 8143003, 8143006, HST4453, HST4454, HST5002, HST5003, HST5502, HST5503, HST9005, HST9006, HST9008, HST9009, SDT3423, SDT3424, SDT7402, SDT7403, SDT7415, SDT7416, STT1800, STT3000, STT4453, STT9005, STT9006, STT9008, STT9009
-83611	2N4150, 2N5327, 8143006, HST4454, HST5003, HST5503, HST9006, HST9009, SDT3424, SDT7403, SDT7416, STT9006, STT9009
-83612	8143001, 8143004, HST9008, HST9009, HST9007, STT9007, STT9008
-83613	2N5327, 8143004, 8143007, HST5002, HST5003, HST5502, HST5503, HST9008, HST9009, STT9008, STT9009
-83614	2N5327, 8143007, HST5003, HST5503, HST9009, STT9009
-83615	HST5011, HST5511
-83616	HST5012, HST5013, HST5512, HST5513
-83617	HST5013, HST5513
-83618	2N2811, 2N5313, 2N5317, 1716-0602, 1716-0605, 1716-0802, 1716-0805, HST6011, HST6031, HST7011, HST7012, HST9901, HST9902, KSP1151, SDT3202, SDT3203, SDT3206, SDT3207, SDT7011, SDT7012
-83619	2N2811, 2N4301, 2N5313, 2N5315, 2N5317, 2N5319, 1716-0802, 1716-0805, 1716-1002, 1716-1005, HST6011, HST6012, HST7012, HST7013, HST9902, HST9903, KSP1152, SDT3203,

TRANSISTOR SUBSTITUTES

B3620-B143019

To Replace	Substitute This Type
-B3619 (CONT)	SDT3204, SDT3207, SDT3208, SDT7012, SDT7013
-B3620	2N2813, 2N4301, 2N5315, 2N5319, 1716-1002, 1716-1005, 1716-1202, 1716-1205, HST6012, HST7013, HST9903, HST9904, KSP1152, SDT3201, SDT3204, SDT3208, SDT3209, SDT7013
-B3621	2N2812, B155004, B155005, HST6013, HST7014, HST7015, KSP1154, KSP1154, SDT7014, SDT7015
-B3622	2N2812, 2N4301, 2N5730, 2N5731, B155000, B155002, B155003, B155004, B155005, HST6013, HST6014, HST7015, HST7016, KSP1155, SDT7015, SDT7016
-B3623	2N2814, 2N4115, 2N4301, 2N5730, 2N5731, B155000, B155001, B155002, B155003, HST6014, HST7016, HST7017, KSP1155, SDT7016
-B3624	HST6015, HST7017, HST7018, SDT7017, SDT7018
-B3625	HST6015, HST6016, HST7018, HST7019, SDT7018, SDT7019
-B3626	2N4116, HST6016, HST7019, SDT7019
-B3629	
-B3630	
-B3631	2N2877, 2N2879, HST6309, HST6310, HST6409, HST6410, SDT6309, SDT6310, STT2804, STT2805, STT6309, STT6310, STT6409, STT6410
-B3632	2N2878, 2N2880, HST6312, HST6313, HST6412, HST6413, SDT6312, SDT6313
-B3633	2N2879, HST6310, HST6409, HST6410, SDT6310, STT2803, STT2804, STT6310, STT6410
-B3634	2N2880, 2N4115, HST6313, HST6413, SDT6313
-B3746	2N5130, 8FY69A, 8FY69B, D26C1, D26G-1, EN706, EN3011, SE3001, SE3002, *TR-22
-B3747	*TR-22
-B3748	*TR-22
-B3749	
-B3750	
B5000	B5030, B5040, *HEP245
B5001	B5031, B5041
B5002	B5032, B5042
B5020	*GE-14
B5021	
B5022	
B5030	B5000, B5040
B5031	B5001, B5041
B5032	B5002, B5042
B5040	B5050
B5041	B5051
B5042	B5052
B5050	
B5051	
B5052	
B5100	
B5120	
B5130	
B5140	
B5150	
-B10142	2N5325, MP3731, *HEP235, *ECG127
-B10142A	2N5325, MP3731, *ECG127, *HEP235
-B10142B	2N5325, *HEP235, *ECG127
-B10474	*HEP232, *ECG121, *GE-16
-B10475	*GE-25, *ECG121, *HEP232
-B10912	*ECG121, *GE-3, *TR-01
-B10913	*TR-02, *GE-3, *ECG121
B102000	2N1905, 2N2291, 2N3613, 2N3614, ASZ16, KR6501, MP2060, MP2061
B102001	2N1905, 2N3614, ASZ16, KR6501, MP2061, MP2062
B102002	2N1905, 2N2292, 2N2444, 2N3614, ASZ16, KR6501, MP2061, MP2062
B102003	2N1906, 2N2292, 2N2444, KR6503, MP2062, MP2063
B103000	*HEP232, *ECG121, *GE-16
B103001	2N678A, 2N1558, 2N1558A, 2N1559, 2N1559A, 2N1560, 2N2292, 2N2444, 2N2612, 2N2612, 2N2832, KR6503
B103002	2N678B, 2N678C, 2N1559, 2N1559A, 2N1560, 2N1560A, 2N1906, 2N1907, 2N2292, 2N2444, 2N2832, KR6503
B103003	2N678B, 2N678C, 2N1559, 2N1559A, 2N1560, 2N1560A, 2N1906, 2N1907, 2N2292, 2N2444, 2N2832, KR6503
B103004	2N678B, 2N678C, 2N1560, 2N1560A, 2N1906, 2N1907, 2N2293, 2N2833, KR6503
B113000-BRN	B113000-RED, B113001-BRN, B113001-RED, B113003-RED
B113000-ORG	B113001-ORG
B113000-RED	B113000-ORG, B113001-ORG, B113001-RED
B113001-BRN	B113001-RED, B113002-BRN, B113002-RED, B113003-RED, B113004-RED
B113001-ORG	B113002-ORG
B113001-RED	B113001-ORG, B113002-ORG, B113002-RED
B113002-BRN	B113002-RED, B113004-RED
B113002-ORG	
B113002-RED	B113002-ORG
B113003-BRN	B113003-RED, B113004-BRN, B113004-RED, B113005-BRN
B113003-RED	B113001-BRN, B113002-BRN, B113004-RED
B113004-BRN	B113004-RED, B113005-BRN
B113004-RED	B113002-BRN
B113005-BRN	B113004-BRN, B113004-RED
B113005-RED	
B143000	B143001, B143003, B143004
B143001	B143002, B143004, B143005
B143002	B143005
B143003	B143004, B143006, B143007
B143004	B143005, B143007, B143008
B143005	B143008
B143006	B143007
B143007	B143008
B143008	
B143009	
B143010	
B143011	
B143012	
B143013	
B143014	
B143015	B143016, B143018, B143019
B143016	B143015, B143017, B143018, B143019, B143020
B143017	B143020
B143018	B143019, B143021, B143022
B143019	B143018, B143020, B143021, B143022, B143023

Q1 To Replace	Substitute This Type
B143020	B143023
B143021	B143022
B143022	B143021, B143023
B143023	
B143024	
B143025	
B143026	
B143027	
B143028	
B143029	
B144000	B144001, B144003, B144004
B144001	B144000, B144002, B144003, B144004, B144005
B144002	B144005
B144003	B144004, B144006, B144007
B144004	B144003, B144005, B144006, B144007, B144008
B144005	B144008
B144006	B144007
B144007	B144006, B144008
B144008	
B145000	B144000, B144001, B144003, B144004, B145001, B145003, B145004, B146000, B146001, B146003, B146004
B145001	B144000, B144001, B144002, B144003, B144004, B144005, B145000, B145002, B145003, B145004, B145005, B146000, B146001, B146002, B146003, B146004, B146005
B145002	B144002, B144005, B145005, B146002, B146005
B145003	B144003, B144004, B144006, B144007, B145004, B145006, B145007, B146003, B146004, B146006, B146007
B145004	B144003, B144004, B144005, B144006, B144007, B144008, B145003, B145005, B145006, B145007, B146003, B146004, B146005, B146006, B146007, B146008
B145005	B144005, B144008, B146005, B146008
B145006	B144006, B144007, B145007, B146006, B146007
B145007	B144006, B144007, B144008, B145006, B146006, B146007, B146008
B145008	2N4116, 2N5084, B144008, B146008, HST6016, HST6316, HST6416, HST7019, SDT7019
B145009	
B145010	
B145011	
B145012	
B145013	
B145014	
B146000	B144000, B144001, B144003, B144004, B145000, B145001, B145003, B145004, B146001, B146003, B146004
B146001	B144000, B144001, B144002, B144003, B144004, B144005, B145000, B145001, B145002, B145003, B145004, B145005, B146000, B146002, B146003, B146004, B146005
B146002	B144002, B144005, B145002, B145005, B146005
B146003	B144003, B144004, B144006, B144007, B145003, B145004, B145006, B145007, B146004, B146006, B146007
B146004	B144003, B144004, B144005, B144006, B144007, B144008, B145003, B145004, B145005, B145006, B145007, B146003, B146004, B146005, B146006, B146007, B146008
B146005	B144005, B144008, B146005, B146008
B146006	B144006, B144007, B145007, B146006, B146007
B146007	B144006, B144007, B144008, B145006, B146006, B146007, B146008
B146008	B144008
B146009	
B146010	
B146011	
B146012	
B146013	
B146014	
B148000	B148001
B148001	
B148002	B148000, B148001, B148003
B148003	B148001
B148004	B148000
B148005	SEE 2N5412
B149000	
B149001	
B149002	
B149003	
B149004	
B149005	
B155000	B155001
B155001	2N5229, 2N5330
B155002	B155000, B155001, B155003
B155003	B155000, B155001, B155002
B155004	B155000
B155005	2N5412, B155000, B155002, B155003, B155004
B170000-BLK	2N1487, 2N1489, 2N3232, 2N3445, 2SD1244, B170000-BRN, B170001-BLK, B170001-BRN, B170019, BDY23A, HST9201, HST9205, HST9801, KSP1171, SDT7607, *ECG130
B170000-BRN	2N1489, 2N3232, 2N3445, 2SD1244, 180T2, B170000-RED, B170001-BRN, B170001-RED, B170018, B170019, BDY23B, HST9201, HST9205, HST9801, KSP1171, SDT7607, *ECG130
B170000-ORG	2N3447, 180T2, B170000-RED, B170000-YEL, B170001-CRG, B170001-YEL, B170018, BDY23B, BDY23C, KSP1174, SDT7601
B170000-RED	2N3447, 180T2, B170000-ORG, B170000-YEL, B170001-CRG, B170001-RED, B170001-YEL, B170018, BDY23B, KSP1174, SDT7601
B170000-YEL	B170001-YEL, BDY23C
B170001-BLK	2N3235, 1723-0405, 1723-0410, 1723-0605, 1723-0610, B170001-BRN, B170002-BLK, B170002-BRN, B170019, B170020, HST9201, HST9205, HST9801, *ECG130
B170001-BRN	2N3235, B170001-RED, B170002-BRN, B170002-RED, B170019, HST9201, HST9205, HST9801, *ECG130
B170001-ORG	B170001-RED, B170001-YEL, B170002-ORG, B170002-RED, B170002-YEL
B170001-RED	B170001-CRG, B170001-YEL, B170002-ORG, B170002-RED, B170002-YEL
B170001-YEL	B170002-YEL
B170002-BLK	2N3235, 2N5302, B170002-BRN, B170020, HST9201, HST9205, NJ3771
B170002-BRN	2N3235, B170002-RED, HST9201, HST9205
B170002-ORG	B170002-RED, B170002-YEL
B170002-RED	B170002-ORG, B170002-YEL
B170002-YEL	

TRANSISTOR SUBSTITUTES

B170003-BLK-B170024

To Replace	Substitute This Type
B170003-BLK	2N1488,2N1490,2N3233,2N3446,2SD124A, B170003-BRN, B170004-BLK, B170004-BRN, B170006-BLK, B170006-BRN, B170007-BLK, B170007-BRN, B170022, B170025, B0Y244, HST9202, HST9206, HST9207, HST9802, HST9803, KSP1172, SDT7608, SDT7609
B170003-BRN	2N1490, 2N3233, 2N3446, 2SD124A, 1B1T2, B170003-RED, B170004-BRN, B170004-RED, B170006-BRN, B170006-RED, B170007-BRN, B170007-RED, B170021, B170022, B170024, B170025, B0Y248, HST9202, HST9206, HST9206, HST9207, HST9802, HST9803, KSP1172, SDT7608, SDT7609
B170003-DRG	2N3448, 1B1T2, B170003-RED, B170003-YEL, B170004-DRG, B170004-RED, B170004-YEL, B170006-DRG, B170006-RED, B170006-YEL, B170007-DRG, B170007-RED, B170007-YEL, B170021, B170024, B0Y248, B0Y24C, KSP1175, SDT7602, SDT7603
B170003-RED	2N3448, 1B1T2, B170003-DRG, B170003-YEL, B170004-DRG, B170004-RED, B170004-YEL, B170006-DRG, B170006-RED, B170006-YEL, B170007-DRG, B170007-RED, B170007-YEL, B170021, B170024, B0Y248, KSP1175, SDT7602, SDT7603
B170003-YEL	B170004-YEL, B170006-YEL, B170007-YEL, B0Y24C
B170004-BLK	2N3236, 2N5632, 156-083, 156-084, 156-104, 1723-0805, 1723-0810, 1723-1005, 1723-1010, B170004-BRN, B170005-BLK, B170005-BRN, B170007-BLK, B170007-BRN, B170008-BLK, B170008-BRN, B170022, B170023, B170025, B170026, DT5103, DT5105, DT5106, HST9202, HST9206, HST9207, HST9802, HST9803, M3372
B170004-BRN	2N3236, 2N5632, B170004-RED, B170005-BRN, B170005-RED, B170007-BRN, B170007-RED, B170008-BRN, B170008-RED, B170022, B170025, DT5103, DT5105, DT5106, HST9202, HST9206, HST9207, HST9802, HST9803
B170004-DRG	2N3716, B170004-RED, B170004-YEL, B170005-DRG, B170005-RED, B170005-YEL, B170007-DRG, B170007-RED, B170007-YEL, B170008-DRG, B170008-RED, B170008-YEL, DT5104
B170004-RED	2N3716, B170004-DRG, B170004-YEL, B170005-DRG, B170005-RED, B170005-YEL, B170007-DRG, B170007-RED, B170007-YEL, B170008-DRG, B170008-RED, B170008-YEL, DT5104
B170004-YEL	2N3716, B170005-YEL, B170007-YEL, B170008-YEL, DT5104
B170005-BLK	2N3236, 2N3237, 2N5303, 2N5629, 156-083, 156-084, 156-104, B170005-BRN, B170008-BLK, B170008-BRN, B170023, B170026, DT5103, DT5105, DT5106, HST9206, HST9207, M3372
B170005-BRN	2N3236, 2N5629, B170005-RED, B170008-BRN, B170008-RED, DT5103, DT5105, DT5106, HST9202, HST9206, HST9207
B170005-DRG	B170005-RED, B170005-YEL, B170008-DRG, B170008-RED, B170008-YEL, DT5104
B170005-RED	B170005-DRG, B170005-YEL, B170008-DRG, B170008-RED, B170008-YEL, DT5104
B170005-YEL	B170008-YEL, DT5104
B170006-BLK	2N1488, 2N1490, 2N3233, 2N3446, B170006-BRN, B170007-BLK, B170007-BRN, B170025, B0Y244, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, KSP1172, SDT7609
B170006-BRN	2N1490, 2N3233, 2N3446, 1B1T2, B170006-RED, B170007-BRN, B170007-RED, B170024, B170025, B0Y248, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, KSP1172, SDT7609
B170006-DRG	2N3448, 2N4070, 1B1T2, B170006-RED, B170006-YEL, B170007-DRG, B170007-RED, B170007-YEL, B170024, B0Y248, B0Y24C, KSP1175, SDT7603
B170006-RED	2N3448, 2N4070, 1B1T2, B170006-DRG, B170006-YEL, B170007-DRG, B170007-RED, B170007-YEL, B170024, B0Y248, KSP1175, SDT7603
B170006-YEL	B170007-YEL, B0Y24C
B170007-BLK	2N3236, 2N5632, 2N5633, 156-104, 156-123, 156-124, 1723-1005, 1723-1010, 1723-1205, 1723-1210, B170007-BRN, B170008-BLK, B170008-BRN, B170025, B170026, DT5105, DT5106, DT5107, HST9202, HST9203, HST9207, HST9208, HST9804, M3372
B170007-BRN	2N3236, 2N5039, 2N5632, 2N5633, B170007-RED, B170008-BRN, B170008-RED, B170025, DT5105, DT5106, DT5107, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804
B170007-DRG	2N3716, 2N5039, B170007-RED, B170007-YEL, B170008-DRG, B170008-RED, B170008-YEL
B170007-RED	2N3716, 2N5039, B170007-DRG, B170007-YEL, B170008-DRG, B170008-RED, B170008-YEL
B170007-YEL	2N3716, B170008-YEL
B170008-BLK	2N3236, 2N5629, 2N5630, 108T2, 156-104, 156-123, 156-124, B170008-BRN, B170026, DT5105, DT5106, DT5107, HST9202, HST9203, HST9207, HST9208, M3372
B170008-BRN	2N3236, 2N5039, 2N5629, 2N5630, 108T2, B170008-RED, DT5105, DT5106, DT5107, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804
B170008-DRG	2N5039, B170008-RED, B170008-YEL
B170008-RED	2N5039, B170008-DRG, B170008-YEL
B170008-YEL	
B170009	2N3447, 180T2, B170000-DRG, B170000-RED, B170000-YEL, B170001-DRG, B170001-RED, B170001-YEL, B170018, B0Y238, KSP1174, SDT7601, *ECG130, *GE-14, *SK3027, *HPE247
B170010	2N3235, B170001-BRN, B170001-RED, B170002-BRN, B170002-RED, B170019, HST9201, HST9205, HST9801, *HPE247, *SK3027, *GE-14, *ECG130
B170011	2N5302, 1582-0510, 1582-0608, 1582-0615, B170002-BLK, B170002-BRN, B170020, HST9201, HST9205, M3371, *ECG130, *GE-14, *HPE247
B170012	2N3448, 1B1T2, B170003-DRG, B170003-RED, B170003-YEL, B170004-DRG, B170004-RED, B170004-YEL, B170006-DRG, B170006-RED, B170006-YEL, B170007-DRG, B170007-RED, B170007-YEL, B170015, B170021, B170024, B0Y248, KSP1175, SDT7602, SDT7603, *GE-19, *ECG130, *SK3027, *HNI100
B170013	2N3236, 2N5632, B170004-BRN, B170004-RED, B170005-BRN, B170005-RED, B170007-BRN, B170007-RED, B170008-BRN, B170008-RED, B170016, B170022, B170023, DT5103, DT5105, DT5106, HST9202, HST9206, HST9207, HST9803, *SK3027, *ECG130, *GE-14
B170014	2N3236, 2N3237, 2N5303, 156-083, 156-084, 156-104, B170005-BRN, B170008-BLK, B170008-BRN, B170017, B170023, B170026, DT5103, DT5105, DT5106, HST9202, HST9206, HST9207, M3372, *ECG130
B170015	2N3448, 2N4070, 1B1T2, B170006-DRG, B170006-YEL, B170006-RED, B170007-DRG, B170007-RED, B170007-YEL, B170024, B0Y248, KSP1175, SDT7603, *ECG130, *GE-14, *SK3027
B170016	2N3236, 2N5039, 2N5632, 2N5633, B170007-BRN, B170007-RED, B170008-BRN, B170008-RED, B170025, DT5105, DT5106, DT5107, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, *SK3027, *GE-14, *HPE247
B170017	2N3236, 2N5630, 108T2, 156-104, 156-123, 156-124, 1582-1008, 1582-1010, 1582-1015, 1582-1208, 1582-1210, 1582-1215, B170008-BLK, B170008-BRN, B170026, DT5105, DT5106, DT5107, HST9202, HST9203, HST9207, HST9208, M3372
B170018	2N3447, 180T2, B170000-DRG, B170000-RED, B170000-YEL, B170001-DRG, B170001-RED, B17001-RED, B170001-YEL, B0Y238, KSP1174, SDT7601, *ECG130, *GE-19, *SK3027, *HNI100, *HPE247
B170019	2N3235, B170001-BRN, B170001-RED, B170002-BRN, B170002-RED, HST9201, HST9205, HST9801, *HPE247, *SK3027, *GE-14, *ECG130
B170020	2N3202, 1582-0510, 1582-0608, 1582-0615, B170002-BLK, B170002-BRN, HST9201, HST9205, HST9801, M3371, *ECG130, *GE-14, *HPE247
B170021	2N3448, 1B1T2, B170003-DRG, B170003-RED, B170003-YEL, B170004-DRG, B170004-RED, B170004-YEL, B170006-DRG, B170006-RED, B170006-YEL, B170007-DRG, B170007-RED, B170007-YEL, B170024, B0Y248, KSP1175, SDT7602, SDT7603, *GE-14, *ECG130, *SK3027
B170022	2N3236, 2N5632, B170004-BRN, B170004-RED, B170005-BRN, B170005-RED, B170007-BRN, B170007-RED, B170008-BRN, B170008-RED, B170016, B170022, B170023, DT5103, DT5105, DT5106, HST9202, HST9206, HST9207, HST9803, *SK3027, *ECG130, *GE-14
B170023	2N3236, 2N3237, 2N5303, 156-083, 156-084, 156-104, 1582-0808, 1582-0815, 1582-1008, 1582-1010, 1582-1015, B170005-BLK, B170005-BRN, B170008-BLK, B170008-BRN, B170026, DT5103, DT5105, DT5106, HST9202, HST9206, HST9207, M3372
B170024	2N3448, 2N4070, 1B1T2, B170006-DRG, B170006-RED, B170006-YEL, B170007-DRG, B170007-RED, B170007-YEL

Q1 Si	To Replace	Substitute This Type
B170024 (CONT)	B170007-YEL, 8DY248, KSP1175, SOT7603, *GE-14, *ECG130, *SK3027	
B170025	2N3236, 2N5039, 2N5632, 2N5633, B170007-BRN, B170008-BRN, B170008-RED, B170008-RED, DT5105, DT5106, DT5107, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, *SK3027, *ECG130, *GE-14	
B170026	2N3236, 2N5630, 108T2, 156-104, 156-123, 156-124, 1582-1008, 1582-1010, 1582-1015, 1582-1208, 1582-1210, 1582-1215, B170008-BLK, B170008-BRN, DT5105, DT5106, DT5107, HST9202, HST9203, HST9207, HST9208, MJ3772	
B176000	25C270, 183T2, 8DY268	
B176001	2N5804, 25C270, 183T2, 8DY268, HST7202, HST7203, HST7204, KSP1142, KSP1143, KSP1144, KSP1145, SOT7202, SOT7203, SOT7204	
B176002	2N58C4, 25C270, 25C681, 25C681A, 8DY26A, HST7202, HST7203, HST7204, KSP1142, KSP1143, KSP1144, KSP1145, SOT7202, SOT7203, SOT7204	
B176003	25C681, 25C681A, 8DY26A, HST7208, HST7209, SOT1050, SOT1055, SOT7208, SOT7209	
B176004	2N5240, 184T2, 185T2, 8DY278, 8DY288	
B176005	2N5240, 2N5805, 184T2, 185T2, 8DY278, 8DY288	
B176006	2N5240, 2N5805, 8DY27A, 8DY28A	
B176007	8DY27A, 8DY28A, SOT1051, SOT1052, SOT1056, SOT1057	
B176008	185T2, 8DY288	
B176009	185T2, 8DY288	
B176010	8DY28A	
B176011	8DY28A, SOT1052, SOT1053, SOT1054, SOT1057, SOT1058, SOT1059	
B176012		
B176013		
B176014		
B176015	SOT1054, SOT1059	
B176024	2N5240, 2N5805, 8DY27A, 8DY28A	
B176025	8DY27A, 8DY28A, SOT1051, SOT1052, SOT1056, SOT1057	
B176026	8DY28A	
B176027	8DY28A, SOT1052, SOT1053, SOT1054, SOT1057, SOT1058, SOT1059	
B176028		
B176029	SOT1054, SOT1059	
B176030		
B177000	108T2	
BC107	2N4953, 2N5370, 2N5376, A1578, BC1078, BC1718, BCY598, BCY59C, *HEP55, *GE-20, *SK3020, *DS-66, *SN80, *ECG123A	
BC107A	2N3116, 2N3302, 2N5376, 2N5377, BC171A, FT3643, *ECG123A, *SK3020, *HEP55	
BC107B	*HEP55, *SK3020, *ECG123A, *GE-20	
BC108	A1578, BC107, BC1078, BC1088, BC109C, BC1718, BC1728, BCY588, BCY58C, BCY598, BCY59C, BC120, *ECG123A, *SK3020, *SN80, *DS-66, *HEP50	
BC108A	2N4124, 2N4265, 2N4954, 2N5371, A1578, BC107, BC107A, BC108, BC171A, BC172A, BCY58A, BCY58B, BCY59A, BCY59B, *HEP55, *ECG123A	
BC108B	BC1078, BC109, BC109C, BCY58D, BCY59D, *ECG123A, *HEP55, *SK3020, *GE-20	
BC108C	BC109B, *HEP55, *ECG123A	
BC109	BC108C, BC109B, BC172C, BCY58D, BCY59D, *ECG123A, *GE-17, *SK3020, *EN10	
BC109B	BC108C, *SK3020, *GE-10, *ECG123A, *HEP55	
BC109C	BC1078, BC1088, BC109, BCY58C, BCY59C, *HEP55, *ECG123A, *GE-20	
BC110	2N736A, 2N736B, 2N2460, 2N2461, 2N2465, 2N2516, *ECG123A	
BC121	*ECG107, *SK3020, *SN80, *DS-66, *GE-20	
BC122	*GE-20, *DS-66, *SN80, *SK3020, *ECG107	
BC123	*ECG107, *SK3020, *SN80, *DS-66, *GE-20	
BC129	2N4953, 2N5370, 2N5376, A1578, BC107, BC1078, BC167, BC1718, BCY598, BCY59C, *ECG123A, *SN80, *GE-20, *HEP50	
BC130	A1588, A1598, BC108, BC1088, BC109C, BC168, BC1728, BCY588, BCY58C, *HEP50, *GE-20, *SN80, *ECG123A	
BC131	A158C, A159C, BC108C, BC109, BC109B, BC169, BC172C, BCY58D, *ECG123A, *SN80, *GE-20, *HEP50	
BC140	BC141, HST4455, HST4456, *ECG128, *SK3024, *GE-18	
BC140-06	2N1613, 2N1613A, 2N1889, 2N1974, 2N2193, 2N2193A, 2N2193B, 2N3107, 2N3109	
BC140-10	2N1890, 2N1973, 2N2049, *ECG128	
BC140-16	2N1711, 2N1711A, *ECG128	
BC141	HST4456, *ECG128, *GE-18, *SK3024	
BC141-06	2N6998, 2N1613B, 2N1889, 2N1893, 2N1974, 2N2102, 2N2102A, 2N2243, 2N2243A, 2N2443, 2N3036, 2N3107, 2N4001, 40366	
BC141-10	2N1890, 2N1973, *ECG128	
BC141-16	2N1711B, 2N4943, *ECG128	
BC147	*ECG123A, *GE-20, *SK3020	
BC148	BC149, *SK3020, *ECG123A, *HEP55, *GE-17	
BC149	*SK3020, *ECG123A, *HEP55, *GE-17	
BC157	A757, *ECG159	
BC158	*ECG159	
BC159	A758, BC158, *ECG159	
BC160-06	2N3244, 2N3245, 2N3762, 2N4030, 2N4032, 2N5042, HM3726	
BC160-10	2N3244, 2N4037, *ECG129	
BC160-16	*ECG129	
BC161-06	2N4030, 2N4032, 2N4404, 2N4406	
BC161-10	2N4037, 2N4407, *ECG129	
BC161-16	2N3021, 2N4033, 2N4405, 2N4407, *ECG129	
BC167	*ECG123A	
BC168	BC1078, BC1088, BC109C, BC109C, BC169, BCY58C, BCY58D, BCY59C, BCY59D, *ECG123A, *SK3020	
BC169	BC108C, BC109B, BC172C, BCY58D, BCY59C, *SK3020, *ECG123A, *HEP55	
BC170A	2N744, 2N3118, 2N2319, 2N2331, 2N2569, 2N2570, 2N2656, 2N3011, 2N4264, 25C356, 25C428, 25C595, BC173B, PT720, *ECG123A, *TR-22	
BC170B	2N3241A, 2N4124, 2N4265, 2N6000, BC108A, BC172A, BC173C, BCY58A, *ECG123A	
BC170C	2N6002, 2N6008, BC1088, BC109, BC109C, BCY58C, BCY58D, *ECG123A	
BC171A	2N3021, 2N3013, 2N5371, 2N5376, 2N5377, BC1078, BC1718, *ECG123A	
BC171B	2N4953, 2N5370, BC1078, *ECG123A	
BC172A	A1578, BC107, BC1078, BC108, BC108B, BC109C, BC171A, BC1718, BC1728, BCY58A, BCY58B, BCY58C, BCY59A, BCY59B, BCY59C, *ECG123A	
BC172B	BC1078, BC1088, BC109, BC109C, BC171B, BCY58C, BCY59C, *ECG123A	
BC172C	BC108C, BC109B, *ECG123A	
BC1738	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2318, 2N2319, 2N2481, 2N2501, 2N2710, 2N3011, 2N3013, 2N5014, 2N3210, 2N3510, 2N3511, 2N3605A, 2N5606A, 2N3647, 2N3648, 2N4123, 2N4264, 2N5144, 25C67, 25C68, 25C321, 25C427, 25C595, 25C601, 25C601A, 25C639, 25C689, 25C764, B5W82, GET708, GET914, GE72369, GET3013, GET3014, GET3646, *SK3020, *TR-22, *HEP725, *ECG123A	
BC173C	2N3227, 2N4124, 2N4265, 2N4954, 2N5371, BC107, BC107A, BC108, BC108A, BC171A, BC172A, BCY58A, BCY59A, B5W83, *ECG123A, *HEP730	

TRANSISTOR SUBSTITUTES

BC174A-BC361-10

To Replace	Substitute This Type
BC174A	BC174B,*ECG128
BC174B	*ECG128
BC177	2N3250,2N3250A,2N3486,2N3486A,2N3505,2N3645,2N3672,2N3673,2N4143,2N4228,2N5373,2N6005,2SA603,1A177,8S475,EN2905,FT3644,GET2906,GET2907,*ECG159,*GE-2,*SK3004
BC178	2N3251,2N3644,2N3906,2N4035,2N5244,2N5378,2N5379,2N6001,2N6005,BC251A,BC261A,BCY78,BCY79,8S475,EN2905,FT3644,GET2906,GET2907,*ECG159,*HEP17
BC179	2N4035,2N5244,2N5378,2N5379,2N6003,2N6009,BC178,BCY78,*ECG159
BC192	2N5811,2N6001,8S475,029E01,TQ60,TQ62,*ECG159
BC201	*ECG159
BC202	BC203,*ECG159
BC203	*ECG159
BC237A	2N9308,2N2484A,2N2524,2N4401,MM3904
BC237B	T1597
BC238A	2N3227,2N3242A,2N3509,2N4124,2N4265,2N4954,2N5371,2N5826,2N6000,2N6004,25C367,BC107,BC107A,BC108,BC108A,BC117A,BC172A,BCY58A,BCY58B,BCY59A,BCY59B,8FY39-3,8S475,MP5370A,MP5370E,T1592-GRY,T1592-VIO,TN80
BC238B	2N3417,2N6002,2N6006,2N6008,2N6008A,1A578,BC107B,BC108B,BC109,BC109C,BC171B,BC172B,BCY58C,BCY59C,GI-3417,GI-3566,PET4002
BC238C	2N5828,BC108C,BC109B,BC172C,BCY58D,BCY59D,PET4003
BC239A	2N3227,2N3242A,2N3416,2N3509,2N4074,2N4124,2N4265,2N4954,2N5371,2N5825,2N5826,2N6000,2N6004,25C367,BC107,BC107A,BC108,BC108A,BC171A,BC172A,BC173C,BCY58A,BCY59A,8FY39-2,8S475,MP5370A,MP5370E,T1592-BLU,T1592-VIO,TN80
BC239B	2N3417,2N6000,2N6006,2N6008,2N6008A,1A578,BC107B,BC108B,BC109C,BC171B,BC172B,BCY58B,BCY58C,BCY59B,BCY59C,8FY39-3,GI-3417,GI-3566,PET4002
BC250A	2N869A,2N3545,2N3576,2N3829,BC253A,BC253B,BC260A,BC263A,BC263B,*ECG159,*TR-19
BC250B	2N6001,BC252A,BC253C,BC260B,BC262A,BC263C,*ECG159
BC250C	2N6003,BC252B,BC260C,BC262B,*ECG159
BC251A	2N2907,2N2974A,2N3251,2N3251A,2N3486,2N3486A,2N4143,2N6005,BC256A,BC261A,BC266A,BCY79,GET2906,GET2907,GI-3644,*ECG159
BC251B	2N6007,BC251C,BC256B,BC261B,BC261C,BC266B,*ECG159
BC251C	BC261C,*ECG159
BC252A	2N6001,BC262A,BCY78,*ECG159
BC252B	2N6003,BC250C,BC252C,BC260C,BC262B,BC262C,*ECG159
BC252C	BC262C,*ECG159
BC253A	2N869A,2N3545,2N3576,2N3829,BC250A,BC253B,BC260A,BC263A,BC263B,*ECG159,*TR-19
BC253B	2N869A,2N3545,2N3576,2N3829,BC250A,BC253A,BC260A,BC263A,BC263B,*TR-19,*ECG159
BC253C	2N6001,BC250B,BC252A,BC260B,BC262A,BC263C,BCY78,BCY79,BCY58A,BCY59A,BCY58B,BCY59B,BCY58C,BCY59C,8FY39-3,GI-3417,GI-3566,PET4002
BC256A	2N2907,2N2907A,2N3251A,2N3486,2N3486A,2N4143,BC266A,8S475,GET2906,GET2907,*ECG159
BC256B	BC266B,*ECG159
BC257	2N2907,2N2907A,2N3251,2N3251A,2N3486,2N3486A,2N3505,2N3672,2N3673,2N4143,2N4228,2N4972,2N5373,2N6005,2SA603,1A177,BC256A,BC266A,8S475,EN2907,GET2906,GET2907,*ECG159
BC258	2N3251,2N3906,2N4035,2N4122,2N4917,2N4972,2N5244,2N5378,2N5379,2N6001,2N6005,BCY78,BCY79,BC251A,BCY78,BCY79,8S475,EN2905,FT3644,GET2906,GET2907,*ECG159
BC259	2N4035,2N4122,2N4917,2N5244,2N5378,2N5379,2N6003,2N6009,BC178,BC179,BC258,BCY78,*ECG159
BC260A	2N869A,2N3545,2N3576,2N3829,BC250A,BC253A,BC253B,BC260A,BC263A,BC263B,*ECG159,*TR-19
BC260B	2N6001,BC250B,BC252A,BC253C,BC262A,BC263C,*ECG159
BC260C	2N6003,BC250C,BC252B,BC262B,*ECG159
BC261A	2N2907,2N2907A,2N3251,2N3251A,2N3486,2N3486A,2N3644,2N3645,2N4143,2N6005,BC251A,BC256A,BC266A,BCY79,GET2906,GET2907,GI-3644,*SK3025,*ECG159,*HEP17
BC261B	2N6007,BC251C,BC251C,BC256B,BC261C,BC266B,*ECG159,*SK3025
BC261C	BC251C,*ECG159
BC262A	2N6001,BC252A,BCY78,*ECG159
BC262B	2N6003,BC250C,BC252B,BC252C,BC260C,BC262C,*ECG159
BC262C	BC252C,*ECG159
BC263A	2N869A,2N3545,2N3576,2N3829,BC250A,BC253A,BC253B,BC260A,BC263B,*ECG159,*TR-19
BC263B	2N869A,2N3545,2N3576,2N3829,BC250A,BC253A,BC253B,BC260A,BC263A,*TR-19,*ECG159
BC263C	2N6001,BC250B,BC252A,BC253C,BC260B,BC262A,BCY78,*ECG159
BC266A	2N2907,2N2907A,2N3251A,2N3486,2N3486A,2N3644,2N3645,2N4143,BC256A,8S475,GET2906,GET2907,*ECG159
BC266B	BC256B,*ECG159
BC307A	2N2907,2N2907A,2N3251,2N3251A,2N3486,2N3486A,2N3505,2N3547,2N3912,2N3915,2N3962,2N4143,2N4415A,2N5373,2N6005,2SA603,1A177,BC256A,BC266A,8S475,GET2906,GET2907,2N3547,2N3948,2N3949,2N3962,2N3965,2N4413A,2N5374,2N6007,BC256B,BC266B
BC307B	2N3549,2N3550,BC256B,BC266B
BC308A	2N3251,2N3504,2N3527,2N3702,2N3906,2N4034,2N4035,2N4415,2N4980,2N5244,2N5375,2N5378,2N5379,2N5447,2N6001,2N6005,1A177,BC178,BC251A,BC261A,BCY78,BCY79,8S475,GI-3644,GI-3702,MM3906,T1593-BLU,T1593-GRN,T1593-GRY,T1593-VIO,TQ60
BC308B	2N3964,2N4413,2N5244,2N5378,2N5379,2N6003,2N6007,2N6009,BC251B,BC261B,BCY78,BCY79,T1593-GRY
BC308C	BC251B,BC251C,BC261B,BC261C
BC309A	2N727,2N869A,2N2412,2N2861,2N2945,2N2945A,2N2946,2N2946A,2N3040,2N3527,2N3702,2N3905,2N4034,2N4035,2N4402,2N4403,2N4980,2N5375,2N5447,BC192,8S475,EN2905,FT3644,GET2906,GET2907,*ECG159,*HEP17
BC309B	2N2945A,2N3527,2N3702,2N3906,2N4034,2N4035,2N4415,2N4980,2N5244,2N5375,2N5379,2N5447,2N6001,1A178A,1A178B,1A179A,BC178,BC179,BC192,BCY78,8S475,C9083,C9085,GI-3702,MM3906,MP5370E,T1593-GRN,T1593-YEL,TQ62
BC309C	2N2945A,2N3527,2N3702,2N3906,2N4034,2N4035,2N4415,2N4980,2N5244,2N5375,2N5379,2N5447,2N6001,1A178A,1A178B,1A179A,BC178,BC179,BC192,BCY78,8S475,C9083,C9085,GI-3702,MM3906,MP5370E,T1593-BLU,T1593-GRN,T1593-VIO,TQ60
BC340-06	2N4413,2N5244,2N5378,2N5379,2N6003,2N6009,BC179,BCY78,T1593-GRY
BC340-10	2N2176,2N2017,2N2108,2N2118,2N2270,2N2410,2N2537,2N2846,2N2846A,2N2868,2N3015,2N3326,2N3326A,2N3467,2N3724A,2N4046,2N4238,2N4960,2N5145,2N5203,25C504,8S475,8S475,8S502,TN59
BC340-16	2N1420A,2N3053,25C503,25C504,TA32,*ECG128
BC341-06	2N1420A,2N2192,2N2192A,2N2192B,2N2219,2N2538,2N3300,2N4385,2N5106,8S475,TN59,*ECG128
BC341-10	2N1613,2N1613A,2N1716,2N1837A,2N2017,2N2108,2N2193,2N2193A,2N2193B,2N2218,2N2218A,2N2224,2N2270,2N2410,2N2537,2N2846,2N2846A,2N2868,2N3015,2N3109,2N3299,2N3326,2N3326A,2N3722,2N3725A,2N4047,2N4238,2N4960,2N4961,25C503,8S475,8S475,8S502,TN59
BC361-10	2N1420A,2N2049,2N2219A,2N3053,25C503,40635,*ECG128
BC360-06	2N2800,2N3244,2N3245,2N4040,2N4032,2N5042
BC360-10	2N2801,2N3244,2N4037,2N4890,40537,*ECG129
BC360-16	40537,*ECG129
BC361-06	2N4030,2N4032,2N4404
BC361-10	2N4037,2N4890,40537,40634,*ECG129

Q1 Q2	To Replace	Substitute This Type
	BC1274	SEE 2N2294
	BC1274A	SEE 2N2295
	BC1274B	SEE 2N2296
	BCY10	BCY12,MM4052,*ECG159,*HEP51,*GE-21,*TR-28,*DS-26,*SP70
	BCY11	*SP70,*DS-26,*TR-28,*GE-21,*HEP51,*ECG159
	BCY12	*ECG159,*HEP52,*GE-21,*TR-28
	BCY30	2N928,2N1232,2N1474,2N1474A,BCY31,SHA7534,SHA7539,*ECG129,*HEP52,*SP70,*DS-26,*GE-21
	BCY31	2N928,2N1233,2N1475,2N4982,SHA7538,*GE-21,*DS-26,*SP70,*HEP52,*ECG129
	BCY33	2N3280,2N923,2N924,2N926,2N1026,2N1219,2N1230,2N1441,2N3219,2N3979,2N4008,BCY34,MM4052,SHA7533,*GE-21,*TR-28,*SP70,*DS-26,*HEP52,*ECG129
	BCY34	2N3298,2N924,2N926,2N1231,2N1442,2N1469,2N3219,2N3979,SHA7537,*ECG129,*HEP52,*DS-26,*SP70,*TR-28,*GE-21
	BCY58	BCY59,*ECG159,*HEP50,*GE-20,*SN80,*DS-66,*SK3020
	BCY58A	A1578,BC107,BC107B,BC108,BC108B,BC109C,BC1718,BC1728,BCY58B,BCY58C,BCY59A,BCY59B,*ECG159,*ECG159
	BCY58B	A1578,BC107B,BC108B,BC109,BC109C,BC1718,BC1728,BCY58C,BCY59B,BCY59C,*ECG159
	BCY58C	BC107B,BC108B,BC109,BC109C,BCY58D,BCY59C,BCY59D,*ECG159
	BCY58D	BC108C,BC109B,BC172C,BCY59D,*ECG159
	BCY59	BCY65,*ECG159,*SK3020,*DS-66,*FN10,*GE-17,*HEP50
	BCY59A	2N4953,2N5370,2N5376,2N5377,A1578,BC107,BC107B,BC1718,BCY59B,BCY59C,*ECG159
	BCY59B	2N4953,2N5370,2N5376,BC107B,BC1718,BCY59C,*ECG159
	BCY59C	2N4953,2N5370,BC107B,BCY59D,*ECG159
	BCY59D	*ECG159
	BCY65	*ECG128
	BCY66	BCY59,BCY65,*ECG128
	BCY78	2N3251,2N5378,2N5379,2N6003,2N6007,BCY79,*ECG159
	BCY78A	2N2838,2N3251,2N3504,2N4413,2N4415,2N5375,2N5378,2N5379,2N5813,2N5817,2N5819,2N6001,2N6005,2N6011,BSW73,D29E02,D29E05,D29E06,FT3645,MM3906,TS193-BLU,TS193-GRY,TS193-V10,TQ60
	BCY78B	2N3251,2N3964,2N4413,2N4415,2N5378,2N5379,2N5813,2N5819,2N6003,2N6007,2N6009,2N3964,2N4413,2N6003,2N6007,2N6009,2N6013,D29E07
	BCY78C	
	BCY78D	
	BCY79	2N2907,2N2907A,2N3251,2N3251A,2N6007,*ECG159
	BCY79A	2N2838,2N2907,2N2907A,2N3251,2N3251A,2N3486,2N3504,2N3505,2N3912,2N3915,2N3962,2N4354,2N4355,2N4413A,2N4415A,2N5373,2N5374,2N5817,2N5819,2N6005,2N6011,D29E05,D29E06,FT3644,FT3645,GET2906,GET2907
	BCY79B	2N2907,2N2907A,2N3251,2N3251A,2N3962,2N3964,2N3965,2N4354,2N4415A,2N5374,2N5819,2N6007,2N6013,D29E06,D29E07
	BCY79C	2N3964,2N3965,2N4413A,2N5374,2N6007,2N6013,D29E07
	BC210	2N4008,MM4052,*SP70,*DS-26,*GE-21,*TR-19,*ECG159,*HEP52
	BC211	2N4008,*HEP739,*ECG159,*TR-19,*GE-21,*SP70
	BC212	*TR-28,*ECG159,*HEP52
	BC213	2N8600,2N2274,2N2971,MP56580,SA411,*HEP52,*ECG159,*TR-19,*GE-21,*SP70,*DS-56
	BC214	2N8600,2N2274,2N2971,MP56580,SA411,*DS-56,*SP70,*GE-21,*TR-19,*ECG159,*HEP52
	BD106A	BDY15A,*ECG152
	BD106B	BDY15B,*ECG152
	BD107A	BDY16A,HST5901,HST5902,*ECG152
	BD107B	BDY16B,HST5911,HST5912,*ECG152
	BD109	*ECG152
	BD130	2N3236,2N5629,2N5630,2N5930,2N5933,2N5936,108T2,156-104,156-124,1743-1010,1743-1030,1743-1220,HST9202,HST9203,HST9207,HST9208,MJ3772,*ECG130
	BDY10	*ECG150,*SK3036,*GE-14
	BDY11	*GE-14,*SK3036,*ECG130
	BDY12	BDY13,*ECG152
	BDY13	*ECG152
	BDY15A	BD106A,*ECG155
	BDY15B	BD106B,*ECG155
	BDY15C	*ECG155
	BDY16A	BD107A,HST5901,HST5902,*ECG155
	BDY16B	BD107B,HST5911,HST5912,*ECG155
	BDY23A	HST9201,HST9205,HST9206,HST9801,HST9802
	BDY23B	180T2
	BDY23C	
	BDY24A	2N3446,HST9202,HST9203,HST9207,HST9208,HST9803,HST9804
	BDY24B	2N3446,181T2
	BDY24C	
	BDY25A	
	BDY25B	182T2
	BDY25C	
	BDY26A	
	BDY26B	183T2
	BDY26C	
	BDY27A	BDY28A
	BDY27B	184T2,185T2,BDY28B
	BDY27C	BDY28C
	BDY28A	
	BDY28B	185T2
	BDY28C	
	BF110	*ECG154
	BF111	*ECG154
	BF114	*ECG154
	BF115	25CG107,*ECG123A,*HEP50,*SK3019,*DS-74,*TR-24,*GE-20
	BF117	*ECG154
	BF118	*ECG154
	BF119	*ECG154
	BF120	
	BF121	*ECG107,*TR-25
	BF123	*TR-25,*ECG107
	BF125	*ECG107,*TR-25
	BF127	*TR-24,*ECG107
	BF137	BF119,BF257
	BF167	2N3337,2N3338,2N3339,BF173,BF232,BFX60,*EN10,*GE-17,*ECG161,*HEP50
	BF168	*HEP56,*ECG161,*GE-17,*EN10
	BF173	BF168,*HEP56,*ECG161,*GE-17,*EN10,*SK3018

TRANSISTOR SUBSTITUTES

BF177--BSX48

To Replace	Substitute This Type
BF177	2SC69, 2SC154, MM3000, SF, T186, *ECG154
BF178	BF179A, *ECG154
BF179A	BF178, *ECG154
BF179B	BF179C, *ECG154
BF179C	*ECG154
BF184	*ECG161, *GE-17, *EN10
BF185	2SC477, *0242, *EN10, *GE-17, *TR-22, *ECG161
BF194	*HEP734, *ECG107, *SK3018
BF195	*SK3018, *ECG107, *HEP734, *TR-22
BF232	*ECG161
BF257	BF119, BF137, *ECG154
BF258	BF118, BF259, *ECG154
BF259	*ECG154
BFX55	
BFX59	2N2708
BFX60	BF168, BF173, *ECG161
BFX62	2N4253, BF232, MT1061, *ECG161
BFY10	2N708A, 2N718, 2N731, 2N742, 2N759, 2N759A, 2N780, 2N1410, 2N1838, 2N1959, 2N2315, 2N2396, 2N2483, 2N2521, 2N2523, 2N2952, 2N3301, 2N3641, 2N3642, 2N3946, 2N3973, 2N3975, 2N4140, 2SC806, BFY39-1, 8SY93, EN697, FT3641, FT3642, GET2221, GI-3641, GI-3642, MM2483, MFS3693, MFS6565, MFS6591, PET1001, TIS87, *ECG128, *SK3018, *DS-81, *GE-20, *TR-25, *HEP53, *U8
BFY11	2N718, 2N731, 2N760, 2N916, 2N916A, 2N1838, 2N2315, 2N2396, 2N3862, 2N3903, 2N3946, 2N3974, 2N3976, 2N4227, 2N4951, 2N4962, 2N5027, 2N5144, 2N5368, 2N5824, 2SC318, 2SC852, MM3903, MFS693, MFS6565, MFSA05, PET1001, *U8, *HEP53, *GE-17, *DS-81, *SK0018, *EN10, *ECG128
BFY27	SEE 2N915
BFY33	*SN80, *HEP53, *GE-20, *ECG123A
BFY34	*ECG128, *GE-20, *SN80
BFY39-1	2N708A, 2N916, 2N916A, 2N3115, 2N3301, 2N3641, 2N3642, 2N3903, 2N3946, 2N3974, 2N3976, 2N4140, 2N4400, 2N4962, 2N5027, 2N5144, 2SC318, FT3641, FT3642, GET2221, GI-3641, GI-3642, MM3903, MFS6530, MFS6531, *TR-24
BFY39-2	2N222, 2N3116, 2N3302, 2N3904, 2N3947, 2N4141, 2N4401, 2N4952, 2N5028, 2N5107, 2N5369, 2N5377, 2N6006, 2SC943, BC107, BC107A, BC1714, BCY594, FT3643, GET2222, GI-3643, MM3904
BFY39-3	2N4953, 2N5370, 2N6006, A1578, BC107B, BC1718, BCY598, BCY59C, TIS97
-BFY40	40635, *ECG128, *GE-18, *SK3024
-BFY41	BSY55
BFY45	*ECG154
BFY46	*ECG128, *GE-18, *SK3024
-BFY50	*U8, *HEP53, *ECG128, *GE-17, *DS-81, *EN10, *SK3024
-BFY51	*SK3024, *EN10, *DS-81, *GE-17, *ECG128, *HEP53, *U8
-BFY52	*ECG128, *SK3024
BFY65	2N3108, *ECG154
BFY66	SEE 2N918
BFY69A	2N2319, 2N4123, 2N4264, 2N4295, 2N4420, 2N4421, 2N4422, 2SC356, 2SC536, 2SC715, BC1738, BFY69B, D26C1, MFS3646, *TR-21, *ECG107
BFY69B	BFY69A, D26C1, *ECG107, *TR-21
BFY80	2N2463, *ECG154
BR100A	SEE 2N5527
BR100B	
BR100C	SEE 2N5528
BR100D	
BR100E	SEE 2N5529
BR100F	SEE 2N5530
BR101A	SEE 2N5531
BR101B	
BR101C	SEE 2N5532
BR101D	
BR101E	SEE 2N5533
BR101F	SEE 2N5534
BR200A	SEE 2N5535
BR200B	SEE 2N5536
BR201A	SEE 2N5537
BR201B	SEE 2N5538
BR300A	HST7014, HST7015, HST7017, HST7018
BR300B	HST7014, HST7015, HST7017, HST7018
BR301A	HST7016, HST7019, HST7140
BR301B	HST7016, HST7019, HST7140
BR400A	HST7014, HST7015, HST7017, HST7018
BR400B	HST7014, HST7015, HST7017, HST7018
BR401A	
BR401B	HST7016, HST7019, HST7140
-BSC-1015	
-BSC-1015A	
-BSC-1015B	
-BSC-1016	
-BSC-1016A	
-BSC-1016B	
BSW72	2N2906, 2N2906A, *ECG159
BSW73	2N2907, 2N2907A, 2N3504, 2N3505, 2N6005, FT3644, FT3645, *ECG159
BSW74	*ECG159
BSW75	*ECG159
BSW82	2N2221, 2N2539, 2N4962, *ECG123A
BSW83	2N2222, 2N2540, 2N6010, *ECG123A
BSW84	2N2221A, 2N4963, 2N5581, FT3722, SE8012, *ECG123A
BSW85	2N2222A, 2N5582, SE6021, SE6021A, *ECG123A
BSX22	*SK3024, *GE-18, *ECG128
BSX23	
BSX25	2N706C, 2N742, 2N743A, 2N758, 2N758A, 2N759, 2N759A, 2N759B, 2N783, 2N834, 2N834A, GET706, MFS834, MFS437, *HEP56, *EN10, *TR-25, *GE-17, *ECG123A
BSX38	2N708A, 2N784A, 2N916, 2N916A, 2N957, 2N2481, 2N2501, 2N3013, 2N3014, 2N3511, 2N3647, 2N4123, 2N5144, 2SC67, 2SC68, 2SC468, 2SC639, 2SC764, EN916, GET2369, *ECG123A, *HEP50, *EN10, *GE-17
-BSX40	2N3244, 2N5023, 2N5042, SE8541, SE8542, *ECG129, *SK3025
-BSX41	*ECG129
BSX45	BSX46, *ECG128, *SK3024
BSX46	BSX45, *ECG128
BSX48	BSX49, *ECG123A

O D S1	To Replace	Substitute This Type
BSX49		*ECG123A
BSX62		HST4455, HST9011, *ECG128
BSX63		2N2297, 2N2594, 83A65, HST4453, HST4454, HST5002, HST5003, HST5502, HST5503, HST9009, SDT5002, SDT5003, SDT5502, SDT5503, *ECG128
BSY10		2N736, 2N736A, 2N736B, 2N760A, 2N750B, 2N915, 2N956, 2N1566, 2N2390, 2N2516, 2N3077, 2N3643, 2N3903, 2N3974, 2N3976, 2N3977, 2N4227, 2N4951, 2N4962, 2N4963, 2N5368, 2SC943, 8C110, ENL1613, ENL1711, FT3569, GET929, T1599, *ECG123, *HEP53
BSY11		2N736B, 2N760A, 2N760B, 2N909, 2N930B, 2N956, 2N1420, 2N1507, 2N1566, 2N1972, 2N2484, 2N2516, 2N2522, 2N2524, 2N2645, 2N2960, 2N2961, 2N3077, 2N3569, 2N3664, 2N3904, 2N3947, 2N4141, 2N4409, 2N4952, 2N5028, 2N5107, 2N5349, 2SC943, 8C110, ENL1613, ENL1711, FT3569, GET929, T1599, *ECG123, *HEP53
BSY17		*GE-17, *EN10, *ECG123A, *HEP50
BSY18		*HEP50, *ECG123A, *EN10, *GE-17
BSY19		SEE 2N708
BSY21		SEE 2N914
BSY34		*ECG123A, *HEP53
BSY44		SEE 2N1613
BSY45		SEE 2N1893
BSY46		SEE 2N2193
BSY51		2N1837A, 2N2218, 2N2218A, 2N2537, 2N2846, 2N2848, 2N3015, 2N3299, 2N3326, 2N3678, 2N3722, 2N3725A, 2N4047, 2N4960, 2N4961, 40635, BSY53, TNS3, *GE-20, *SN80, *ECG128
BSY52		2N2219, 2N2538, 2N3300, 2N5106, BSY54, *ECG128, *SN80, *GE-20
BSY53		40635, *GE-20, *SN80, *SK3024, *ECG128
BSY54		*ECG128, *SN80, *GE-20
BSY55		2N193A, *GE-20, *ECG128
BSY56		2N3019, 2N4943, *ECG128
BSY58		BSY34, *ECG123A, *HEP53
BSY61		2N3241A, 85W83, *ECG123A
BSY62		*ECG123A, *HEP50, *GE-17, *EN10, *SK3019, *DS-74
BSY63		*EN10, *GE-17, *HEP50, *ECG123A
BSY70		SEE 2N706
BSY71		SEE 2N1711
-BSY72		2N3227, 2N3241A, 2N3242A, 2N4124, 2N4265, 2N4954, 2N5371, 2N6000, 8C108A, 8C172A, 8C173C, 8C1758A, 85W83, *ECG108, *GE-17, *HEP50, *EN10, *DS-74, *SK3019
-BSY73		2N708, 2N744A, 2N784A, 2N914, 2N2318, 2N2319, 2N2331, 2N2481, 2N2501, 2N2656, 2N2710, 2N3011, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3664, 2N3667, 2N3668, 2N4123, 2N4264, 2SC67, 2SC68, 2SC321, 2SC356, 2SC427, 2SC595, 2SC601, 2SC601A, 2SC639, 2SC689, 2SC764, 8C173B, 85W82, GET708, GET914, GET2369, GET3013, GET3014, GET3646, *PT20, *SK3019, *DS-74, *EN10, *HEP50, *GE-17, *TR-21, *ECG123A
-BSY74		2N3227, 2N3241A, 2N3242A, 2N4124, 2N4265, 2N4954, 2N5371, 2N6000, 8C108A, 8C172A, 8C173C, 8C1758A, 85W83, *ECG123A, *GE-17, *HEP50, *EN10, *DS-74, *SK3019
-BSY75		2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2481, 2N2501, 2N2710, 2N2952, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3664, 2N3667, 2N3668, 2N4123, 2N4264, 2N4265, 2N4952, 2N4954, 2N5027, 2N5144, 2SC67, 2SC68, 2SC318, 2SC321, 2SC427, 2SC601, 2SC601A, 2SC639, 2SC689, 2SC764, 8C173B, 85W82, FT3642, FT3643, FT3646, GET708, GET914, GET2221, GET2369, GET3013, GET3014, GET3646, GI-3641, GI-3642, MM3903, MP56530, MP56531, *EN10, *HEP50, *GE-17, *ECG123A
-BSY76		2N2522, 2N1516, 2N3521, 2N3242A, 2N3302, 2N3904, 2N3947, 2N4141, 2N4401, 2N4952, 2N4954, 2N5028, 2N5107, 2N5369, 2N5371, 2N5377, 2N6004, 2SC943, 8C107A, 8C117A, 8C159A, 8C173B, 85W83, FT3643, GET2222, GI-3643, MM3904, *ECG123A, *GE-17, *HEP50, *EN10
-BSY77		2N2459, 2N2464, 2N2515, 2N4963, 85W84, FT3722, GET2221A, SE8012, *EN10, *GE-17, *ECG128
-BSY78		2N2461, 2N2462, 2N2465, 2N2466, 85W85, GET2222A, T1598, *ECG128
BSY79		2N2518, 2N4068, 2N5184, 4035A, T15101, *EN10, *ECG128, *GE-17, *EN10
-BSY80		8C108B, 8C109, 8C109C, 8C1728, 8C1758, *EN10, *SK3019, *DS-5, *GE-17, *ECG123A, *HEP55
BSY81		2SC371, *ECG128, *GE-18, *SK3024
BSY82		*ECG128
BSY83		*ECG128, *SK3024, *GE-18
BSY84		*ECG128
BSY85		*ECG128
BSY86		*ECG128
BSY87		BSY55, *ECG128, *GE-18, *SK3024, *HEP713
BSY88		2N4943, BSY56, *HEP713, *ECG128
BSY90		*ECG128, *SN80, *GE-20
BSY91		2N122, 2N3295, 2N5188, 2SC31, 2SC151, 2SC152, *GE-17, *TR-25, *EN10, *SK3024, *ECG128
BSY92		2N656, 2N1613A, 2N2848, 2N2951, 2N3015, 2N3109, 2N3299, 2N3326, 2N4960, 2N4961, 2SC32, 2SC594, *ECG128, *SK3024, *EN10, *TR-25, *GE-17
BSY93		2N718, 2N718A, 2N731, 2N735A, 2N915, 2N929A, 2N2315, 2N2317, 2N2396, 2N2483, 2N2515, 2N2523, 2N2847, 2N2952, 2N3001, 2N3641, 2N3642, 2N3903, 2N3946, 2N3973, 2N3974, 2N3975, 2N3976, 2N4140, 2N4496, 2N4963, 2N5027, 8C110, EN697, EN1613, ENL1711, FT3567, FT3568, FT3646, FT3647, FT3722, GET929, GET2221, GET2221A, MM2483, MM3903, *GE-20, *TR-25, *SN80, *ECG123A, *HEP56
-BSY95A		*GE-17, *TR-21, *EN10, *ECG123A, *HEP56
BUY12		
BUY13		
BUY14		
C9080		2N329B, 2N722, 2N722A, 2N1132, 2N1442, 2N1443, 2N2394, 2N2946, 2N2946A, 2N3840, 2N3857, 2N3981, 2N502, 85W72, C9082, C908B, T061, T062, TML35, *TR-19
C9081		2N2303, 2N2946A, 2N3502, 2N3504, 2N3527, 2N3857, 2N4414, 2N4415, 2N4980, 2N6001, 2N6005, 85W73, C9083, C9085, FT3645, TQ59, TQ60, TQ61, TQ62, *TR-19
C9082		2N722, 2N722A, 2N2394, 2N2946, 2N2946A, 2N3840, 2N4981, 85W72, C908A, TQ62, TML35, *TR-19
C9083		2N2946A, 2N3504, 2N3527, 2N4415, 2N4980, 2N6001, 2N6005, 85W73, C9085, FT3645, TQ60, TQ62, *TR-19
C9084		2N2394, 2N2946, 2N2946A, 2N3840, 2N4981, *TR-19
C9085		2N2946A, 2N3527, 2N4980, *TR-19
-CAD204		*SK3004
CDT1309		*GE-3, *ECG121, *HEP230
CDT1310		2N392, CDT1311, CDT1319, *HEP230, *ECG121, *GE-16, *TR-01
CDT1311		2N392, CDT1312, *TR-01, *GE-16, *ECG121, *HEP232
CDT1312		CDT1313, *ECG121, *GE-16, *TR-01
CDT1313		*GE-25
CDT1315		2N1906, 2N2293, KR6503, *GE-25
CDT1316		2N392, CDT1310, CDT1311, *GE-16, *TR-01, *ECG121, *HEP230
CDT1320		2N561, 2N1531, 2N1536, 2N2145, 2N2145A, 2N3615, AS215, CDT1321, SF-T240, *HEP232, *ECG121, *TR-01, *GE-16
CDT1321		2N561, 2N1531, 2N1532, 2N1536, 2N1537, 2N2145, 2N2145A, 2N2146A, 2N2146B, 2N3615, 2N3616, AS215, CDT1322, SF-T240, *GE-25, *TR-01, *ECG121, *HEP232

TRANSISTOR SUBSTITUTES

COT1322-CQ1111A

To Replace	Substitute This Type
COT1322	2N1532, 2N1533, 2N1537, 2N1538, 2N3616, *HEP625, *GE-25
-CK4	*ECG126, *HF6M, *AA1
-CK44	*AA1, *HF6M, *ECG126
-CK13	*ECG102A, *HF20M, *SK3005, *DS25, *AA1, *TR-05, *GE-9, *HEP3
-CK14	2N829, 2N964, 2N972, 2N985, *ECG100, *SK3005, *DS-25, *HF12M, *AA1, *GE-1, *HEP254
-CK16	2N964, 2N965, 2N966, 2N972, 2N973, 2N974, 2N985, *ECG100, *HF20M, *AA1, *GE-1, *HEP254
-CK17	*ECG100, *DS-25, *HF20M, *SK3005, *GE-1, *HEP254, *AA1
-CK22	*ECG102A, *DS-26, *SK3004, *AT20H, *GE-2, *HEP253, *AA1
-CK22A	*AA1, *HEP254, *TR-05, *GE-2, *AT20H, *SK3004, *DS-26, *ECG102A
-CK228	*ECG102A, *DS-26, *SK3004, *AT20H, *GE-2, *TR-05, *HEP253, *AA1
-CK22C	*AA1, *HEP253, *TR-05, *GE-2, *AT30H, *SK3004, *DS-26, *ECG102A
-CK25	MM380, *ECG100, *DS25, *SK3005, *HF6M, *GE-1, *HEP254, *AA1
-CK26	MM380, *ECG100, *DS25, *SK3005, *HF6M, *GE-1, *HEP254, *AA1
-CK27	*ECG100, *DS-25, *SK3005, *HF12M, *GE-1, *HEP254, *AA1
-CK28	*ECG126, *DS25, *SK3008, *HF20M, *GE-9, *AA1
-CK28A	*AA1, *GE-1, *HF20M, *SK3008, *DS25, *ECG126
-CK64	*ECG102A, *DS-26, *SK3004, *AT30H, *GE-2, *AA1, *HEP253
-CK65	*ECG102A, *DS-26, *SK3004, *AT30H, *GE-2, *AA1, *HEP253
-CK65A	*HEP253, *AA1, *GE-2, *AT30H, *SK3004, *DS-26, *ECG102A
-CK66	*ECG102A, *DS-26, *SK3004, *AT20H, *GE-2, *AA1, *HEP253
-CK66A	*HEP253, *AA1, *GE-2, *AT30H, *SK3004, *DS-26, *ECG102A
-CK67	*ECG102A, *DS-26, *SK3004, *AT20H, *GE-2, *AA1, *HEP253
-CK258	
-CK298	
-CK311	
-CK312	
-CK313	
-CK314	
-CK315	
-CK398	
-CK419	2N719A, 2N2518, 2N4390
-CK420	2N707A, 2N757A, 2N758B, 2N310, 2N2520, *ECG128, *TR-25
-CK421	
-CK422	2N717, 2N730, 2N757A, 2N758A, 2N2314, 2N2395, *TR-25, *ECG128
-CK474	2N707A, 2N758A, 2N758B, 2N2310, 2N2520, *ECG128, *TR-25
-CK475	2N717, 2N730, 2N757A, 2N758A, 2N758B, 2N2314, 2N2395, 25C30, *TR-25, *ECG128
-CK476	2N708A, 2N718, 2N718A, 2N731, 2N915, 2N2312, 2N2315, 2N2317, 2N2389, 2N2390, 2N2396, 2N2483, 2N2523, 2N2952, 2N3301, 2N3641, 2N3642, 2N3903, 2N3966, 2N3973, 2N3974, 2N3975, 2N3976, 2N4140, 2N4962, 2N5027, 2N5144, 2N5824, 25C318, 85M84, 85Y39, 86E97, 86L613, 86N171, F13641, 2N1864, 2N187A, 2N315, 2N1195, 2N2929, NK1215, NKT225, SF. T221, *ECG102, *HEP253, *TR-05, *GE-2, *AT20M, *DS-26, *SK3004, *AA1
-CK477	2N1864, 2N187A, 2N315, 2N1195, 2N2929, NK1215, NKT225, SF. T221, *ECG102, *HEP253, *TR-05, *GE-2, *AT20M, *DS-26, *SK3004, *AA1
-CK722	2N602, 2N604, 2N61, 2N61A, 2N188A, 2N270, 2N270A, 2N320, 2N363, 2N396A, 2N4148, 2N414C, 2N610, 2N611, 2N1192, 2N1313, 2N1348, 2N1349, 2N1350, 2N1351, 2N1372, 2N1383, 2N1414, 2N1415, 2N1681, 2N3883, 25B89, 25B156A, 25B185, 25B200, MM380, NK1214, NK1224, SF. T222, SF. T322, SF. T352, *AA1, *SK3004, *DS-26, *AT20M, *GE-2, *TR-05, *HEP253, *ECG102
-CK725	2N1357, 2N1374, 2N1376, 2N1381, 2N1382, 2N1706, 2N1707, 25B186, 25B187, 25B188, 25B496, SF. T223, SF. T323, SF. T353, *ECG102, *HEP253, *TR-05, *GE-2, *AT30H, *DS-26, *SK3004, *AA1
-CK727	2N140, 2N219, 2N302, 2N303, 2N322, 2N323, 2N396, 2N411, 2N412, 2N450, 2N481, 2N482, 2N483, 2N485, 2N521, 2N559, 2N711, 2N711A, 2N711B, 2N794, 2N795, 2N829, 2N829A, 2N965, 2N966, 2N967, 2N972, 2N973, 2N974, 2N975, 2N976, 2N1097, 2N1098, 2N1115, 2N1265/5, 2N1280, 2N1345, 2N1347, 2N1683, 2N4200, 2N219, 2N320, 2N352, 25A12, 25A13, 25A15, 25A16, 25A201, 25A202, 25A209, 25A202, 25A283, 25A284, 25A351, 25A352, 25A356, 25A372, 25A412, 25A472-2, 25A472-5, 25B173, 25B365, 40488, ASZ21, SF. T307, SF. T319, SF. T320, SYL792, *AA1, *SK3004, *DS-26, *AT30H, *GE-2, *TR-05, *HEP253, *ECG102
-CK751	*ECG102, *HEP253, *GE-2, *AT30H, *DS-26, *SK3004, *AA1
-CK754	*DS-25, *GE-1, *HEP254, *ECG102
CK759	SEE 2N111
CK760	SEE 2N112
CK761	SEE 2N113
CK762	SEE 2N114
CK766	SEE 2N21T
-CK768	2N111A, 2N112A, 2N315A, 2N316A, 2N425, 2N426, 2N427, 2N428, 2N581, 2N741, 2N741A, 2N1018, 2N1343, 2N2381, 2N2929, 25A414, *ECG100, *HEP254, *TR-05, *GE-1, *DS-25, *HF12M
-CK790	2N925, 2N1232, 2N1439, 2N1440, 2N1441, 2N1474A, 2N3345, BCY30, SHA753A, *HEP254, *DS-26, *AT20M, *ECG102, *TR-28, *GE-2
-CK791	2N923, 2N924, 2N926, 2N1026, 2N1230, 2N1441, 2N1642, 2N2319, 2N3344, 2N3345, 2N3346, 2N3979, 2N4008, MM4052, SHA753, *GE-2, *TR-19, *ECG102, *HEP254, *DS-26, *HEP254
-CK793	2N923, 2N925, 2N1026, 2N1230, 2N1441, 2N1642, 2N3345, 2N4008, MM4052, SHA753, *HEP254, *DS-26, *AT20M, *ECG102, *TR-19, *GE-2
-CK870	*ECG102, *TR-05, *GE-2, *AT20M, *DS-26, *HEP254
-CK871	25B155, *HEP3, *DS-56, *HF35, *GE-9, *TR-05, *ECG102
-CK882	2N59, 2N59A, 2N362, 2N397, 2N417, 2N508A, 2N598, 2N654, 2N655, 2N1008A, 2N1128, 2N1175, 2N1175A, 2N1193, 2N127, 2N1307, 2N1309, 2N1316, 2N1354, 2N1355, 2N1356, 2N1357, 2N1370, 2N1374, 2N1375, 2N1381, 2N1382, 2N1706, 2N1707, 2N1998, 2N428, 2N2429, 2N2706, 2N2957, 2N3371, 25B22, 25B186, 25B187, 25B188, 25B265, 25B345, 25B346, 25B371, 25B439, 25B440, 25B496, 40269, NKT211, SF. T125, SF. T125P, SF. T223, SF. T323, SF. T353, *ECG102, *TR-05, *GE-2, *AT30H, *DS-26, *SK3004, *HEP253, *AA1
-CK888	2N359, 2N523, 2N827, 2N1282, 2N1309, 2N1346, 2N1378, 2N1379, 2N1380, 2N1471, 2N2048, 25A452, MA1703, MA1706, *AA1, *HEP253, *SK3004, *DS-26, *AT30H, *GE-2, *TR-05, *ECG102
CK942	SEE 2N1623
CQ790A	2N1166, 2N1166A, 2N1556A
CQ790B	
CQ790BA	
CQ1075	
CQ1076	
CQ1077	CQ1076
CQ1110	2N392, 2N1137, 2N1138, 2N1168, 2N1544, 2N1544A, 2N1545, 2N1545A, 2N4246, 2N4247, CQ1110A, CQ1111, CQ1111A
CQ1110A	2N392, 2N1137, 2N1138, 2N1168, 2N1544, 2N1544A, 2N1545, 2N1545A, 2N4246, 2N4247, CQ1110, CQ1111, CQ1111A
CQ1111	2N392, 2N1137, 2N1138, 2N1168, 2N1544, 2N1544A, 2N1545, 2N1545A, 2N4246, 2N4247, CQ1110, CQ1110A, CQ1111A
CQ1111A	2N392, 2N1137, 2N1138, 2N1168, 2N1544, 2N1544A, 2N1545, 2N1545A, 2N4246, 2N4247, CQ1110, CQ1110A, CQ1111A

TRANSISTOR SUBSTITUTES

D29E08-DTG110

Q1 To Replace	Substitute This Type
D29E08	2N4027, 2N5821, D29E09
D29E08J1	D29E09J1
D29E09	2N4027, 2N5821, 2N5823, D29E10
D29E09J1	D29E10J1
D29E10	2N4029, 2N5823, *ECG159
D29E10J1	
D30A1	*ECG159, *TR-19
D30A2	BC202, *ECG159
D30A3	*ECG159
D30A4	*ECG159
D30A5	*ECG159
D31B	SEE D410
D33D21	2N5810, 2N5816, 2N6010, *ECG123A
D33D21J1	D33D24J1, D33D25J1
D33D22	2N5812, 2N6012, *ECG123A
D33D22J1	D33D26J1, D33D27J1
D33D24	2N2539, 2N2897, 2N2900, 2N4962, 2N5814, 2N5816, 2N5820, 2N5822, 40458, D33D25, D33D29,
	D33D30, TN54, *ECG123A
D33D24J1	D33D25J1, D33D29J1, D33D30J1
D33D25	2N2222, 2N2224A, 2N2540, 2N5582, 2N5816, 2N5818, 2N5822, 2N6010, 2N6014, 40458, D33D26,
	D33D30, *ECG123A
D33D25J1	D33D26J1, D33D30J1
D33D26	2N5818, 2N6012, 2N6016, D33D27, *ECG123A
D33D26J1	D33D27J1
D33D27	2N6012, 2N6016, *ECG123A
D33D27J1	
D33D28	2N2221A, 2N4963, 2N5581, 2N5820, D33D25, TN54, *ECG123A
D33D28J1	D33D29J1
D33D29	2N4963, 2N5820, 2N5822, D33D30, TN54, *ECG123A
D33D29J1	D33D30J1
D33D30	2N2222A, 2N5582, 2N5822, 2N6014, *ECG123A
D33D30J1	
D40D1	D40D4, *ECG152, *GE-28
D40D2	D40D5, *GE-28, *ECG152
D40D3	*ECG152, *GE-28
D40D4	D40D7, *GE-28, *ECG152
D40D5	D40D8, *ECG152, *GE-28
D40D7	*GE-28, *ECG152
D40D8	*ECG152, *GE-28
D40N1	D40N3, *GE-27, *ECG157
D40N3	*ECG157, *GE-27
D41D1	D41D4, *GE-29, *ECG153
D41D2	D41D5, *ECG153, *GE-29
D41D4	D41D7, *GE-29, *ECG153
D41D5	D41D8, *GE-29
D41D7	*GE-29, *ECG153
D41D8	*ECG153, *GE-29
D42C1	D42C4, *GE-28, *ECG152
D42C2	D42C3, D42C5, *ECG152, *GE-28
D42C3	D42C2, D42C5, *GE-28, *ECG152
D42C4	D42C7, *ECG152, *GE-28
D42C5	D42C8, *GE-28, *ECG152
D42C7	*ECG152, *GE-28
D42C8	*GE-28, *ECG152
D43C1	D43C4, *ECG153, *GE-29
D43C2	D43C3, D43C5, *GE-29, *ECG153
D43C3	D43C2, D43C5, *ECG153, *GE-29
D43C4	D43C7, *GE-29, *ECG153
D43C5	D43C8, *ECG153, *GE-29
D43C7	*GE-29, *ECG153
D43C8	*ECG153, *GE-29
D44C1	D44C4
D44C2	D44C3, D44C5, D44C6
D44C3	D44C2, D44C5, D44C6
D44C4	D44C7
D44C5	D44C6, D44C8
D44C6	D44C5, D44C8
D44C7	
D44C8	
D45C1	D45C4
D45C2	D45C3, D45C5, D45C6
D45C3	D45C2, D45C5, D45C6
D45C4	D45C7
D45C5	D45C6, D45C8
D45C6	D45C5, D45C8
D45C7	
D45C8	
DA3F3	
DP1657	SEE 2N2887
DS25	REFER TO SECTION 2
DS26	REFER TO SECTION 2
DS41	REFER TO SECTION 2
DS56	REFER TO SECTION 2
DS66	REFER TO SECTION 2
DS71	REFER TO SECTION 2
DS72	REFER TO SECTION 2
DS74	REFER TO SECTION 2
DS76	REFER TO SECTION 2
DS81	REFER TO SECTION 2
DS83	REFER TO SECTION 2
DS501	REFER TO SECTION 2
DS503	REFER TO SECTION 2
DS509	REFER TO SECTION 2
DS520	REFER TO SECTION 2
DS525	REFER TO SECTION 2
DTG110	*GE-3, *ECG121, *SK3009, *PT40, *HEP232

Q1 51 To Replace	Substitute This Type
DTG110A	*HEP236,*PT40,*SK3009,*GE-3
DTG110B	*HEP236
DTG600	*HEP236
DTG601	*HEP236
DTG602	*HEP236
DTG603	*HEP236
DTG603M	
DTG1010	*HEP235,*GE-25,*ECG127
DTG1110	*GE-25,*ECG127,*HEP235
DTG1200	*HEP236
DTG2000	*HEP236
DTG2100	*HEP236
DTG2200	*HEP236
DTG2300	
DTG2400	
DTG2400M	
DT5103	DTS105,DTS106,HST9202,HST9206,HST9207
DT5104	
DT5105	108T2,DTS106,DT5107,HST9202,HST9203,HST9207,HST9208
DT5106	108T2,DT5105,DT5107,HST9202,HST9203,HST9204,HST9207,HST9208,HST9209
DT5107	108T2,109T2,DT5106,HST9203,HST9204,HST9208,HST9209
DT5401	*ECG162
DT5402	*ECG163
DT5410	182T2,8DY25B,*ECG162
DT5411	2N5239,2N5240,*ECG162,*HEP707
DT5413	DT5423,*HEP707,*ECG162
DT5423	2N5240,*ECG162,*HEP707
DT5423M	2N3902,2N5240,DT5423,*HEP707,*ECG162
DT5424	*ECG163
DT5425	*ECG163
DT5430	*ECG162,*HEP707
DT5431	*HEP707,*ECG162
DT5431M	*ECG162
ECG100	REFER TO SECTION 2
ECG101	REFER TC SECTION 2
ECG102	REFER TC SECTION 2
ECG102A	REFER TO SECTION 2
ECG103	REFER TO SECTION 2
ECG103A	REFER TO SECTION 2
ECG104	REFER TO SECTION 2
ECG105	REFER TO SECTION 2
ECG106	REFER TO SECTION 2
ECG107	REFER TO SECTION 2
ECG108	REFER TO SECTION 2
ECG121	REFER TO SECTION 2
ECG123	REFER TO SECTION 2
ECG123A	REFER TO SECTION 2
ECG124	REFER TO SECTION 2
ECG126	REFER TO SECTION 2
ECG127	REFER TO SECTION 2
ECG128	REFER TO SECTION 2
ECG129	REFER TO SECTION 2
ECG130	REFER TO SECTION 2
ECG131	REFER TO SECTION 2
ECG132	REFER TO SECTION 2
ECG133	REFER TC SECTION 2
ECG134	REFER TO SECTION 2
ECG135	REFER TO SECTION 2
ECG136	REFER TO SECTION 2
ECG137	REFER TO SECTION 2
ECG138	REFER TO SECTION 2
ECG139	REFER TO SECTION 2
ECG160	REFER TO SECTION 2
ECG161	REFER TO SECTION 2
ECG162	REFER TO SECTION 2
ECG163	REFER TO SECTION 2
ECG164	REFER TO SECTION 2
ECG165	REFER TO SECTION 2
EN10	REFER TO SECTION 2
EN30	REFER TO SECTION 2
EN40	REFER TO SECTION 2
EN697	2N718,2N718A,2N731,2N736A,2N915,2N929A,2N2315,2N2317,2N2380A,2N2396,2N2483,2N2523,2N2847,2N3301,2N3641,2N3642,2N3903,2N3946,2N3974,2N3976,2N4140,2N4227,2N4962,2N4963,2N5027,2SC199,8C110,EN1613,EN1711,FT3567,FT3568,FT3641,FT3642,FT3722,GET929,GET2221,GET2221A,MM2483,MM3903,TS1599,*HEP736,*ECG123A
EN706	2N708,2N744A,2N784A,2N914,2N2318,2N2319,2N2369A,2N2501,2N2615,2N2656,2N3009,2N3011,2N3013,2N3014,2N3210,2N3564,2N3605A,2N3606A,2N3646,2N3688,2N3689,2N3690,2N3123,2N4137,2N4264,2N4275,2N4294,2N4295,2N4418,2N4419,2N4420,2N4422,2N4996,2N4997,2N5029,2SC67,2SC68,2SC321,2SC427,2SC468,2SC595,2SC601,2SC601A,2SC639,2SC689,2SC764,8C173B,EN708,EN914,EN2364A,EN3009,EN3011,EN3013,EN3014,GET708,GET914,GET2369,GET3013,GET3014,GET3646,MP3646,MP56512,MP5H10,MP5H11,MT1060A,PT720,PT2760,SE3005,SE5001,SE5002,SE5003,SE5006,TS162,*ECG123A,*HEP732,*TR-21
EN708	2N708,2N708A,2N744A,2N784A,2N914,2N916,2N916A,2N2501,2N2847,2N3013,2N3014,2N3210,2N3301,2N3605A,2N3606A,2N3646,2N3903,2N3946,2N4123,2N4140,2N4295,2N4420,2N4422,2N4962,2N5027,2N5029,2SC67,2SC68,2SC321,2SC427,2SC468,2SC601,2SC601A,2SC639,2SC689,2SC764,EN914,EN916,EN3013,EN3014,GET708,GET914,GET2221,GET2369,GET3013,GET3014,GET3646,MM2483,MM3903,MP3646,*ECG123A
EN718A	2N718A,2N736A,2N870,2N911,2N2317,2N2460,2N2464,8C110,EN870
EN722	2N722,2N722A,2N2394,2N2603,2N3703,2N4142,2N4946,2N5448,GET2904,GET2905,GI-3703,MP53703,*TR-28
EN744	2N720A,2N870,2N911,2N2460,2N2464,2N2509
EN870	2N2462,2N2466
EN871	
EN914	2N708,2N708A,2N744A,2N784A,2N914,2N916,2N916A,2N2501,2N2847,2N3013,2N3014,2N3210,2N3301,2N3605A,2N3606A,2N3646,2N3903,2N3946,2N4123,2N4140,2N4295,2N4420,2N4422,2N4962,2N5027,2SC67,2SC68,2SC321,2SC427,2SC468,2SC601,2SC601A,2SC639,2SC689,

Q1 To Replace	Substitute This Type
-FT34A	
-FT34B	
-FT34C	*GE-17,*EN10,*ECG154
-FT34D	*EN10,*GE-17
FT40	SEE 2N4251
FT45	SEE 2N4134
FT107A	
FT107B	
FT107C	
FT207A	SEE 2N4115
FT207B	SEE 2N4116
-FT400A	
-FT400B	
-FT709	2N709,2N2475,2N2784,2N3633,2N3955,2N3960,2N5200,2N5201,MT1060A,*GE-12,*PN66,*ECG108,*HEP56
-FT1341	2N708,2N7444,2N7844,2N914,2N2318,2N2501,2N2656,2N3011,2N3013,2N3014,2N3210,2N3605A,2N3606A,2SC67,2SC68,2SC321,2SC639,2SC764,GET708,GET914,GET2369,GET3013,GET3014,GET3646,PT720,*ECG159,*HEP52,*TR-21,*GE-17,*EN10
FT1702	SEE 2N4208
FT1746	2N3121,2N5448,FT5041,*ECG159,*GE-21,*TR-28,*SP70,*HEP52
FT3567	2N718A,2N736A,2N870,2N910,2N1889,2N3107,2N3109,2N4961,2N4963,2SC353,FT3568
FT3568	2N718A,2N736A,2N870,2N910,2N1889,2N3107,2N3109,2N4961,2N4963,2SC353,FT3567
FT3569	2N871,2N956,2N1890,2N2049,2N2645
FT3641	2N2848,2N3015,2N3299,2N4960,2N4961,2N4962,2N4963,FT3642
FT3642	2N2848,2N3015,2N3299,2N4960,2N4961,2N4962,2N4963,FT3641
FT3643	2N3300
FT3644	
FT3645	FT3644
FT3722	2N4961,2N4963
FT5040	2N5042,FT5041
FT5041	2N5042,2SA544,2SA552,2SA594
-FT7202A	2N4115
-FT7202B	2N4115,HST6313,HST6413
FT19H	SEE 2N3963
-FV914	2N3013,2N3014,2N3510,2N3511,2N3647,2N3648,MM3903,*EN10,*GE-17,*ECG108
-FV918	*ECG108,*GE-17,*EN10
-FV2369A	2N3511,*EN10,*GE-17,*ECG108
-FV2484	*ECG108,*GE-17,*EN10
-FV2894	*ECG106,*GE-21,*SP70
-FV3014	2N3013,2N3014,MM3903,*EN10,*GE-17,*ECG108
-FV3299	MM3903,*ECG108,*GE-17,*EN10
-FV3300	*EN10,*GE-17,*ECG108
-FV3502	2N3486,2N3486A,2N3673
-FV3503	2N3486,2N3486A,2N3673
FX709	
FX914	FX3013,FX3014
FX918	FX2369A
FX2368	FX2369A,FX3014
FX2369A	
FX2483	FX4960
FX2484	
FX2894	A3T2894
FX2894A	
FX3013	FX914,FX3014
FX3014	FX914,FX3013
FX3299	
FX3300	
FX3502	FX3503
FX3503	
FX3724	
FX3725	
FX3962	FX3963,FX3965
FX3963	
FX3964	FX3962,FX3965
FX3965	FX3962,FX3963
FX4034	
FX4046	FX3724
FX4047	FX3725
FX4207	
FX4960	
GE-1	REFER TO SECTION 2
GE-2	REFER TO SECTION 2
GE-3	REFER TO SECTION 2
GE-4	REFER TO SECTION 2
GE-5	REFER TO SECTION 2
GE-6	REFER TO SECTION 2
GE-7	REFER TO SECTION 2
GE-8	REFER TO SECTION 2
GE-9	REFER TO SECTION 2
GE-10	REFER TO SECTION 2
GE-11	REFER TO SECTION 2
GE-12	REFER TO SECTION 2
GE-13MP	REFER TO SECTION 2
GE-14	M.P. GE-3 REFER TO SECTION 2
GE-15MP	M.P. GE-14 REFER TO SECTION 2
GE-16	REFER TO SECTION 2
GE-17	REFER TO SECTION 2
GE-18	REFER TO SECTION 2
GE-19	REFER TO SECTION 2
GE-20	REFER TO SECTION 2
GE-21	REFER TO SECTION 2
GE-22	REFER TO SECTION 2
GE-23	REFER TO SECTION 2
GE-24MP	M.P. GE-23

Q1	To Replace	Substitute This Type
GI-3396 (ICNT)	MP55172, PET4002	
GI-3397	2N2925, 2N3227, 2N3242A, 2N3392, 2N3395-YEL, 2N3509, 2N3565, 2N3794, 2N4124, 2N4256, 2N4265, 2N4286, 2N4954, 2N5172, 2N5371, 2SC367, 40397, 8C108, 8C108A, 8C172A, 8CYS8A, 8CYS8B, GI-3794, MPS3392, MPS3393, MPS3706, MPS5172, TN80	
GI-3398	2N3391, 2N3391A, 2N3395-WHT, 2N3415, 2N3565, 2N4286, 2N6002, 2N6008, 2SC368, 2SC369, 8C108B, 8C109C, 8C168, 8C172B, 8CYS8B, 8CYS8C, GI-3415, MPS3392, MPS3393, MPS3706, MPS5172, TN80	
GI-3402	2N3227, 2N3241A, 2N3242A, 2N3414, 2N3509, 2N4495A, 2N5371, 2N5451, 2N6000, 8S583, GI-3414, GI-3706, MPS3706, PET3706, SE4001, TN40, TN80	
GI-3403	2N3615, 2N4384, 2N6002, 2N6008, GI-3415, SE4002, SE4010	
GI-3404	2N760A, 2N760B, 2N909, 2N930B, 2N956, 2N2222, 2N2222A, 2N2350, 2N2350A, 2N2522, 2N2524, 2N2540, 2N2645, 2N3116, 2N3416, 2N3704, 2N4401, 2N4437, 2N4952, 2N4970, 2N5107, 2N5369, 2N5449, 2N5582, 2N5816, 2N5822, 2N6004, 2N6010, 2N6014, 40458, 8S585, D33D30, EN956, EN2222, GI-3416, GI-3643, GI-3704, MPS3704, PET3704, SE6022	
GI-3405	2N3417, 2N4953, 2N5370, 2N6006, 2N6012, 2N6016, GI-3417, PET8002, PET8004	
GI-3414	2N3227, 2N3241A, 2N3242A, 2N3414, 2N3509, 2N4954, 2N5371, 2N5451, 2N6000, 8S583, GI-3706, MPS3706, PET3706, TN60, TN80	
GI-3415	2N3615, 2N4384, 2N6002, 2N6008	
GI-3416	2N760A, 2N760B, 2N909, 2N930B, 2N956, 2N2222, 2N2222A, 2N2350, 2N2350A, 2N2522, 2N2524, 2N2540, 2N2645, 2N3116, 2N3416, 2N3704, 2N4401, 2N4437, 2N5369, 2N5449, 2N5582, 2N5816, 2N5822, 2N6004, 2N6010, 2N6014, 40458, 8S585, D33D30, EN956, EN2222, MPS3706, PET3706, TN60, TN80	
GI-3417	2N3417, 2N4953, 2N5370, 2N6006, 2N6012, 2N6016, PET8002, PET8004	
GI-3566	2N3417, 2N4953, 2N5370, 2N6006, 2N6012, 2N6016, PET8002, PET8004, TIS97	
GI-3605	2N218, 2N2319, 2N2656, 2N3011, 2N3605, 2N3606, 2N3607, 2N4421, 2N5369, 2N5449, 2N5582, 2N5816, 2N5822, 2N6004, 2N6010, 2N6014, 40458, 8S585, D33D30, EN956, EN2222, MPS3706, PET3706, TN60, TN80	
GI-3606	2N318, 2N2319, 2N2656, 2N3011, 2N3605, 2N3606, 2N3607, 2N4421, 2N5369, 2N5449, 2N5582, 2N5816, 2N5822, 2N6004, 2N6010, 2N6014, 40458, 8S585, D33D30, EN956, EN2222, MPS3706, PET3706, TN60, TN80	
GI-3607	2N318, 2N2319, 2N2656, 2N3011, 2N3605, 2N3606, 2N3607, 2N4421, 2N5369, 2N5449, 2N5582, 2N5816, 2N5822, 2N6004, 2N6010, 2N6014, 40458, 8S585, D33D30, EN956, EN2222, MPS3706, PET3706, TN60, TN80	
GI-3638	2N727, 2N869, 2N869A, 2N2411, 2N4274, 2N5354, 2N5365, FT1746, GET3638, GET3638A, MPS6516, MPS5A70-RED, *TR-19, *ECG159	
GI-3638A	2N727, 2N869, 2N869A, 2N2411, 2N4274, 2N5354, 2N5365, FT1746, GET3638, GET3638A, MPS6516, MPS5A70-RED, *TR-19, *ECG159	
GI-3641	2N915, 2N2221, 2N2221A, 2N2539, 2N2845, 2N3115, 2N3301, 2N4014, 2N4954, 2N4962, 2N4963, 2N5368, 2N5581, 8S584, *ECG123A	
GI-3642	2N915, 2N2221, 2N2221A, 2N2539, 2N2845, 2N3115, 2N3301, 2N4014, 2N4954, 2N4962, 2N4963, 2N5368, 2N5581, 8S584, GI-3641, MP5630, MP5631	
GI-3643	2N2222, 2N2222A, 2N2540, 2N3116, 2N3302, 2N4952, 2N5107, 2N5369, 2N5376, 2N5377, 2N5582, 8S585, *ECG123A	
GI-3644	2N2907, 2N2907A, 2N3486, 2N3486A, 2N3504, 2N3505, 2N6005, *ECG159	
GI-3702	2N2838, 2N2907, 2N2907A, 2N3251, 2N3251A, 2N3486, 2N3486A, 2N3504, 2N3505, 2N3672, 2N3673, 2N3702, 2N3906, 2N4143, 2N4228, 2N5373, 2N5375, 2N5379, 2N5447, 2N5817, 2N5819, 2N6005, 2S4603, A177, 8S713, D29E05, D29E06, GET2907, GI-3644, MM3906, MPS3702, T600, *ECG159	
GI-3703	2N2837, 2N2906, 2N2906A, 2N3250, 2N3250A, 2N3485, 2N3485A, 2N3703, 2N4142, 2N4228, 2N5372, 2N5448, 2N5815, 2N5821, 8S716, D29E04, D29E09, GET2904, GET2905, MPS3703, *ECG159	
GI-3704	2N2222, 2N2222A, 2N2540, 2N3302, 2N5449, 2N5582, 2N5818, 2N6010, 2N6014, PET3704, *ECG123A	
GI-3705	2N915, 2N2539, 2N2897, 2N2900, 2N4013, 2N4962, 2N5450, 2N5814, 2N5820, D33D29, PET3705, TN54, *ECG123A	
GI-3706	2N2222, 2N2540, 2N3242A, 2N3302, 2N3706, 2N5451, 2N5818, PET3706, TN60, *ECG123A	
GI-3707	2N3242A, 2N4265, 2N4286, 2N4287, GI-3708, GI-3711, MPS3707, MPS3708, *ECG123A	
GI-3708	2N4286, 2N4287, GI-3711, MPS3708, MPS3711, PET4002, *ECG123A, *GE-17	
GI-3709	2N760, 2N432A, 2N2501, 2N4138, MPS3709, PET4001, *GE-17, *TR-24, *ECG123A	
GI-3710	2N3242A, 2N4265, GI-3707, GI-3708, MPS3707, MPS3708, MPS3710, *ECG123A, *GE-17	
GI-3711	MPS3711, PET4002, PET4003, *ECG123A	
GI-3721	2N2926-GRN, 2N2926-YEL, 2N3391, 2N3391A, 2N3392, 2N3395-WHT, 2N3395-YEL, 2N3415, 2N3565, 2N4286, 2N6002, 2N6008, 2SC368, 2SC369, 91T6, 92T6, 40397, 40399, A1585, A1598, 8C108, 8C108B, 8C109C, 8C168, 8C170C, 8C172B, 8CYS8A, 8CYS8B, 8CYS8C, GI-3415, GI-3900, GI-3900A, GI-3900B, MPS3392, MPS3395, MPS5172, PBC108B, PBC109B, PET4002	
GI-3793	2N708, 2N708A, 2N742, 2N744, 2N914, 2N957, 2N2221, 2N2481, 2N2521, 2N2710, 2N2845, 2N3115, 2N3210, 2N3261, 2N3301, 2N3510, 2N3511, 2N3647, 2N3648, 2N3705, 2N3793, 8S582, GI-3641, GI-3642, *ECG161, *TR-25	
GI-3794	2N3706, 2N3794, 2N4953, 2N5370, 2N5376, 2N6006, 2N6012	
GI-3900	2N3390, 2N3391, 2N3391A, 2N3395-WHT, 2N6002, 2N6008, 91T6, A158C, A159C, 8C109, 8C169, 8C172C, 8CYS8D, GI-3900A, PBC108C, PBC109C, PET4003, SE4002, SE4010	
GI-3900A	2N3390, 2N3391, 2N3391A, 2N3395-WHT, 2N6002, 2N6008, 91T6, A158C, A159C, 8C109, 8C169, 8C172C, 8CYS8D, GI-3900, PBC108C, PBC109C, PET4003, SE4002, SE4010	
GT34HV	SEE 2N1408	
GT40	*ECG160, *HEP3, *GE-9, *HF35, *DS-56	
GT41	*DS25, *HF35, *SK3005, *GE-9, *HEP253, *ECG102A	
GT42	*ECG102A, *HEP254, *GE-9, *SK3005, *HF35, *DS25	
GT43	*DS25, *HF35, *SK3005, *GE-9, *HEP635, *ECG126	
GT44	*ECG102A, *HEP253, *GE-9, *HF35, *DS-56	
GT45	*HF35, *GE-9, *HEP253, *ECG102A	
GT46	*ECG126, *HEP635, *GE-9, *HF35, *DS-56	
GT47	*DS-56, *GE-9, *HEP635, *ECG126	
GT81	2N59, 2N59A, 2N60, 2N60A, 2N109, 2N117, 2N270, 2N369, 2N396A, 4N397, 2N415, 2N415A, 2N416, 2N416A, 2N459, 2N459A, 2N609, 2N654, 2N654A, 2N1008A, 2N1125, 2N1175, 2N1175A, 2N1192, 2N1274, 2N1303, 2N1307, 2N1349, 2N1352, 2N1354, 2N1355, 2N1356, 2N1357, 2N1370, 2N1374, 2N1376, 2N1381, 2N1382, 2N1382A, 2N1383, 2N1415, 2N1507, 2S8186, 2S8187, 2S8186, 2S8201, 2S8265, 2S8291, 2S8292, 2S8403, 40269, NKT226, SF.T223, *ECG102A, *HEP254, *GE-2, *TR-05, *DS26, *A130M, *SK3004, *A41	
GT1200	SEE 2N1310	
GT1658	SEE 2N1605	
H5	SEE 2N538A	
M6	SEE 2N539A	
H7	SEE 2N540A	
H12	SEE 2N1157	
M12A	SEE 2N1157A	
HA7520	SHA7520, *GE-21	
HA7521	SHA7521	
HA7522	2N1238, SHA7522, *GE-21	
HA7523	2N1240, SHA7523, *GE-21	
HA7524	2N1242, SHA7524	
HA7525	SHA7525	
HA7526	2N1239, SHA7526, *GE-21	

TRANSISTOR SUBSTITUTES

HA7527-HEP720

To Replace	Substitute This Type
HA7527	2N1241, SHA7527, *GE-21
HA7528	2N1243, SHA7528
HA7529	2N1244, SHA7525, SHA7529
HA7530	2N1439, SHA7530, *GE-21, *TR-28, *SK3025, *ECG129
HA7531	2N1440, SHA7531, *ECG129, *SK3025, *TR-28, *GE-21
HA7532	2N2944, 2N2944A, *GE-21
HA7533	2N1230, 2N1441, SHA7533, *GE-21, *TR-28
HA7534	2N1232, SHA7534, *TR-28
HA7535	SHA7535
HA7536	2N1229, 2N3217, 2N3218, 2N3978, 2N4007, SHA7536, T1135, *TR-19, *GE-21
HA7537	2N1231, 2N1442, 2N1443, 2N2946, 2N3219, 2N3979, SHA7537, *GE-21, *TR-28
HA7538	2N1233, 2N4982, SHA7538, *TR-28
HA7539	2N1234, SHA7535, SHA7539
HA7597	2N1242, SHA7524, SHA7597, *TR-28, *GE-21
HA7598	2N1241, SHA7527, SHA7598, *GE-21, *TR-28
HA7599	2N1241, SHA7599, *TR-19, *GE-21
HEP1	REFER TO SECTION 2
HEP2	REFER TO SECTION 2
HEP3	REFER TO SECTION 2
HEP50	REFER TO SECTION 2
HEP51	REFER TO SECTION 2
HEP52	REFER TO SECTION 2
HEP53	REFER TO SECTION 2
HEP54	REFER TO SECTION 2
HEP55	REFER TO SECTION 2
HEP56	REFER TO SECTION 2
HEP57	REFER TO SECTION 2
HEP75	REFER TO SECTION 2
HEP76	REFER TO SECTION 2
HEP200	REFER TO SECTION 2
HEP230	REFER TO SECTION 2
HEP231	REFER TO SECTION 2
HEP232	REFER TO SECTION 2
HEP233	REFER TO SECTION 2
HEP234	REFER TO SECTION 2
HEP235	REFER TO SECTION 2
HEP236	REFER TO SECTION 2
HEP237	REFER TO SECTION 2
HEP238	REFER TO SECTION 2
HEP239	REFER TO SECTION 2
HEP240	REFER TO SECTION 2
HEP241	REFER TO SECTION 2
HEP242	REFER TO SECTION 2
HEP243	REFER TO SECTION 2
HEP244	REFER TO SECTION 2
HEP245	REFER TO SECTION 2
HEP246	REFER TO SECTION 2
HEP247	REFER TO SECTION 2
HEP248	REFER TO SECTION 2
HEP250	REFER TO SECTION 2
HEP251	REFER TO SECTION 2
HEP252	REFER TO SECTION 2
HEP253	REFER TO SECTION 2
HEP254	REFER TO SECTION 2
HEP623	REFER TO SECTION 2
HEP624	REFER TO SECTION 2
HEP625	REFER TO SECTION 2
HEP626	REFER TO SECTION 2
HEP627	REFER TO SECTION 2
HEP628	REFER TO SECTION 2
HEP629	REFER TO SECTION 2
HEP630	REFER TO SECTION 2
HEP631	REFER TO SECTION 2
HEP632	REFER TO SECTION 2
HEP633	REFER TO SECTION 2
HEP634	REFER TO SECTION 2
HEP635	REFER TO SECTION 2
HEP636	REFER TO SECTION 2
HEP637	REFER TO SECTION 2
HEP638	REFER TO SECTION 2
HEP639	REFER TO SECTION 2
HEP640	REFER TO SECTION 2
HEP641	REFER TO SECTION 2
HEP642	REFER TO SECTION 2
HEP643	REFER TO SECTION 2
HEP644	REFER TO SECTION 2
HEP700	REFER TO SECTION 2
HEP701	REFER TO SECTION 2
HEP702	REFER TO SECTION 2
HEP703	REFER TO SECTION 2
HEP704	REFER TO SECTION 2
HEP705	REFER TO SECTION 2
HEP706	REFER TO SECTION 2
HEP707	REFER TO SECTION 2
HEP708	REFER TO SECTION 2
HEP709	REFER TO SECTION 2
HEP710	REFER TO SECTION 2
HEP712	REFER TO SECTION 2
HEP713	REFER TO SECTION 2
HEP714	REFER TO SECTION 2
HEP715	REFER TO SECTION 2
HEP716	REFER TO SECTION 2
HEP717	REFER TO SECTION 2
HEP718	REFER TO SECTION 2
HEP719	REFER TO SECTION 2
HEP720	REFER TO SECTION 2

Q1 51 To Replace	Substitute This Type
HEP721	REFER TO SECTION 2
HEP722	REFER TO SECTION 2
HEP723	REFER TO SECTION 2
HEP724	REFER TO SECTION 2
HEP725	REFER TO SECTION 2
HEP726	REFER TO SECTION 2
HEP727	REFER TO SECTION 2
HEP728	REFER TO SECTION 2
HEP729	REFER TO SECTION 2
HEP730	REFER TO SECTION 2
HEP731	REFER TO SECTION 2
HEP732	REFER TO SECTION 2
HEP733	REFER TO SECTION 2
HEP734	REFER TO SECTION 2
HEP735	REFER TO SECTION 2
HEP736	REFER TO SECTION 2
HEP737	REFER TO SECTION 2
HEP738	REFER TO SECTION 2
HEP739	REFER TO SECTION 2
HEP740	REFER TO SECTION 2
HEPG6001	REFER TO SECTION 2
HEPS0001	REFER TO SECTION 2
HEPS3001	REFER TO SECTION 2
HEPS3005	REFER TO SECTION 2
HEPS3006	REFER TO SECTION 2
HEPS3007	REFER TO SECTION 2
HEPS3008	REFER TO SECTION 2
HF3H	REFER TO SECTION 2
HF3M	REFER TO SECTION 2
HF6H	REFER TO SECTION 2
HF6M	REFER TO SECTION 2
HF12H	REFER TO SECTION 2
HF12M	REFER TO SECTION 2
HF20H	REFER TO SECTION 2
HF20M	REFER TO SECTION 2
HF35	REFER TO SECTION 2
HF50	REFER TO SECTION 2
HF75	REFER TO SECTION 2
HJ22D	SEE 2SA12
HJ23D	SEE 2SA15
HJ56	SEE 2SA13
HJ57	SEE 2SA16
HJ60	SEE 2SA17
HJ70	SEE 2SA80
HJ71	SEE 2SA81
HJ72	SEE 2SA82
HJ73	SEE 2SA83
HJ74	SEE 2SA84
HJ75	SEE 2SA85
HN100	REFER TO SECTION 2
HN150	REFER TO SECTION 2
HD300	REFER TO SECTION 2
HST1050	
HST1051	
HST1052	
HST1053	
HST1054	
HST1055	
HST1056	
HST1057	
HST1058	
HST1059	
HST1060	
HST1061	
HST1062	
HST1063	
HST1064	
HST1150	
HST1151	
HST1152	
HST1153	
HST1154	
HST1155	
HST1156	
HST1157	
HST1158	
HST1159	
HST1160	
HST1161	
HST1162	
HST1163	
HST1164	
HST1250	
HST1251	
HST1252	
HST1253	
HST1254	
HST1255	
HST1256	
HST1257	
HST1258	
HST1259	
HST1260	
HST1261	
HST1262	
HST1263	

TRANSISTOR SUBSTITUTES

HST1264—HST5952

Q1 To Replace	Substitute This Type
HST1264	
HST1808	
HST1809	
HST1810	
HST1860	
HST1861	
HST1862	
HST1908	
HST1909	
HST1910	
HST1960	
HST1961	
HST1962	
HST2008	
HST2009	
HST2010	
HST2101	
HST2110	
HST2111	
HST2112	
HST2150	
HST2151	
HST2152	
HST4451	HST4452, HST5007, HST5008, HST5507, HST5508
HST4452	HST5008, HST5508
HST4453	HST4454, HST5002, HST5003, HST5502, HST5503
HST4454	HST5003, HST5503
HST4455	HST4456, HST5012, HST5013, HST5512, HST5513
HST4456	HST5013, HST5513
HST4483	HST4451, HST5006, HST5007, HST5506, HST5507
HST4551	HST4552
HST4552	
HST4553	HST4554
HST4554	
HST4555	HST4556
HST4556	
HST4583	HST4551
HST5001	HST5002
HST5002	HST5003
HST5003	
HST5004	HST5005, HST5051
HST5005	HST5051, HST5052, HST5053
HST5006	HST5007
HST5007	HST5008
HST5008	
HST5009	HST5010, HST5054
HST5010	HST5054, HST5055, HST5056
HST5011	HST5012
HST5012	HST5013
HST5013	
HST5014	HST5015
HST5015	
HST5051	HST5005, HST5052, HST5053
HST5052	HST5053
HST5053	
HST5054	HST5010, HST5055, HST5056
HST5055	HST5056
HST5056	
HST5501	HST5001, HST5002, HST5502
HST5502	HST5002, HST5003, HST5503
HST5503	HST5003
HST5504	HST5004, HST5005, HST5051, HST5505, HST5551
HST5505	HST5005, HST5051, HST5052, HST5053, HST5551, HST5552, HST5553
HST5506	HST5006, HST5007, HST5507
HST5507	HST5007, HST5008, HST5508
HST5508	HST5008
HST5509	HST5009, HST5010, HST5054, HST5510, HST5554
HST5510	HST5010, HST5054, HST5055, HST5056, HST5554, HST5555
HST5511	HST5011, HST5012, HST5512
HST5512	HST5012, HST5013, HST5513
HST5513	HST5013
HST5514	HST5014, HST5015, HST5515
HST5515	HST5015
HST5551	HST5005, HST5051, HST5052, HST5053, HST5505, HST5552, HST5553
HST5552	HST5052, HST5053, HST5553
HST5553	HST5053
HST5554	HST5010, HST5054, HST5055, HST5056, HST5510, HST5555, HST5556
HST5555	HST5055, HST5056, HST5556
HST5556	HST5056
HST5901	HST5902
HST5902	HST5903
HST5903	
HST5904	HST5905, HST5951
HST5905	HST5951, HST5952, HST5953
HST5906	HST5907
HST5907	HST5908
HST5908	
HST5909	HST5910, HST5954
HST5910	HST5954, HST5955, HST5956
HST5911	HST5912
HST5912	HST5913
HST5913	
HST5914	HST5915
HST5915	
HST5951	HST5905, HST5952, HST5953
HST5952	HST5953

Q1 To Replace	Substitute This Type
HST5953	
HST5954	HST5910, HST5955, HST5956
HST5955	HST5956
HST5956	
HST6001	
HST6011	HST6012
HST6012	
HST6013	HST6014
HST6014	2N4115
HST6015	HST6016
HST6016	2N4116
HST6031	HST6011
HST6308	HST6309, HST6408
HST6309	HST6310, HST6409, HST6410
HST6310	HST6409, HST6410
HST6311	HST6312, HST6411, HST6412
HST6312	HST6313, HST6412, HST6413
HST6313	2N4115, HST6413
HST6314	HST6315, HST6414, HST6415
HST6315	HST6316, HST6415, HST6416
HST6316	2N4116, HST6416
HST6408	HST6308, HST6309
HST6409	HST6310, HST6410
HST6410	HST6310, HST6409
HST6411	HST6311, HST6312, HST6412
HST6412	HST6312, HST6313, HST6413
HST6413	2N4115, HST6313
HST6414	HST6314, HST6315, HST6415
HST6415	HST6315, HST6316, HST6416
HST6416	2N4116, HST6316
HST6901	HST6902
HST6902	HST6903, HST6904
HST6903	HST6904
HST6904	
HST6905	HST6906
HST6906	HST6907, HST6908
HST6907	HST6908
HST6908	
HST7011	HST7012, HST9901, HST9902
HST7012	HST7013, HST9902, HST9903
HST7013	HST9903, HST9904
HST7014	HST7015
HST7015	HST7016
HST7016	HST7140
HST7017	HST7018
HST7018	HST7019
HST7019	
HST7140	HST7154
HST7141	HST7156
HST7150	HST7151
HST7151	HST7152, HST7801
HST7152	HST7801, HST7802, HST7803
HST7154	HST7155
HST7155	HST7141, HST7156
HST7156	HST7141
HST7201	HST7202, HST7203
HST7202	HST7203, HST7204
HST7203	HST7202, HST7204, HST7205
HST7204	HST7205
HST7205	HST7204
HST7206	HST7207
HST7207	HST7201, HST7202, HST7208
HST7208	HST7202, HST7203, HST7204, HST7209
HST7209	HST7203, HST7204, HST7205
HST7401	2N2297, 2N2594
HST7402	2N2297, 2N2594
HST7403	
HST7411	
HST7412	
HST7413	
HST7414	2N2297, 2N2594
HST7415	2N2297, 2N2594
HST7416	
HST7417	
HST7418	
HST7419	
HST7601	HST7602
HST7602	HST7603
HST7603	
HST7604	HST7605
HST7605	HST7606
HST7606	
HST7607	HST7608
HST7608	HST7609
HST7609	
HST7610	HST7611
HST7611	HST7612
HST7612	
HST7801	HST7152, HST7802, HST7803
HST7802	HST7803, HST7804
HST7803	HST7802, HST7804, HST7805
HST7804	HST7805
HST7805	HST7804
HST7806	HST7807
HST7807	HST7152, HST7801, HST7802, HST7808
HST7808	HST7802, HST7803, HST7804, HST7809

TRANSISTOR SUBSTITUTES

HST7809-IRTR-60

Q1 To Replace	Substitute This Type
HST7809	HST7803, HST7804, HST7805
HST7901	HST7902, HST7903
HST7902	HST7903, HST7904
HST7903	HST7902, HST7904, HST7905
HST7904	HST7905
HST7905	HST7904
HST7907	HST7901, HST7902, HST7908
HST7908	HST7902, HST7903, HST7904, HST7909
HST7909	HST7903, HST7904, HST7905
HST7910	HST7907
HST8002	HST8003, HST8015, HST8016, HST8301, HST8302
HST8003	HST8016, HST8302
HST8012	HST8013
HST8013	
HST8015	HST8002, HST8003, HST8016, HST8301, HST8302
HST8016	HST8003, HST8302
HST8045	
HST8070	HST8071, HST8303, HST8304
HST8071	HST8304
HST8105	HST8106, HST8115, HST8116
HST8106	HST8116
HST8110	HST8111
HST8111	
HST8112	HST8113
HST8113	
HST8114	
HST8115	HST8105, HST8106, HST8116
HST8116	HST8106
HST8301	HST8002, HST8003, HST8015, HST8016, HST8302
HST8302	HST8003, HST8016
HST8303	HST8070, HST8071, HST8304
HST8304	HST8071
HST8601	HST8602
HST8602	HST8603
HST8603	HST8604
HST8604	
HST8651	HST8652, HST8653
HST8652	HST8653, HST8654
HST8653	HST8654, HST8655
HST8654	HST8653, HST8655
HST8655	HST8654
HST8801	HST8802, HST8803
HST8802	HST8803, HST8804
HST8803	HST8804, HST8805
HST8804	HST8803, HST8805
HST8805	HST8804
HST8920	HST8921
HST8921	HST8922
HST8922	HST8923
HST8923	
HST8951	HST8952, HST8953
HST8952	HST8953, HST8954
HST8953	HST8954, HST8955
HST8954	HST8953, HST8955
HST8955	HST8954
HST9001	HST4483, HST5006, HST5506, HST9002
HST9002	HST4451, HST4452, HST5007, HST5008, HST5507, HST5508, HST9003
HST9003	HST4452, HST5008, HST5508
HST9004	HST5001, HST5501, HST9005, HST9007, HST9008
HST9005	2N2297, HST4453, HST4454, HST5002, HST5003, HST5502, HST5503, HST9006, HST9008, HST9009
HST9006	HST4454, HST5003, HST5503, HST9009
HST9007	HST5001, HST5501, HST9008
HST9008	HST5002, HST5003, HST5502, HST5503, HST9009
HST9009	HST5003, HST5503
HST9010	HST5011, HST5511, HST9011
HST9011	HST4455, HST4456, HST5012, HST5013, HST5512, HST5513, HST9012
HST9012	HST4456, HST5013, HST5513
HST9201	HST9205, HST9206, *GE-14
HST9202	HST9203, HST9207, HST9208
HST9203	HST9204, HST9208, HST9209
HST9204	HST9209
HST9205	HST9201, HST9206, *GE-14
HST9206	HST9202, HST9207, *GE-14
HST9207	HST9202, HST9203, HST9208
HST9208	HST9203, HST9204, HST9209
HST9209	HST9204
HST9210	HST9201, HST9205, *GE-14
HST9801	HST9201, HST9205, HST9206, HST9802
HST9802	HST9202, HST9206, HST9207, HST9803
HST9803	HST9202, HST9203, HST9207, HST9208, HST9804
HST9804	HST9203, HST9204, HST9208, HST9209
HST9901	HST9902
HST9902	HST9903
HST9903	HST9904
HST9904	
IRTR-50	REFER TO SECTION 2
IRTR-51	REFER TO SECTION 2
IRTR-52	REFER TO SECTION 2
IRTR-53	REFER TO SECTION 2
IRTR-54	REFER TO SECTION 2
IRTR-55	REFER TO SECTION 2
IRTR-56	REFER TO SECTION 2
IRTR-57	REFER TO SECTION 2
IRTR-58	REFER TO SECTION 2
IRTR-59	REFER TO SECTION 2
IRTR-60	REFER TO SECTION 2

Q1 Q2	To Replace	Substitute This Type
IRTR-61	REFER TO SECTION 2	
JR5	REFER TO SECTION 2	
JR10	REFER TO SECTION 2	
JR15	REFER TO SECTION 2	
JR30	REFER TO SECTION 2	
JR30X	REFER TO SECTION 2	
JR100	REFER TO SECTION 2	
JR200	REFER TO SECTION 2	
KF2000	KF2002	
KF2001		
KF2002	KF2000	
KF2003		
KL8010	KL8011	
KL8011	KL8010	
KL8012	KL8013	
KL8013	KL8012	
KL8503	KL8504	
KL8504	KL8503	
KL8505	KL8506	
KL8506	KL8505	
KR6003	KR6004	
KR6004		
KR6005	KR6006	
KR6006		
KR6500		
KR6501		
KR6502		
KR6503		
KS6101		
KS6102	KS6101,KS6105,KS6106	
KS6103	KS6101	
KS6104	KS6101,KS6102,KS6103	
KS6105		
KS6106	KS6105	
KS6107		
KS6108	KS6107	
KS6109	KS6111,KS6112	
KS6110		
KS6111	KS6109,KS6112	
KS6112	KS6109,KS6111	
KS6113	KS6115	
KS6114	KS6113,KS6115,KS6116	
KS6115		
KS6116	KS6115	
KS6117	KS6120	
KS6118	KS6121,KS6123,KS6125	
KS6119	KS6118,KS6121,KS6122,KS6124,KS6126	
KS6120		
KS6121	KS6125	
KS6122	KS6121,KS6126	
KS6123	KS6117,KS6120,KS6125	
KS6124	KS6118,KS6119,KS6121,KS6122,KS6126	
KS6125	KS6120	
KS6126	KS6121,KS6122	
KSD1051	2N3235,2N5932,156-084,1723-0405,1723-0410,1723-0605,1723-0610,1743-0610,1743-0630,HST9201,HST9205,HST9206,HST9801,HST9802,KS0105,KS0106	
KSD1052	2N5671,2N5930,2N5933,2N5936,156-104,156-124,1723-1005,1723-1010,1723-1205,1723-1210,1743-1010,1743-1030,1743-1220,8D130,HST9202,HST9203,HST9207,HST9208,HST9803,HST9804,KS01053,KS01057,KS01058,KS03055	
KSD1053	2N5671,2N5930,2N5933,2N5934,2N5936,156-124,156-144,156-164,1723-1005,1723-1010,1723-1205,1723-1210,1723-1405,1723-1410,1743-1010,1743-1030,1743-1220,1743-1430,HST9203,HST9204,HST9208,HST9209,HST9804,KS01054,KS01058	
KSD1054	2N5930,2N5931,2N5934,2N5936,2N5937,156-144,156-164,1723-1205,1723-1210,1723-1405,1723-1410,1723-1605,1723-1610,1743-1220,1743-1410,1743-1430,1743-1620,HST9204,HST9209	
KSD1055	2N3235,2N5932,156-084,1723-0405,1723-0410,1723-0605,1723-0610,1743-0610,1743-0630,HST9201,HST9205,HST9206,HST9801,HST9802,KS01051,KS01056	
KSD1056	2N5929,2N5933,2N5935,156-084,156-104,1723-0805,1723-0810,1723-1005,1723-1010,1743-0820,1743-1010,1743-1030,8D130,HST9202,HST9206,HST9207,HST9802,HST9803,KS01052,KS01057,KS03055	
KSD1057	2N5671,2N5930,2N5933,2N5936,156-104,156-124,1723-1005,1723-1010,1723-1205,1723-1210,1743-1010,1743-1030,1743-1220,8D130,HST9202,HST9203,HST9207,HST9208,HST9803,HST9804,KS01052,KS01053,KS01058,KS03055	
KSD1058	2N5671,2N5930,2N5933,2N5934,2N5936,156-124,156-144,156-164,1723-1005,1723-1010,1723-1205,1723-1210,1723-1405,1723-1410,1723-1410,1743-1010,1743-1030,1743-1220,1743-1430,HST9203,HST9204,HST9208,HST9209,HST9804,KS01053,KS01054	
KSD2101	HST5907,HST5908	
KSD2102	HST5907,HST5908,KS02101	
KSD2103	HST5906,HST5907,KS02101,KS02102	
KSD2021	2N3642,2N4348,156-144,156-164,1723-1205,1723-1210,1723-1405,1723-1410,1723-1605,1723-1610,HST9204,HST9209,KS01054,KS09703,KS09706,KS01173,SDT7610,SDT7611	
KSD2202	2N3642,2N4348,156-124,156-144,156-164,1723-1005,1723-1010,1723-1205,1723-1210,1723-1405,1723-1410,HST9203,HST9204,HST9208,HST9209,HST9804,KS01053,KS01054,KS01058,KS02201,KS09702,KS09703,KS09705,KS09706,KS01173,SDT7610	
KSD2203	156-104,156-124,1723-1005,1723-1010,1723-1205,1723-1210,40636,8D130,HST9202,HST9203,HST9207,HST9208,HST9803,HST9804,KS01052,KS01053,KS01057,KS01058,KS02202,KS03055,KS09701,KS09702,KS09704,KS09705,KS01172,SDT7609	
KSD3055	2N5671,2N5930,2N5933,2N5936,156-104,156-123,156-124,1723-1005,1723-1010,1723-1205,1723-1210,1743-1010,1743-1030,1743-1220,8D130,HST9202,HST9203,HST9207,HST9208,HST9803,HST9804,KS01052,KS01053,KS01057,KS01058	
KSD3771	1582-0510,1582-0608,1582-0615	
KSD3772	1582-1008,1582-1010,1582-1015,1582-1208,1582-1210,1582-1215	
KSD3773	2N3240,1582-1608,1582-1610,1582-1615	
KSD9701	2N3235,2N5671,2N5930,2N5933,2N5936,156-104,156-123,156-124,1723-1005,1723-1010,1723-1205,1723-1210,1743-1010,1743-1030,1743-1220,40636,8D130,HST9202,HST9203,HST9207,HST9208,HST9803,HST9804,KS09702,KS09703,KS09705,KS09706,KS09707,KS09708,KS09709,KS09710,KS09711,KS09712,KS09713,KS09714,KS09715,KS09716,KS09717,KS09718,KS09719,KS09720,KS09721,KS09722,KS09723,KS09724,KS09725,KS09726,KS09727,KS09728,KS09729,KS09730,KS09731,KS09732,KS09733,KS09734,KS09735,KS09736,KS09737,KS09738,KS09739,KS09740,KS09741,KS09742,KS09743,KS09744,KS09745,KS09746,KS09747,KS09748,KS09749,KS09750,KS09751,KS09752,KS09753,KS09754,KS09755,KS09756,KS09757,KS09758,KS09759,KS09760,KS09761,KS09762,KS09763,KS09764,KS09765,KS09766,KS09767,KS09768,KS09769,KS09770,KS09771,KS09772,KS09773,KS09774,KS09775,KS09776,KS09777,KS09778,KS09779,KS09780,KS09781,KS09782,KS09783,KS09784,KS09785,KS09786,KS09787,KS09788,KS09789,KS09790,KS09791,KS09792,KS09793,KS09794,KS09795,KS09796,KS09797,KS09798,KS09799,KS09800,KS09801,KS09802,KS09803,KS09804,KS09805,KS09806,KS09807,KS09808,KS09809,KS09810,KS09811,KS09812,KS09813,KS09814,KS09815,KS09816,KS09817,KS09818,KS09819,KS09820,KS09821,KS09822,KS09823,KS09824,KS09825,KS09826,KS09827,KS09828,KS09829,KS09830,KS09831,KS09832,KS09833,KS09834,KS09835,KS09836,KS09837,KS09838,KS09839,KS09840,KS09841,KS09842,KS09843,KS09844,KS09845,KS09846,KS09847,KS09848,KS09849,KS09850,KS09851,KS09852,KS09853,KS09854,KS09855,KS09856,KS09857,KS09858,KS09859,KS09860,KS09861,KS09862,KS09863,KS09864,KS09865,KS09866,KS09867,KS09868,KS09869,KS09870,KS09871,KS09872,KS09873,KS09874,KS09875,KS09876,KS09877,KS09878,KS09879,KS09880,KS09881,KS09882,KS09883,KS09884,KS09885,KS09886,KS09887,KS09888,KS09889,KS09890,KS09891,KS09892,KS09893,KS09894,KS09895,KS09896,KS09897,KS09898,KS09899,KS09900,KS09901,KS09902,KS09903,KS09904,KS09905,KS09906,KS09907,KS09908,KS09909,KS09910,KS09911,KS09912,KS09913,KS09914,KS09915,KS09916,KS09917,KS09918,KS09919,KS09920,KS09921,KS09922,KS09923,KS09924,KS09925,KS09926,KS09927,KS09928,KS09929,KS09930,KS09931,KS09932,KS09933,KS09934,KS09935,KS09936,KS09937,KS09938,KS09939,KS09940,KS09941,KS09942,KS09943,KS09944,KS09945,KS09946,KS09947,KS09948,KS09949,KS09950,KS09951,KS09952,KS09953,KS09954,KS09955,KS09956,KS09957,KS09958,KS09959,KS09960,KS09961,KS09962,KS09963,KS09964,KS09965,KS09966,KS09967,KS09968,KS09969,KS09970,KS09971,KS09972,KS09973,KS09974,KS09975,KS09976,KS09977,KS09978,KS09979,KS09980,KS09981,KS09982,KS09983,KS09984,KS09985,KS09986,KS09987,KS09988,KS09989,KS09990,KS09991,KS09992,KS09993,KS09994,KS09995,KS09996,KS09997,KS09998,KS09999,KS10000	

TRANSISTOR SUBSTITUTES

KSD9701A—KT218F

To Replace	Substitute This Type
KSD9701A	156-123, 1582-1008, 1582-1010, 1582-1015, 1582-1208, 1582-1210, 1582-1215, KS03772, KS09702A
KSD9702	2N3773, 2N5671, 2N5930, 2N5933, 2N5934, 2N5936, 156-123, 156-124, 156-144, 156-164, 1723-1005, 1723-1010, 1723-1205, 1723-1210, 1723-1215, 1723-1405, 1723-1410, 1743-1010, 1743-1030, 1743-1220, 1743-1410, 1743-1430, HST9203, HST9204, HST9208, HST9209, HST9804, KSD9703, KSD9705, KSD9706
KSD9702A	2N3240, 156-123, 1582-1208, 1582-1210, 1582-1215, 1582-1410, 1582-1415, 1582-1608, 1582-1610, 1582-1615, KS03773, KS09703A
KSD9703	2N3773, 2N5930, 2N5931, 2N5934, 2N5936, 2N5937, 156-144, 156-164, 1723-1205, 1723-1210, 1723-1405, 1723-1430, 1723-1605, 1723-1610, 1743-1220, 1743-1410, 1743-1430, 1743-1620, HST9204, HST9209, KSD9706
KSD9703A	2N3240, 1582-1410, 1582-1415, 1582-1608, 1582-1610, 1582-1615, KS03773
KSD9704	2N3236, 2N5039, 2N5671, 2N5930, 2N5933, 2N5936, 1743-1010, 1743-1030, 1743-1220, 40636, 80130, HST9202, HST9203, HST9207, HST9208, HST9803, HST9804, KSD9705
KSD9705	2N5039, 2N5671, 2N5930, 2N5933, 2N5934, 2N5936, 1743-1010, 1743-1030, 1743-1220, 1743-1410, 1743-1430, HST9203, HST9204, HST9208, HST9209, HST9804, KSD9706
KSD9706	2N5930, 2N5931, 2N5934, 2N5936, 2N5937, 1743-1220, 1743-1410, 1743-1430, 1743-1620, HST9204, HST9209
KSD9707	156-083, 156-084, 156-104, 1582-0808, 1582-0815, 1582-1008, 1582-1010, 1582-1015, 1723-0805, 1723-0810, 1723-1005, 1723-1010, 40636, 80130, HST9202, HST9206, HST9207, HST9802, HST9803, KSD9701, MJ3772
KSP1001	KSP1002
KSP1002	2N5250, KSP1003
KSP1003	2N5250
KSP1051	HST906, HST5556, KSP1052, KSP1053, SDT4901, SDT4902, SDT4903
KSP1052	KSP1053, KSP1054, KSP1055, SDT4902, SDT4903, SDT4904, SDT4905
KSP1053	KSP1052, KSP1054, KSP1055, SDT4902, SDT4903, SDT4904, SDT4905
KSP1054	KSP1053, KSP1055, SDT4903, SDT4904, SDT4905
KSP1055	KSP1054, SDT4904, SDT4905
KSP1071	HST6904, HST7901, HST7902, HST7903, KSP1072, KSP1073, SDT4921, SDT4922, SDT4923, SDT7901, SDT7902, SDT7903
KSP1072	HST7902, HST7903, HST7904, KSP1073, KSP1074, KSP1075, SDT4922, SDT4923, SDT4924, SDT4925, SDT7902, SDT7903, SDT7904
KSP1073	HST7902, HST7903, HST7904, HST7905, KSP1072, KSP1074, KSP1075, SDT4922, SDT4923, SDT4924, SDT4925, SDT7902, SDT7903, SDT7904
KSP1074	HST7903, HST7904, HST7905, KSP1073, KSP1075, SDT4923, SDT4924, SDT4925, SDT7903, SDT7904, SDT7905
KSP1075	HST7904, HST7905, KSP1074, SDT4924, SDT4925, SDT7904, SDT7905
KSP1091	HST7201, HST7202, HST7203, KSP1092, KSP1093, KSP1141, KSP1142, KSP1143, SDT7201, SDT7202, SDT7203, SDT7612
KSP1092	HST7202, HST7203, HST7204, KSP1093, KSP1094, KSP1095, KSP1142, KSP1143, KSP1144, KSP1145, SDT7202, SDT7203, SDT7204
KSP1093	HST7202, HST7203, HST7204, HST7205, KSP1092, KSP1094, KSP1095, KSP1142, KSP1143, KSP1144, KSP1145, SDT7202, SDT7203, SDT7204, SDT7205
KSP1094	HST7203, HST7204, HST7205, KSP1093, KSP1095, KSP1143, KSP1144, KSP1145, SDT7203, SDT7204, SDT7205
KSP1095	HST7204, HST7205, KSP1094, KSP1144, KSP1145, SDT7204, SDT7205
KSP1101	2N5218, HST7152, HST7801, HST7802, HST7803, KSP1102, KSP1103, SDT7801, SDT7802, SDT7803
KSP1102	HST7802, HST7803, HST7804, KSP1103, KSP1104, KSP1105, SDT7802, SDT7803, SDT7804
KSP1103	HST7802, HST7803, HST7804, HST7805, KSP1102, KSP1104, KSP1105, SDT7802, SDT7803, SDT7804, SDT7805
KSP1104	HST7803, HST7804, HST7805, KSP1103, KSP1105, SDT7803, SDT7804, SDT7805
KSP1105	HST7804, HST7805, KSP1104, SDT7804, SDT7805
KSP1141	HST7201, HST7202, HST7203, KSP1143, SDT7201, SDT7202, SDT7203, SDT7612
KSP1142	HST7202, HST7203, HST7204, KSP1143, KSP1144, KSP1145, SDT7202, SDT7203, SDT7204
KSP1143	HST7202, HST7203, HST7204, HST7205, KSP1142, KSP1144, KSP1145, SDT7202, SDT7203, SDT7204, SDT7205
KSP1144	HST7203, HST7204, HST7205, KSP1143, KSP1145, SDT7203, SDT7204, SDT7205
KSP1145	HST7204, HST7205, KSP1144, SDT7204, SDT7205
KSP1151	HST9901, HST9902
KSP1152	HST9903, HST9904
KSP1153	HST7150, HST7151
KSP1154	
KSP1155	HST7140
KSP1156	2N5329, HST7154, HST7155
KSP1171	HST9201, HST9205, HST9206, HST9801, HST9802, SDT7607, SDT7608
KSP1172	HST9202, HST9203, HST9210, HST9208, HST9803, HST9804, SDT7609
KSP1173	HST9204, HST9209, SDT7610, SDT7611
KSP1174	SDT7601, SDT7602
KSP1175	2N4070, SDT7603
KSP1176	SDT7604, SDT7605
KSP1201	HST8801, HST8802, HST8803, KSP1202, KSP1203, SDT8754, SDT8801, SDT8802, SDT8803
KSP1202	HST8802, HST8803, HST8804, KSP1203, KSP1204, SDT8802, SDT8803, SDT8804
KSP1203	HST8803, HST8804, HST8805, KSP1204, KSP1205, SDT8803, SDT8804, SDT8805
KSP1204	HST8803, HST8804, HST8805, KSP1203, KSP1205, SDT8803, SDT8804, SDT8805
KSP1205	HST8804, HST8805, KSP1204, SDT8804, SDT8805
KSP1251	HST8012, SDT8012
KSP1252	2N3622, 2N4003, HST8013, SDT8013, SDT8751, SDT8755
KSP1253	SDT8752, SDT8753, SDT8756, SDT8757
KSP1254	2N3597, 2N3598, HST8002, HST8015, HST8301, SDT8002, SDT8015, SDT8301
KSP1255	2N3599, HST8003, HST8016, HST8302, SDT8003, SDT8016, SDT8302
KSP1256	2N5331
KSP1601	KSP1602, KSP1603
KSP1602	KSP1603, KSP1604
KSP1603	KSP1604, KSP1605
KSP1604	KSP1603, KSP1605
KSP1605	KSP1604
KT218	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N2481, 2N2710, 2N2845, 2N3115, 2N3210, 2N3261, 2N3301, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N4137, 2N4140, 2N5029, 2SC321, B5M82, FT3641, FT3642, GET708, GET914, GET2221, GET2369, GET3013, GET3014, GET3646, GI-3641, GI-3642, MPS2369, MPS6532
KT218F	2N708A, 2N718, 2N731, 2N760, 2N780, 2N784A, 2N916, 2N916A, 2N2221, 2N2315, 2N2369, 2N2369A, 2N2796, 2N2481, 2N2501, 2N2523, 2N2539, 2N2845, 2N3013, 2N3014, 2N3115, 2N3301, 2N3508, 2N3641, 2N3642, 2N3647, 2N3705, 2N3862, 2N3903, 2N3946, 2N3974, 2N3976, 2N4123, 2N4140, 2N4227, 2N4400, 2N4951, 2N4962, 2N5027, 2N5029, 2N5144, 2N5368, 2N5450, 2N5814, 2SC67, 2SC68, 2SC639, 2SC764, B5M82, EN697, FT3641, FT3642, GET2221, GET2369, GI-3641, GI-3642,

To Replace	Substitute This Type
KT218F (CONT)	G1-3705, MM3903, MPS2369, MPS3705, MPS6530, MP56531, PET3705, PET6001, T1592-YEL, TN62
KT600	2N1613, 2N1613A, 2N2017, 2N2108, 2N2270, 2N2848, 2N2868, 2N3015, 2N3299, 2N3326, 2N3724, 2N3724A, 2N3734, 2N3736, 2N4237, 2N4960, 2N5262, 25C97, 25D120, 7A31, MM3725
KT600F	2N1613, 2N1613A, 2N2017, 2N2108, 2N2193, 2N2193A, 2N2193B, 2N2270, 2N2848, 2N2868, 2N3015, 2N3109, 2N3299, 2N3326, 2N3722, 2N3725, 2N3725A, 2N4238, 2N4960, 2N4961, 2N5262, 25C97, 25D120, SE8002
KT600G	2N699A, 2N699B, 2N1613B, 2N1889, 2N1893, 2N1974, 2N2102, 2N2102A, 2N2243, 2N2243A, 2N2443, 2N2891, 2N3036, 2N3107, 2N3723, 2N4000, 2N4001, 2N4239, 2N5148, 25C696, 25D121, 40366, 40367, SE7002
KT600T	2N1613, 2N1613A, 2N2017, 2N2108, 2N2193, 2N2193A, 2N2193B, 2N2270, 2N2848, 2N2868, 2N3015, 2N3109, 2N3299, 2N3326, 2N3722, 2N3725, 2N3725A, 2N4238, 2N4960, 2N4961, 2N5262, 25C97, 25D120, SE8002
L10A	L20A
L10B	L20B
L10C	L20C
L10D	L20D
L20A	L30A
L20B	L30B
L20C	L30C
L20D	L30D
L30A	
L30B	
L30C	
L30D	
LDA400	
LDA401	
LDA402	
LDA403	
LDA404	*ECG128
LDA405	*ECG128
LDA406	*ECG128
LDA407	
LDA410	*TR-25
LDA420	*TR-22
LDA450	*ECG129
LDA451	
LDA452	*TR-19
LDA453	
LDS200	*ECG128
LDS201	*ECG128
LDS205	
LDS206	
LDS208	*TR-25
M5A	2N3445, HST9201, HST9205, M10A
M5B	2N3446, HST9202, HST9203, HST9207, HST9208, M10B
M5C	M10C
M5D	2N5239, 2N5240, M10D
M10A	HST9201, HST9205
M10B	HST9202, HST9203, HST9207, HST9208
M10C	1723-2005
M10D	
M8073B	
M8073C	SF-T307, *TR-05
M9010	*ECG108, *EN10, *SK3019, *GE-17
MA100	2N1187, 2N1925, 2N1926, MA882, SF-T243, *HEP253
MA112	2N396A, 2N4148, 2N414C, 2N654, 2N1313, 2N1372, 2N1382*, 2N1383, 2N1478, 2N1681, SF-T222, *HEP253, *TR-06
MA113	2N397, 2N654*, 2N1008, 2N1316, 2N1317, 2N1354, 2N1355, 2N1356, 2N1357, 2N1374, 2N1376, 2N1381, 2N1382, SF-T223, *TR-06, *HEP254, *SK3025, *GE-1
MA114	2N1379, 2N1999, MA1703, MA1704, *HEP254, *TR-06
MA115	2N397, 2N654, 2N654*, 2N1008, 2N1354, 2N1355, 2N1356, 2N1357, 2N1374, 2N1376, 2N1381, 2N1382, 2N1382*, 2N1383, SF-T223, *TR-06, *HEP253
MA116	2N599, 2N655, 2N655*, 2N1316, 2N1316, 2N1317, *HEP254, *TR-06
MA117	2N397, 2N655, 2N1316, 2N1317, 2N1354, 2N1355, 2N1356, 2N1357, 2N1376, 2N1381, SF-T223, *TR-06, *HEP254
MA200	MA201
MA201	MA200
MA202	MA203
MA203	MA202, *HEP157, *ECG116
MA204	
MA205	MA204
MA206	*ECG102A
MA286	*HEP253, *TR-06, *ECG100
MA287	2N1317, 2N1376, 2N1381, *ECG100, *TR-06, *HEP253
MA288	MA1705, *HEP254, *TR-06, *ECG100
MA881	2N1187, 2N1924, 2N1925, MA100, MA882, SF-T243, *ECG102A, *HEP253
MA882	2N1188, 2N1926, *HEP254, *ECG102A
MA883	*ECG102A, *HEP254
MA884	*HEP254, *ECG102A
MA885	2N1186, *ECG102A, *HEP253
MA886	2N1187, 2N1924, 2N1925, MA100, MA881, MA882, MA887, SF-T243, *HEP253, *ECG102A
MA887	2N1188, 2N1926, MA882, *ECG102A, *HEP254
MA888	2N2171, MA883, *HEP254, *ECG102A
MA889	MA884, *ECG102A, *HEP254
MA909	2N2042, 2N2042A, *ECG102A, *HEP253
MA910	2N2042, 2N2042A, *HEP253, *ECG102A
MA1702	*HEP254, *GE-1, *SK3005, *DS25, *ECG158
MA1703	MA1704, *ECG158, *DS26, *SK3004, *GE-2, *HEP254
MA1704	MA1705, *HEP254, *GE-1, *SK3005, *DS25, *ECG158
MA1705	*ECG126, *DS25, *SK3005, *GE-1, *HEP635
MA1706	2N1999, 2N2001, MA1703, MA1704, MA1707, *HEP254, *GE-2, *SK3004, *DS26, *ECG158
MA1707	MA1704, MA1705, MA1708, *ECG158, *DS25, *SK3005, *GE-1, *HEP254
MA1708	MA1705, *HEP254, *ECG158
-MCS2135	
-MCS2136	
-MCS2137	

TRANSISTOR SUBSTITUTES

MCS2138—MHT8304

To Replace	Substitute This Type
-MCS2138	2N700, 2N3285, 2N3286, *HEP3, *TR-17
-MD420	2N708A, 2N742, 2N2521, 2N2952, 2N3301, 2N3641, 2N3642, 2N3946, 2N3973, 2N3975, 2N4140, 8FY39-1, FT3641, FT3642, GET2221, MM2483, *TR-24, *HEP57, *GE-20, *ECG123A
-ME213	2N708A, 2N742, 2N2521, 2N2952, 2N3301, 2N3641, 2N3642, 2N3946, 2N3973, 2N3975, 2N4140, 8FY39-1, FT3641, FT3642, GET2221, MM2483, *ECG123A, *GE-20, *HEP52, *TR-24
-ME213A	2N2522, 2N3242A, 2N3302, 2N3643, 2N3947, 2N5825, 2N5826, FT3643, GET2222, MM2484, MM3904, *ECG123A, *GE-20, *HEP52
-ME900	2N2522, 2N3242A, 2N3302, 2N3643, 2N3947, 2N5825, 2N5826, FT3643, GET2222, MM2484, MM3904, *HEP52, *GE-20, *ECG123A
-ME900A	2N2522, 2N3242A, 2N3302, 2N3643, 2N3947, 2N5825, 2N5826, FT3643, GET2222, MM2484, MM3904, *HEP52, *GE-20, *ECG123A
-ME901	*ECG123A, *GE-20, *HEP57
-ME901A	*HEP57, *ECG123A
MF3304	*HEP52, *GE-21, *ECG159
-MHT1802	2N2730, *ECG105, *HEP233, *GE-4, *SK3012, *PT501, *DS501, *AA5
-MHT1803	2N2730, 2N2731, *AA5, *DS501, *PT501, *SK3012, *GE-4, *HEP233, *ECG105
-MHT1807	2N2731, 2N2732, MP504, MP504A, MP505, MP505A, *DS-501, *PT501, *GE-4, *HEP233, *ECG105
MHT1808-1810	SEE SOT1808-1810
-MHT1902	2N2733
-MHT1903	2N2733, 2N2734
-MHT1904	2N2734, 2N2735
MHT1908-1910	SEE SOT1908-1910
-MHT2002	2N2736, *ECG101, *HEP641
-MHT2003	2N2736, 2N2737, *HEP641, *ECG101
-MHT2004	2N2737, 2N2738, *ECG101, *HEP641
MHT2008-2010	SEE SOT2008-2010
-MHT2101	
-MHT2110	
-MHT2111	
-MHT2112	
-MHT2150	
-MHT2151	
-MHT2152	
-MHT2205	
-MHT2305	*ECG105, *GE-4, *PT501, *DS-501
-MHT4401	2N656, 2N1613A, 2N2848, 2N2951, 2N3015, 2N3109, 2N3299, 2N3326, 2N4960, 2N4961, Z5C32, Z5C594, SE8002, *ECG128, *SK3024, *TR-25
-MHT4402	2N699A, 2N699B, 2N1613B, 2N2102A, 2N3114, 2N3500, 2N3712, 2N3923, 2N4925, Z5C49, Z5C470-4, Z5C470-5, Z5C590, Z5C686, MM3008, SE7001, SE7002
-MHT4411	2N2194, 2N2194A, 2N2194B, 2N2217, 2N3110, 2N3252, 2N3253, 2N3554, 2N3725, 2N5188, Z5C97, B5K49, *SK3024, *ECG128
-MHT4412	2N2193, 2N2193A, 2N2193B, 2N2218, 2N2270, 2N2537, 2N2848, 2N2866, 2N3109, 2N3725A, 2N4960, 2N4961, Z5C503, 40635, TN53, *ECG128, *SK3024
-MHT4413	2N1420A, 2N1711, 2N1711A, 2N2049, 2N2192, 2N2192A, 2N2192B, 2N2219, 2N2538, 2N3300, B5Y54, *SK3024, *ECG128
-MHT4414	2N3108, 2N3110, 2N3253, 2N3725
-MHT4415	2N1889, 2N2193, 2N2193A, 2N2193B, 2N3107, 2N3109, 2N3725A, 2N4961, 40635, TN53
-MHT4416	2N1711, 2N1711A, 2N1890, 2N2049, B5Y54
-MHT4417	
-MHT4418	2N699A, 2N699B, 2N2243, 2N2243A, 2N3020, 2N3036
-MHT4419	2N1711B, 2N3019, 2N4943
MHT4451-4483	SEE SOT4451-4483
-MHT4501	HST4551, HST4583
-MHT4502	
-MHT4503	HST4555
-MHT4514	HST4551, HST4552
-MHT4515	HST4553, HST4554
-MHT4516	HST4555, HST4556
-MHT4517	
-MHT4518	
-MHT4519	
MHT4551-4583	SEE SOT4551-4583
-MHT4611	
-MHT4612	
-MHT4613	
-MHT4614	
-MHT4615	
-MHT4616	
-MHT4617	
-MHT4618	
-MHT4619	
MHT5001-5015	SEE SOT5001-5015
MHT5051-5056	SEE SOT5051-5056
MHT5501-5515	SEE SOT5501-5515
MHT5551-5556	SEE SOT5551-5556
MHT5901-5915	SEE SOT5901-5915
MHT5951-5956	SEE SOT5951-5956
MHT6001-6031	SEE SOT6001-6031
MHT6308-6316	SEE SOT6308-6316
MHT6408-6416	SEE SOT6408-6416
MHT7011-7019	SEE SOT7011-7019
MHT7201-7209	SEE SOT7201-7209
MHT7401-7419	SEE SOT7401-7419
-MHT7511	
-MHT7512	
-MHT7513	
-MHT7514	
-MHT7515	
-MHT7516	
-MHT7517	
-MHT7518	
-MHT7519	
MHT7601-7612	SEE SOT7601-7612
MHT7801-7809	SEE SOT7801-7809
MHT7901-7910	SEE SOT7901-7910
MHT8002-8071	SEE SOT8002-8071
MHT8301-8304	SEE SOT8301-8304

Q1 Q2 To Replace	Substitute This Type
MHT9001-9012	SEE SDT9001-9012
MJ400	*GE-12,*ECG124,*HEP240
MJ413	MJ423,*HEP707
MJ420	MJ421,*HEP706,*ECG154,*GE-27
MJ421	*GE-27,*ECG154,*HEP706
MJ423	MJ413,*HEP707
MJ431	MJ413
MJ432	
MJ440	
MJ450	
MJ480	*HEP247,*ECG130,*GE-19,*HN100
MJ481	*HN100,*GE-19,*ECG130,*HEP247
MJ490	*HEP248
MJ491	*HEP248
MJ500	MJ501,MJ6700,MJ6701
MJ501	MJ6701
MJ602	
MJ1800	
MJ2249	MJ2250,*HEP241,*GE-23
MJ2250	*GE-23,*HEP241
MJ2251	HST5953,HST6908,*HEP240,*GE-12,*ECG124,*SK3024
MJ2252	*ECG124,*GE-12,*HEP240
MJ2253	2N3741,2N3741A,MJ2254,*HEP702,*GE-26
MJ2254	*HEP702
MJ2267	2N3789,MJ2268,*HEP248
MJ2268	2N3789,2N3790,*HEP248
MJ2840	
MJ2841	2N3236,2N5629,2N5632,SDT9704
MJ2940	2N3789,2N3790
MJ2941	2N3790
MJ3029	
MJ3030	*HEP740
MJ3101	MJ2249,*HEP241,*GE-23
MJ3201	HST5953,HST6908,*GE-12,*HEP240
MJ3202	*HEP240,*GE-12
MJ3701	2N3740,2N3740A,2N4899,MJ2253,*GE-26,*HEP702
MJ3771	2N5302,2N5685
MJ3772	10B72
MJ4502	
MJ6700	MJ500,MJ501,MJ6701
MJ6701	MJ501
MJ7000	
MJ7200	MJ7201
MJ7201	
MJ8100	MJ8101
MJ8101	MJ8100
MJ9000	
MJE105	MJE2901
MJE205	
MJE340	2N5655,2N5656,2N5657,*HEP244,*GE-27,*SK3021
MJE341	
MJE344	
MJE370	2N4918,MJE371,*GE-29,*SK3025,*HEP246,*ECG153
MJE371	*ECG153,*HEP246,*GE-29
MJE520	2N4921,*HEP245,*GE-28,*ECG152,*SK3041
MJE521	*SK3041,*ECG152,*GE-28,*HEP245
MJE2801	
MJE2901	
MJE2955	
MJE3055	
MM380	
MM709	*TR-21,*HEP56,*ECG108
MM1139	*ECG160,*HEP3
MM1500	
MM1501	
MM1549	2N5635,2N5636,2N5918,3TX632,MM1550
MM1550	2N5636,2N5919
MM1551	2N5637
MM1557	2N5641,2N5918
MM1558	2N5642
MM1559	2N5643,MSA8503
MM1601	SEE 2N5589
MM1602	SEE 2N5590
MM1603	2N5591,2N5705,MSA8506,*HEP3007
MM1619	2N5690
MM1620	
MM1748	2N709,2N709A,2N2475,2N2784
MM1803	*ECG108,*TR-22,*EN10,*GE-17
MM1812	
MM1941	2N744A,2N2369,2N2369A,2N2710,2N3511,2N3648,2N4137,2N5029,MPS2369,*SN80,*GE-20,*HEP56,*ECG108
-MM1943	2N744A,2N2369,2N2369A,2N2710,2N3511,2N3648,2N4137,2N5029,MPS2369,*ECG128
MM2258	
MM2259	MM2260
MM2260	
-MM2264	
MM2483	
MM2484	
MM2894	2N869A,2N3546,2N3576,2N4209,2N5056,2N5057,*TR-19,*ECG160,*SP70,*GE-21
MM3000	*ECG154,*HEP713
MM3001	MM3002
MM3002	MM3003,*HEP712,*ECG154
MM3003	
MM3008	2N16138,2N2102,2N2102A
MM3009	
MM3724	MM3725

TRANSISTOR SUBSTITUTES

MM3725—MP525-5

Q1 To Replace	Substitute This Type
MM3725	
MM3726	*ECG159,*GE-21,*SK3025
MM3903	2N4962,2N4963
MM3904	2N2222A,2N5582
MM3905	2N2906,2N2906A,2N3250,2N3250A,2N3485,2N3485A,2N3672,2N3673,2N5447,2N5448,8S472, GET2904,GET2905,*ECG159,*HEP52
MM3906	2N3251,2N3251A,2N5447,2N6005,*HEP52,*ECG159
MM4000	
MM4001	
MM4002	
MM4003	
MM4018	
MM4019	*SK3025
MM4020	
MM4021	
MM4022	
MM4023	
MM4048	2N3251,2N3251A,2N3798,2N4355,2N5374,2N6007
MM4052	*TR-19
MM4261H	2N4261
MM4429	MM4430
MM4430	
MM4545	
MM4546	
MM4547	2N5357
MM4645	
MM4646	
MM4647	
MM5000	2N3783,2N3784,MM5001,MM5002
MM5001	2N3783,2N3784,MM5000,MM5002
MM5002	2N3783,2N3784,MM5000,MM5001
MM8000	MM8001,MM8002
MM8001	MM8000,MM8002
MM8002	MM8000,MM8001
MM8003	
MM8006	2N3570,2N5053,2N5054,MM8007,MT1061
MM8007	2N3570,2N5053,2N5054,MM8006,MT1061
MM8008	
MM8009	
MM8010	
MM8011	
MM8012	
MMT73	
MMT918	
MMT930	
MMT2222	
MMT2369	
MMT2484	
MMT2857	
MMT2907	
MMT3014	
MMT3546	
MMT3798	
MMT3799	
MMT3903	
MMT3904	
MMT3905	
MMT3906	
MMT3960A	
MMT8015	
MM21	SEE 2N375
MM24	SEE 2N350
MM25	SEE 2N351
MM26	SEE 2N376
MM29	SEE 2N555
MM48	SEE 2N669
MM49	SEE 2N618
MM61A	SEE 2N627
MM62A	SEE 2N628
MM63A	SEE 2N629
MM64A	SEE 2N630
MP110	
MP110B-BLU	
MP110B-GRN	MP110B-GRN
MP110B-RED	MP110B-GRN
MP500	2N2731,MP500A,MP501,MP501A,MP504,MP504A,MP505,MP505A,*ECG105,*GE-4,*SK3012, *DS501,*PT515,*AA5
MP500A	2N2731,MP500,MP501,MP501A,MP504,MP504A,MP505,MP505A,*AA5,*PT515,*DS501,*SK3012, *GE-4,*ECG105
MP501	2N2730,2N2731,MP501A,MP502,MP502A,MP505,MP505A,MP506,MP506A,*ECG105,*GE-4, *SK3012,*DS501,*PT515,*AA5
MP501A	2N2730,2N2731,MP501,MP502,MP502A,MP505,MP505A,MP506,MP506A,*AA5,*PT515,*DS501, *SK3012,*GE-4,*ECG105
MP502	MP502A,MP506,MP506A,*ECG105,*GE-4,*SK3012,*DS501,*PT515,*AA5
MP502A	MP502,MP506,MP506A,*AA5,*PT515,*DS501,*SK3012,*GE-4,*ECG105
MP504	2N2731,MP504A,MP505,MP505A,*ECG105,*GE-4,*SK3012,*DS501,*PT515,*AA5
MP504A	2N2731,MP504,MP505,MP505A,*AA5,*PT515,*DS501,*SK3012,*GE-4,*ECG105
MP505	2N2730,2N2731,MP505A,MP506,MP506A,*ECG105,*GE-4,*SK3012,*DS501,*PT515,*AA5
MP505A	2N2730,2N2731,MP505,MP506,MP506A,*AA5,*PT515,*DS501,*SK3012,*GE-4,*ECG105
MP506	MP506A,*ECG105,*GE-4,*SK3012,*DS501,*PT515,*AA5
MP506A	MP506,*AA5,*PT515,*DS501,*SK3012,*GE-4,*ECG105
MP525-1	2N3713
MP525-2	2N3713
MP525-3	2N3713,2N3715
MP525-4	2N3715
MP525-5	2N3715

Q1 To Replace	Substitute This Type
MP525-6	
MP600	MP601, MP602, MP603, *HEPG6001, *ECG116
MP601	MP600, MP602, MP603, *HEPG6001
MP602	MP603, *HEPG6001
MP603	MP602, *HEPG6001
MP1529	MP1530, MP3611, MP3612
MP1529A	MP1530A
MP1530	MP1531, MP3612, MP3615
MP1530A	MP1531A
MP1531	MP1532, MP3615, MP3616
MP1531A	MP1532A
MP1532	MP1533, MP3616
MP1532A	
MP1533	
MP1534	MP1535
MP1534A	MP1535A
MP1535	MP1536
MP1535A	MP1536A
MP1536	MP1537
MP1536A	MP1537A
MP1537	MP1538
MP1537A	
MP1538	
MP1539	MP1540A, MP1544A, MP1545A, MP3613, MP3614
MP1540A	MP1541A, MP1545A, MP1546A, MP3614, MP3617
MP1541A	MP1542A, MP1546A, MP1547A, MP3617, MP3618
MP1542A	MP1547A, MP3618
MP1543	MP1548
MP1544A	MP1545A
MP1545A	MP1546A
MP1546A	MP1547A
MP1547A	
MP1548	
MP1549	MP1549A, MP1550, MP1550A
MP1549A	MP1550A
MP1550	MP1550A, MP1551, MP1551A
MP1550A	MP1551A
MP1551	MP1551A, MP1552, MP1552A
MP1551A	MP1552A
MP1552	MP1552A
MP1552A	
MP1553	2N511, 2N511A, 2N512, 2N512A, 2N513, 2N513A, 2N514, 2N514A, CRT1544, MP1553A, MP1554, MP1554A, MP1557, MP1557A, MP1558, MP1558A
MP1553A	2N511, 2N511A, 2N512, 2N512A, 2N513, 2N513A, 2N514, 2N514A, CRT1544, MP1553, MP1554, MP1554A, MP1557, MP1557A, MP1558, MP1558A
MP1554	2N511A, 2N511B, 2N512A, 2N512B, 2N513A, 2N513B, 2N514A, 2N514B, CRT1544, CRT1545, MP1554A, MP1555, MP1555A, MP1558, MP1558A, MP1559, MP1559A
MP1554A	2N511A, 2N511B, 2N512A, 2N512B, 2N513A, 2N513B, 2N514A, 2N514B, CRT1544, CRT1545, MP1554, MP1555, MP1555A, MP1558, MP1558A, MP1559, MP1559A
MP1555	2N1167, MP1555A, MP1556, MP1556A, MP1559, MP1559A, MP1560, MP1560A
MP1555A	2N1167, MP1555, MP1556, MP1556A, MP1559, MP1559A, MP1560, MP1560A
MP1556	2N1167, MP1556A, MP1560, MP1560A
MP1556A	2N1167, MP1556, MP1560, MP1560A
MP1557	CRT1544, MP1557A, MP1558, MP1558A
MP1557A	MP1557, MP1558, MP1558A
MP1558	CRT1544, CRT1545, MP1558A, MP1559, MP1559A
MP1558A	MP1558, MP1559, MP1559A
MP1559	MP1559A, MP1560, MP1560A
MP1559A	MP1559, MP1560, MP1560A
MP1560	MP1560A
MP1560A	MP1560
MP1612	2N1166, 2N1166A
MP1612A	MP1612B
MP1612B	
MP1613	TI-3030, TI-3031, *HEP625
MP2000A	2N5692
MP2060	2N3613, 2N3614, 2N4246, 2N4247, MP2061, *HEP230, *ECG121
MP2061	2N3614, 2N4245, 2N4246, MP2062, *ECG121, *HEP232, *GE-16
MP2062	2N4245, MP2063, *HEP232, *ECG121
MP2063	
MP2100A	2N1751, 2N5693, MP2200A
MP2137A	MP2138A, MP2142A, MP2143A, *ECG121
MP2138A	MP2139A, MP2143A, MP2144A, *ECG121
MP2139A	MP2140A, MP2144A, MP2145A, *ECG121
MP2140A	MP2141A, MP2145A, MP2146A
MP2141A	MP2146A
MP2142A	MP2143A, *ECG121
MP2143A	MP2144A, *ECG121
MP2144A	MP2145A, *ECG121
MP2145A	MP2146A
MP2146A	
MP2200A	2N1751, 2N5693, 2N5694, MP2300A, *HEP236
MP2300A	2N5694, 2N5695, MP2400A, *HEP236
MP2400A	2N5695, 2N5696
MP2526	
MP2527	MP2528
MP2528	
MP2832	
MP2833	MP2834
MP2834	
MP3611	MP3612, MP3613, MP3614, *ECG121
MP3612	MP3614, MP3615, MP3617, *ECG121
MP3613	MP3614, *ECG121
MP3614	*ECG121
MP3615	MP3616, MP3617, MP3618, *ECG121
MP3616	MP3618

TRANSISTOR SUBSTITUTES

MP3617—MP53706

To Replace	Substitute This Type
MP3617	MP3618,*ECG121
MP3618	
MP3730	*ECG127,*HEP234
MP3731	*HEP235,*ECG127,*GE-25
MP5435	MP5436
MP5436	MP5437
MP5437	
MP5438	MP5439
MP5439	MP5440
MP5440	
MP5692	
MP5693	MP5435,MP5436,MP5694
MP5694	MP5436,MP5695
MP5695	MP5436,MP5437,MP5696
MP5696	MP5437
MP5006	2N744A,2N369,2N2369A,2N210,2N30C9,2N3013,2N3014,2N3210,2N3510,2N3511,2N3647,2N3648,2N4137,2N5029,25C67,25C427,25C601,25C601N,25C689,GET2369,GET3013,GET3014,GET3646,MP52369
MPN350	M.P. PN350
MP5404	2N3040,2N3702,2N3905,2N3906,2N4126,2N5226,2N5355,2N5366,2N5375,2N5447,2N6001,BC192,BSW73,GI-3638A,GI-3702,MM3906,MP53638A,MP53702,MP56534,MP56562,TQ60,TQ62,*ECG159,*HEP739
MP5404A	2N722,2N239A,2N2906,2N2906A,2N3040,2N3073,2N4122,2N3135,2N3250,2N3250A,2N3485,2N3485A,2N3672,2N3673,2N3703,2N3905,2N4142,2N4228,2N4402,2N4403,2N5365,2N5372,2N5448,BSW72,GET2904A,GET2905,GI-3703,MM3905,MP53703,MP56533,MP56534,MP5A55,TQ62,*HEP739,*ECG159
MPS706	2N706,2N706A,2N706B,2N706C,2N743A,2N783,2N784,2N834,2N834A,2N835,2N2205,2N2616,2N2729,2N354A,KT118,MM1941,MPH5006,MP5706A,MP5834,MP56507,MP56511,MP56540,MP56542,MP56543,MP56548,MP5H20,MP5H32,MP5H37,MT1038,MT1038A,MT1039,MT1060,*ECG108,*HEP727,*TR-22,*GE-17,*DS-81,*SK3018,*EN10
MPS706A	2N706A,2N706B,2N706C,2N743A,2N783,2N784,2N834,2N834A,MP5H37,*TR-22,*HEP727,*ECG108
MPS834	2N708,2N743A,2N744A,2N834,2N834A,2N914,2N2710,2N3210,2N3261,2N3510,2N3605A,2N3606A,2N3648,25C321,40405,GET708,GET914,GET3013,GET3014,GET3646,MP56532,*MP5H37,*SN80,*GE-20
MPS918	2N743A,2N834A,MM1941,MP56507,MP56542,MP56543,MP56548,MT1038,MT1038A,MT1039,*GE-17,*EN10,*ECG107,*HEP720
MPS2369	2N2369
MPS2711	2N744,2N2331,2N2432,2N2569,2N2570,2N4138,2N4264,40231,40234,MP52926-ORG,PT720,*ECG123A,*TR-21,*HEP722
MPS2712	2N3241A,2N3414,2N3721,2N4124,2N4265,2N5224,2N6000,40232,40233,40398,40400,BC108A,BC170B,BC173C,GI-3414,MP52714,MP52926-GRN,MP52926-YEL,MP53393,MP53394,PET4001,TR80,*HEP723,*ECG123A
MPS2713	2N744,2N2318,2N2319,2N2331,2N2656,2N3011,2N4264,25C356,25C595,PT720,*ECG123A,*TR-21
MPS2714	2N3241A,2N4124,2N4265,2N6000,*ECG123A
MPS2923	2N3241,2N2925,2N3227,2N3241A,2N3242A,2N3392,2N3393,2N3395-YEL,2N3414,2N3509,2N4074,2N4124,2N4265,2N4265A,2N4954,2N5172,2N5224,2N5371,2N6000,25C367,25C454,25C458,40398,BC108A,BC172A,BC173C,BCY58A,BSW83,MP53393,MP53706,MP55172,PET4001,SE001,TR80,*HEP724,*ECG123A,*GE-17,*EN10
MPS2924	2N3391,2N3391A,2N3392,2N3395-MHT,2N3395-YEL,2N3415,2N3565,2N3794,2N4286,2N6002,2N6008,25C368,25C369,40397,BC108,BC108B,BC109C,BC168,BC172B,BCY58A,BCY58B,BCY58C,GI-3415,GI-3794,MP53392,MP53395,MP55172,PET4002,*EN10,*GE-17,*ECG123A,*HEP725,2N3391,2N3391A,2N3395-MHT,2N3415,2N6002,2N6008,BC108B,BC109,BC109C,BC169,BCY58D,PT4003,SE002,SE010,*HEP726,*ECG123A,*GE-17,*EN10
MPS2926-BRN	2N743,2N2319,2N2319,2N3011,2N5187,25C428,25C595,BC173B,*HEP722,*TR-21,*ECG123A
MPS2926-GRN	A1578,AL598,BC108,BC172A,BC172B,BCY58A,BCY58B,BCY58C,*ECG123A,*HEP725
MPS2926-ORG	2N5224,BC108A,BC173C,MP52926-YEL
MPS2926-RED	2N744,2N2656,2N4264,PT720,*ECG123A,*HEP723,*TR-21
MPS2926-YEL	2N4124,2N4265,BC108,BC108A,BC172A,BCY58A,MP52926-GRN,*HEP724,*ECG123A
MPS3392	2N3415,2N6002,2N6008,BC108B,BC109C,BC172B,BCY58B,BCY58C,GI-3415,MP53395,PET4002,*ECG123A,*HEP725,*SK3020
MPS3393	2N3242A,2N4124,2N4265,2N4954,2N5371,40397,BC108,BC172A,BCY58A,BCY58B,GI-3415,MP53392,TI592-GRY,TI592-VID,TR80,*HEP724,*ECG123A
MPS3394	2N3227,2N3241A,2N3242A,2N3414,2N3509,2N4074,2N4124,2N4265,2N4954,2N5224,2N5371,2N6000,25C367,40398,BC108A,BC173C,BSW83,GI-3414,2N5055,2N5056,2N5172,MP53706,PET4001,TI592-BRN,TI592-GRN,TI592-VID,TR80,*ECG123A,*HEP723
MPS3395	2N3415,2N6002,2N6008,BC108B,BC109,BC109C,BCY58C,BCY58D,PET4002,PET4003,*HEP725,*ECG123A
MPS3563	2N2369A,2N2615,2N3862,2N5029,25C601N,25C639,25C764,MP5H10,MP5H11,MT1060A,*HEP720,*ECG107,*EN10,*GE-17
MPS3638	2N727,2N869,2N2645,2N2696,2N3829,2N4402,2N4403,BSW72,MP56533,MP56534,TQ62,*HEP716,*TR-19,*GE-17,*EN10,*ECG159
MPS3638A	2N5378,2N5379,2N5813,2N6001,BSW73,D29E02,*ECG159,*EN10,*SK3025,*GE-17,*HEP716,2N2894A,2N3012,2N3304,2N3546,2N4313,2N5055,2N5056,2N5172,2N5292,EN2894A,MP53640,MP5LC7,MP5L08,*GE-21,*SP70,*ECG159
MPS3640	2N2894A,2N3012,2N3546,2N5056,2N5057,2N5292,MP5L08,*ECG159,*SP70,*GE-21
MPS3646	2N708,2N708A,2N744A,2N784A,2N914,2N916,2N916A,2N2481,2N2481A,2N2710,2N2710A,2N3013,2N3014,2N3152,2N3159,2N3604,2N3604A,2N3647,2N3648,2N4228,2N4228A,2N5144,2N5144A,25C67,25C68,25C321,25C468,25C639,25C764,EN708,EN914,EN916,EN3013,EN3014,GET708,GET914,GET2369,GET3013,GET3014,GET3646,MP56530,MP56531,*HEP53,*GE-17,*EN10,*SK3046,*ECG108
MPS3693	2N916,2N916A,2N2847,2N3862,2N3903,2N3946,2N3974,2N3976,2N4227,2N4962,2N4994,2N5027,MM3903,MP53826,MP56565,PET1001,*ECG123A,*SK3018,*HEP738
MPS3694	2N3002,2N4995,A1578,BC107,BC171A,BC171B,BCY59A,BCY59B,MM2484,MP53827,MP56566,2N5002,*HEP738,*SK3018,*ECG123A,*GE-20
MPS3702	2N2336,2N2907,2N2907A,2N3251,2N3251A,2N3486,2N3486A,2N3506,2N3506A,2N3507,2N3672,2N3673,2N3702,2N3905,2N3906,2N4134,2N4228,2N5373,2N5375,2N5447,2N5817,2N6005,25A030,2N717,BSW73,D29E05,GET2906,GET2907,GI-3644,GI-3702,MM3906,TQ60,TQ62,*ECG159,*HEP716
MPS3703	2N2837,2N2906,2N2906A,2N3250,2N3250A,2N3485,2N3485A,2N3703,2N4142,2N4228,2N5372,2N5448,2N5815,2N5812,BSW74,D29E04,D29E09,GET2904,GET2905,GI-3703,*HEP716,*ECG159
MPS3704	2N2222,2N2224A,2N2540,2N4116,2N3302,2N5818,*ECG123A,*HEP721
MPS3705	2N915,2N2939,2N2997,2N2900,2N4013,2N4400,2N4962,2N4962A,2N5450,2N5814,2N5820,D33029,GI-3705,MP56531,PET37C5,TR56,*HEP721,*ECG123A
MPS3706	2N2222,2N2540,2N3116,2N2424A,2N3302,2N3706,2N5451,2N5818,GI-3706,MP53704,PET3706,

TRANSISTOR SUBSTITUTES

MPS10-RED-MT1039A

Q'ty to Sub	To Replace	Substitute This Type
	MPSA102GRN (CONT)	2N5369, 2N5371, 2N5377, 2N5825, 2N5826, 2N6004, 2SC367, 2SC943, BC107, BC107A, BC171A, BCY59A, BFY39-2, BSW83, GET2222, GI-3643, MM3904, MP53694, MP53704, MP53666, MP5A10-BLU, MP5A10-YEL, MP5A20-BLU, MP5A20-GRN, MP5A20-YEL, PET1002
	MPSA10-RED	2N708, 2N708A, 2N718, 2N731, 2N744A, 2N760, 2N780, 2N784A, 2N914, 2N916, 2N916A, 2N2315, 2N2369, 2N2369A, 2N2396, 2N2481, 2N2501, 2N2523, 2N2710, 2N2952, 2N3009, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3508, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N3682, 2N3903, 2N3946, 2N3973, 2N3974, 2N3975, 2N3976, 2N4123, 2N4437, 2N4140, 2N4275, 2N4400, 2N4982, 2N5027, 2N5029, 2N5144, 2N5824, 2SC67, 2SC68, 2SC310, 2SC321, 2SC427, 2SC601, 2SC6012, 2SC639, 2SC689, 2SC766, BFY39-1, BSW802, BSY93, GET708, GET914, GET2221, GET2369, GET3013, GET3014, GET3646, GI-3641, GI-3642, MM3903, MP52369, MP53693A, MP53705, MP56512, MP56530, MP56531, MP56565, MP56591, MP5A05, MP5A20-RED, PET1001, *TR-25
	MPSA10-WHT	2N760A, 2N760B, 2N909, 2N930B, 2N2522, 2N2524, 2N3116, 2N3227, 2N3242A, 2N3416, 2N3509, 2N3904, 2N3947, 2N4074, 2N4141, 2N4401, 2N4873, 2N4952, 2N5028, 2N5107, 2N5369, 2N5825, 2N6004, 2SC367, 2SC943, BC107A, BFY39-2, BSW83, GET2222, GI-3643, MM3904, MP53694, MP53704, MP53706, MP56513, MP56566, MP5A10-BLU, MP5A10-GRN, MP5A20-BLU, MP5A20-GRN, MP5A20-WHT, PET1002
	MPSA10-YEL	2N2484A, 2N3417, 2N4953, 2N5370, 2N5376, 2N5377, 2N5826, 2N6006, A1578, BC107, BC107B, BC1718, BCY59A, BCY598, BCY59C, BFY39-3, MP56514, MP56515, MP56520, MP5A20-YEL, TIS97
	MPSA20-BLU	2N3116, 2N3242A, 2N3302, 2N4954, 2N5371, 2N5376, 2N5377, A1578, BC107, BC171A, BC1718, BCY59A, BCY598, BFY39-3, MP53694, MP56514, MP56520, MP56566, MP5A20-YEL, PET1002
	MPSA20-GRN	2N2522, 2N3116, 2N3227, 2N3242A, 2N3302, 2N3904, 2N3947, 2N4141, 2N4401, 2N4952, 2N4954, 2N5028, 2N5107, 2N5369, 2N5371, 2N5377, 2N6004, 2SC943, BC107, BC171A, BCY59A, BFY39-2, BSW83, GET2222, GI-3643, MM3904, MP53694, MP56566, MP5A20-BLU, MP5A20-YEL, PET1002
	MPSA20-RED	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2369, 2N2369A, 2N2481, 2N2501, 2N2710, 2N2952, 2N3009, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N3682, 2N3903, 2N3973, 2N3974, 2N3975, 2N3976, 2N4123, 2N4437, 2N4140, 2N4275, 2N4400, 2N4982, 2N5027, 2N5029, 2N5144, 2N5824, 2SC67, 2SC68, 2SC310, 2SC321, 2SC427, 2SC601, 2SC6012, 2SC639, 2SC689, 2SC766, BFY39-1, BSW82, BSY93, GET708, GET914, GET2221, GET2369, GET3013, GET3014, GET3646, GI-3641, GI-3642, MM3903, MP52369, MP53693, MP56512, MP56530, MP56531, MP56565, PET1001
	MPSA20-WHT	2N2522, 2N3116, 2N3227, 2N3242A, 2N3302, 2N3904, 2N3947, 2N4141, 2N4401, 2N4873, 2N4952, 2N5028, 2N5107, 2N5369, 2N6004, 2SC943, BC107A, BFY39-2, BSW83, GET2222, GI-3643, MM3904, MP53694, MP56513, MP56566, MP5A20-BLU, MP5A20-GRN, PET1002
	MPSA20-YEL	2N4953, 2N5370, 2N5376, 2N5377, 2N6006, A1578, BC107, BC107B, BC1718, BCY59A, BCY598, BFY39-3, MP56514, MP56515, MP56520, TIS97
	MPSA55	2N4026, 2N5815, 2N5821, D29E04, D29E09
	MPSA56	2N4027
	MPSA70-BLU	2N743A, 2N2907A, 2N3136, 2N3251, 2N3251A, 2N3486, 2N3486A, 2N3504, 2N3505, 2N3906, 2N4034, 2N4035, 2N4143, 2N5244, 2N5366, 2N5373, 2N5374, 2N5376, 2N5377, 2N5378, 2N5379, 2N6005, 2SC601, BC261A, BCY79, BSW73, GET2906, GET2907, GI-3644, MM3906, MP56518, MP5A70-GRN, MP5A70-YEL
	MPSA70-GRN	2N2907, 2N2907A, 2N3136, 2N3251, 2N3251A, 2N3486, 2N3486A, 2N3504, 2N3505, 2N3672, 2N3673, 2N3906, 2N4034, 2N4035, 2N4143, 2N5244, 2N5366, 2N5373, 2N5375, 2N5379, 2N5447, 2N6005, 2SA603, A177, BC251A, BC261A, BCY79, BSW73, GET2906, GET2907, GI-3644, MM3906, MP56517, MP56518, MP5A70-BLU, MP5A70-WHT, MP5A70-YEL
	MPSA70-RED	2N2906, 2N2906A, 2N3073, 2N3121, 2N3135, 2N3250, 2N3250A, 2N3485, 2N3485A, 2N3905, 2N4142, 2N4402, 2N4403, 2N5365, 2N5372, 2N5448, BSW72, GET2904, GET2905, MM3905, MP56516, MP56533, MP56534
	MPSA70-WHT	2N2907, 2N2907A, 2N3136, 2N3251, 2N3251A, 2N3486, 2N3486A, 2N3504, 2N3505, 2N3672, 2N3673, 2N3905, 2N3906, 2N4034, 2N4035, 2N4143, 2N4222, 2N5366, 2N5373, 2N5375, 2N5447, 2N6005, 2SA603, A177, BC177, BC251A, BC261A, BSW73, GET2906, GET2907, GI-3644, MM3906, MP56517, MP56534, MP5A70-BLU, MP5A70-GRN
	MPSA70-YEL	2N2907, 2N2907A, 2N3251, 2N3251A, 2N4035, 2N4143, 2N5244, 2N5366, 2N5367, 2N5373, 2N5374, 2N5378, 2N5379, 2N6005, 2N6007, BC251A, BC261A, BCY79, BSW73, GET2906, GET2907, GI-3644, MM3906, MP56518, MP5A70-BLU
	MPSH02	*TR-22
	MPSH04	2N736A, 2N2390, 2N2460, 2N2464, 2N4963, BSW84, GET2221A, MPSH05, TIS99
	MPSH05	2N736A, 2N2390, 2N2460, 2N2464, 2N4963, BSW84, GET2221A, MPSH04, TIS99
	MPSH10	2N4873, MPSH11
	MPSH11	2N4873, MPSH10
	MPSH20	2N3013, GET3014, 2N834, 2N2368, 2N2710, 2N3210, 2N3510, 2N3648, 2SC427, 2SC601, 2SC689, GET3013, GET3014, GET3646, MM5006, MPS5652
	MPSH30	2N744, 2N2615, 2N3955, 2N3960, 2N4264, 2N5200, 2N5201, MP56568, MP56568A, MP56569, MP56570, MP5H02, MP5H10, MP5H11, MP5H31, MT1060A, PT720, *TR-22
	MPSH31	2N744, 2N2615, 2N3959, 2N3960, 2N4264, 2N5200, 2N5201, MP56568, MP56568A, MP56569, MP56570, MP5H02, MP5H10, MP5H11, MP5H30, MT1060A, PT720, *TR-22
	MPSH32	2N708, 2N743A, 2N744A, 2N834, 2N914, 2N3210, 2N3605A, 2N3606A, 2SC321, 2SC427, 2SC601, 2SC689, GET708, GET914, GET3013, GET3014, GET3646
	MPSL01	2N2896, 2N2899, 2N37C0, 2N5550, 2N5551, *MPS0001
	MPSL07	2N2894A, 2N3546, 2N5056, 2N5057, 2N5292, MPSL08
	MPSL08	2N2894A, 2N3546, 2N5056, 2N5057, 2N5292
	MPSL51	2N5400
	MPSU01	
	MPSU02	
	MPSU03	*NEP714
	MPSU04	*NEP714
	MPSU05	MPSU06
	MPSU06	
	MPSU10	*GE-27
	MPSU51	2N3867
	MPSU52	2N4407, *SK3025
	MPSU55	2N5322, 2N5323, MPSU56, *SK3025
	MPSU56	2N5322, 2N5323, *SK3025
	MPT40	M.P. PT40
	MPT501	M.P. PT501
	MSA7505	2N5016, MSA8505
	MSA8503	
	MSA8505	2N3733, 2N5016, MSA7505
	MSA8506	2N5591, 2N5705, MP1603
	MSA8507	2N3646, 2N5701, 2N5994, 2N5996, 3TX602
	MSA8508	2N5889, 2N5905, 3TX601
	MT1038	MT1038A, MT1039
	MT1038A	MT1038, MT1039
	MT1039	MT1038, MT1038A
	MT1039A	

Q1 Q2 To Replace	Substitute This Type
MT1050	
MT1060	MT1038, MT1038A, MT1039
MT1060A	
MT1061	
MT1061A	
MT1062	
MT1063	
MT1070	
MT1115	MT1116
MT1116	MT1115
MT3833	MT3834
MT3834	MT3833
MT5763	MT5764, MT5765
MT5764	2N5595, 2N5765, MT5765
MT5765	
NA20	REFER TO SECTION 2
NK121	REFER TO SECTION 2
NK122	2N660, 2N661, NK121, NK122, NK124, NK127, *HEP2, *DS-56, *HF35, *GE-9, *ECG160
NK123	2N660, 2N661, NK121, NK122, NK124, NK125, NK127, *HEP2, *DS-56, *HF35, *GE-9, *ECG160, *GE-9, *HF35, *DS-56, *HEP2
NK124	2N661, 2N2374, *ECG160, *GE-9, *HF35, *DS-56, *HEP2
NK125	2N599, 2N661, 2N2001, 2N2374, NK124, *HEP2, *DS-56, *HF35, *GE-9, *ECG160
NK126	2N598, 2N599, 2N661, 2N1998, 2N2001, 2N2374, MA1703, NK124, NK125, *ECG102A, *GE-9, *HF35, *DS-56, *HEP254
NK127	2N660, 2N661, NK121, NK124, *HEP2, *DS-56, *HF35, *GE-9, *ECG126
NK128	2N660, 2N661, NK121, NK122, NK124, NK125, NK127, *ECG100, *GE-9, *HF35, *DS-56, *HEP2
NK129	2N660, 2N661, NK121, NK122, NK123, NK124, NK125, NK126, NK127, NK128, *DS-56, *HF35, *GE-9, *ECG100
NK211	NK218, *HEP254, *ECG158, *DS-26, *AT20M, *GE-2
NK213	NK211, NK216, *HEP254, *ECG158, *GE-2, *AT20M, *DS-26
NK214	NK213, NK216, NK221, NK228, *DS-26, *AT20M, *GE-2, *ECG158, *HEP254
NK215	NK214, *HEP254, *ECG158, *GE-2, *AT20M, *DS-26
NK216	NK211, NK213, *DS-26, *AT20M, *GE-2, *ECG158, *HEP254
NK217	*HEP254, *ECG158, *GE-2, *AT20M, *DS-26
NK218	*DS-26, *AT20M, *GE-2, *ECG158, *HEP254
NK221	NK228, *HEP254, *ECG100, *GE-2, *AT20M, *DS-26
NK222	2N508A, 2N598, 2N599, 2N652, 2N652A, 2N655, 2N655A, 2N1185, 2N1190, 2N1193, 2N1316, 2N1997, 2N1998, 2N2171, 2N2374, MA888, NK223, *DS26, *AT20M, *SK3004, *GE-2, *ECG102A, *HEP254, *TR-05
NK223	2N508A, 2N598, 2N599, 2N652, 2N652A, 2N655, 2N655A, 2N1185, 2N1190, 2N1193, 2N1316, 2N1997, 2N1998, 2N2171, 2N2374, MA888, NK222, *HEP254, *TR-05, *ECG102, *GE-2, *SK3004, *AT20M, *DS26
NK224	2N594, 2N598, 2N600A, 2N608, 2N382, 2N383, 2N356A, 2N397, 2N614B, 2N141C, 2N461, 2N526, 2N526A, 2N527, 2N527A, 2N586, 2N597, 2N651, 2N651A, 2N654, 2N654A, 2N1008A, 2N1125, 2N1175, 2N1175A, 2N1189, 2N1192, 2N1348, 2N1349, 2N1350, 2N1351, 2N1354, 2N1355, 2N1356, 2N1357, 2N1373, 2N1375, 2N1377, 2N1415, 2N1448, 2N1449, 2N1452, 2N1678, 2N1681, 2N1707, 2N2375, 2S8403, MA887, NK221, NK226, NK228, SF-T223, *DS26, *AT20M, *SK3004, *GE-2, *ECG102, *TR-05, *HEP253
NK225	2N61A, 2N618, 2N381, 2N524, 2N524A, 2N525, 2N525A, 2N650, 2N650A, 2N653, 2N1191, 2N1313, 2N1413, 2N1446, 2N1447, 2N1451, MA886, SF-T221, SF-T222, *HEP253, *TR-05, *ECG102, *GE-2, *SK3004, *AT20M, *DS26
NK226	2N383, 2N397, 2N461, 2N508A, 2N598, 2N599, 2N652, 2N652A, 2N655, 2N655A, 2N1008A, 2N1125, 2N1190, 2N1193, 2N1316, 2N1354, 2N1355, 2N1356, 2N1357, 2N1377, 2N1449, 2N1998, MA888, NK222, NK223, SF-T223, *DS26, *AT20M, *SK3004, *GE-2, *ECG102, *TR-05, *HEP254
NK227	MA883, *HEP254, *ECG102, *GE-2, *SK3004, *AT20M, *DS26
NK228	NK221, *DS-28, *AT20M, *GE-2, *ECG102, *HEP253
NK231	NK223, *HEP254, *ECG102, *GE-2, *AT20M, *DS-26
NK232	2N2001, *DS-26, *AT20M, *GE-2, *ECG102, *HEP254
NK301	NK302
NK302	
NK303	*ECG102A, *SK3004, *GE-2
NK304	
NK401	*ECG121, *GE-16, *SK3009, *DS503, *PT40, *HEP232, *AA4
NK402	NK403, NK404, *AA4, *HEP232, *PT40, *DS503, *SK3009, *GE-3, *ECG121
NK403	*ECG121, *GE-3, *SK3009, *DS503, *PT40, *HEP232, *AA4
NK404	NK402, NK403, *AA4, *HEP232, *PT40, *DS-503, *SK3009, *GE-3, *ECG121
NK405	NK402, NK403, NK404, *ECG121, *GE-3, *SK3009, *DS503, *PT40, *HEP232, *AA4
NK451	2N2858, 2N399, 2S8449, *ECG131, *HEP232, *TR-16, *GE-3, *AA4, *PT40, *DS503, *SK3009
NK452	2N258, 2N2362, 2N2368, 2N2858, 2N399, 2S8449, NK451, *SK3009, *DS503, *PT40, *AA4, *GE-3, *TR-01, *HEP232, *ECG131
NK453	2N235A, 2N285A, AD149, *HEP232, *TR-01, *ECG131, *GE-3, *AA4, *PT40, *DS503, *SK3009
NK713	*SK3010, *DS-66, *NA20, *GE-8, *ECG103A, *HEP641
NK773	2SD105, *HEP641, *TR-C8, *ECG103A, *GE-8, *DS-66, *NA20
NO400	REFER TO SECTION 2
NR5	REFER TO SECTION 2
NR10	REFER TO SECTION 2
NR700	REFER TO SECTION 2
-NS381	2N743A, 2N744A, 2N834, 2N3011, 2N3210, 2SC247, 2SC601, 2SC609, GET3013, GET3014, GET3646, *GE-17, *EN10, *TR-22, *ECG108
-NS475	2N3648, *ECG123A, *HEP50, *TR-25, *GE-17, *EN10
-NS476	2N3647, *EN10, *GE-17, *HEP50, *ECG123A
-NS477	*ECG123A, *HEP55, *GE-17, *EN10
-NS478	2N2521, *HEP50, *TR-25, *ECG123A
-NS479	*ECG123A, *TR-25, *HEP50
-NS480	*HEP55, *ECG123A
-NS731	2N3340, MM709, *ECG123A, *HEP50, *TR-21, *EN10, *GE-17
-NS732	2N2331, 2N3959, 2N3960, *ECG159, *HEP52, *EN10, *GE-17
-NS733	2N3340, *ECG123A, *TR-25, *HEP50, *EN10, *GE-17
-NS734	2N2331, *ECG123A, *HEP50
-NS792	
-NS793	
-OC16	*GE-3, *HEP230, *ECG104, *PT40, *SK3009, *DS503, *AA4
OC22	OC23, OC24, *GE-3, *ECG104, *TR-16, *HEP230, *AA4, *DS503, *SK3009, *PT50
OC23	*PT50, *SK3009, *DS503, *AA4, *HEP230, *TR-16, *ECG104, *GE-3
OC24	OC22, OC23, *GE-3, *ECG104, *TR-16, *HEP230, *AA4, *DS503, *SK3009, *PT40

TRANSISTOR SUBSTITUTES

OC26—PET800

Q1 To Replace	Substitute This Type
OC26	SEE 2N1314
OC27	2N242, 2N3074, 2N376A, 2N1168, 2N1539A, 2N1544A, 2N3613, CQT1110, CQT1110A, CQT1111, CQT1111A, MP2060, *PT40, *SK3009, *DS-503, *HEP230, *ECG104, *GE-3
OC28	SEE 2N1666
OC29	SEE 2N1667
OC30	25B130, 25B448, 25B481, *GE-30, *ECG131, *DS-503, *SK3009, *PT40
OC35	SEE 2N1668
OC36	SEE 2N1669
OC44	2N2953, 25A18, 25B186, 25B188, SF-T308, *AA1, *JR30X, *DS-25, *SK3005, *HEP640, *ECG126, *GE-1
OC45	25B186, 25B188, OC44, OC47, SF-T307, SF-T308, SF-T323, *GE-1, *ECG102A, *HEP640, *TR-05, *SK3005, *DS25, *JR10, *AA1
OC46	*AA1, *JR10, *DS25, *SK3005, *TR-05, *HEP254, *ECG102A, *GE-9
OC47	2N2953, *GE-9, *ECG102A, *HEP254, *SK3005, *DS25, *JR10, *AA1
OC57	OC59, *TR-05, *HEP253, *ECG102A, *HF35, *DS-56, *GE-9
OC58	OC59, OC60, *GE-9, *HF35, *SK3003, *ECG102A, *HEP254, *TR-05
OC59	*TR-05, *HEP254, *ECG102A, *HF35, *DS-56, *GE-9
OC60	OC59, *GE-9, *HF35, *SK3003, *ECG102A, *HEP254, *TR-05
OC65	25A182, 25A201, 25A203, 25B185, OC66, *TR-05, *HEP253, *ECG102A, *SK3004, *JR15, *DS26, *GE-2, *AA1
OC66	25A182, 25A201, 25A202, 25B335, 25B336, *AA1, *GE-2, *DS26, *JR15, *SK3004, *ECG102A, *HEP253, *TR-05
OC70	2N215, 25B170, 25B171, 25B172, NKT214, NKT215, OC73, *TR-05, *HEP253, *ECG102A, *SK3003, *JR5, *DS26, *GE-2, *AA1
OC71	2N838, 2N2956, 2N3323, 2N3324, 2N3325, 25B43A, 25B56, 25B56A, 25B75A, 25B77, 25B172, ASY30, NKT213, NKT214, NKT216, *AA1, *GE-2, *DS26, *JR5, *SK3004, *ECG102A, *HEP253, *TR-05
OC71N	2N838, 2N2188, 2N2956, 2N3323, 2N3324, 2N3325, 25B43A, 25B56, 25B56A, 25B66, 25B75A, 25B77, 25B175, 25B176, ACY23, ACPY32, NKT213, NKT216, NKT224, NKT226, SF-T315, *GE-2, *DS26, *SK3004, *ECG102A, *HEP254, *TR-05
OC72	25B178A, NKT211, *HEP254, *ECG102A, *SK3003, *DS26, *JR15, *GE-2, *AA1
OC73	*GE-2, *AT20M, *DS26, *SK3003, *ECG102A, *HEP254, *TR-05
OC74	25B324, *HEP254, *ECG102A, *SK3003, *DS26, *AT100M, *GE-2, *AA1
OC75	2N2188, 2N2189, 2N2428, 2N2429, 2N2614, 2N2706, 2N2953, 2N2957, 25B176, 25B178A, 25B345, 25B347, 25B371, 25B439, 25B440, NKT211, *ECG102A, *AA1, *GE-2, *AT30M, *DS-26, *SK3003, *HEP254, *TR-05
OC75N	2N2189, 2N2428, 2N2429, 2N2613, 2N2635, 2N2706, 2N2953, 25B345, 25B347, 25B348, 25B371, 25B439, 25B440, *TR-05, *HEP254, *SK3004, *DS26, *GE-2, *ECG102A, *AA1, *GE-2, *AT20M, *DS26, *SK3003, *ECG102A, *HEP254, *TR-05
OC76	2N2706, 25B370, 25B371, NKT211, NKT222, NKT223, NKT226, *ECG102A, *GE-2, *DS26, *SK3004, *JR15, *HEP253, *AA1
OC77	NKT217, NKT227, *AA1, *HEP253, *JR15, *SK3004, *DS26, *GE-2, *ECG102A
OC79	AC152, ASY70, *HEP253, *ECG102A, *GE-2, *DS26, *SK3004, *AT100M, *AA1
OC80	*ECG102A, *HEP254
OC139	*GE-7, *HEP641, *TR-08, *ECG101, *DS-72, *NR5, *AA1
OC140	*AA1, *NR5, *DS25, *SK3005, *HEP641, *GE-7
OC141	*HEP641, *ECG101
OC170	2N3783, 2N3784, 25A246, 25A279, A1383, AF134, AF135, SF-T316, SF-T354, SF-T357, SF-T358, *ECG100, *GE-1, *SK3006, *DS41, *JR100, *AA1, *HEP637
OC602	25B43, 25B172, 25B185, 25B365, NKT214, SF-T322, *ECG102A, *GE-2, *HEP254, *TR-05, *JR15, *SK3004, *DS26, *AA1
-OC602—SPEZ	
OC603	*ECG102A, *HEP254, *TR-05, *DS26, *SK3004, *JR15, *GE-2
OC604	SEE AC122
-OC604—SPEZ	
OC613	SEE AF101
OC614	2N2189, 2N2635, OC615, *HEP639, *ECG126, *AA1, *DS25, *SK3008, *JR100, *GE-9
OC615	2N2635, *GE-1, *JR100, *SK3006, *DS41, *AA1, *ECG126, *HEP639
OD603	
OD603/50	
PADT50	AUY10, *TR-01, *ECG104, *GE-16
PAR12	REFER TO SECTION 2
PBC107A	2N3116, 2N3302, 2N4970, 2N5376, 2N5377, A1578, BC107, BC107A, BC167, BC171A, BCY59A, BCY59B, BF739-3, PBC107B
PBC107B	2N4953, 2N5370, 2N6006, A1578, BC107B, BC171B, BCY59C, T1597
PBC108A	2N2925, 2N6124, 2N4265, A1588, A1598, BC108, BC108A, BC172A, BCY58A, BCY58B, PBC108B, PBC108C
PBC108B	2N6002, 2N6008, A1588, A1598, BC108B, BC109, BC109C, BC168, BC169, BC172B, BCY58C, PBC108D, A158C, A159C, BC108C, BC109B, BC172C, BCY58D, PBC109C
PBC108C	2N6002, 2N6008, A1588, A1598, BC108B, BC109, BC109C, BC168, BC169, BC172B, BCY58C, PBC108B, A158C, A159C, BC108C, BC109B, BC172C, BCY58D, PBC108C
PBC109B	2N7088, 2N7844, 2N916, 2N916A, 2N4281, 2N2501, 2N3013, 2N3014, 2N3115, 2N3301, 2N3647, 2N3903, 2N3946, 2N3974, 2N3976, 2N4123, 2N4140, 2N4227, 2N4400, 2N4951, 2N4962, 2N5027, 2N5144, 2N5368, 25C67, 25C68, 25C601N, 25C639, 25C764, BSW82, FT3641, FT3642, GET2221, GET2369, GI-3641, GI-3642, MH3903, MPS6530, MPS6531, *HEP50, *TR-24, *ECG123A
-PEP9	2N2331, 2N3241A, 2N5810, 25C68, 25C639, D33D21, Tn62
-PEP95	2N916, 2N916A, 2N3862, 2N3946, 2N3974, 2N3976, 2N4951, 2N4962, 2N5144, 2N5368, MH3903
PET1001	2N3116, 2N3302, 2N5376, 2N5377
PET1002	2N871, 2N2462, 2N2466, 2N3038
PET1075A	*ECG154
PET2001	2N916, 2N916A, 2N2369, 2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3862, 2N4873, 2N5144, 25C67, 25C68, 25C639, 25C764, PET1001
PET2002	2N3242A, 2N4954, 2N5371, PET1002
PET3001	2N7444, 2N2710, 2N4137, 2N4418, 2N5029, 25C601, 25C689, MPS2369
PET3002	2N3227, 2N4873
PET3004	2N8712, 2N222A, 2N2540, 2N3302, 2N5449, 2N5582, 2N5818, 2N601C, 2N6014, GI-3704
PET3705	2N915, 2N2539, 2N2897, 2N2900, 2N4013, 2N4962, 2N5450, 2N5814, 2N5920, U33D29, GI-3705, Tn54
PET3706	2N2222, 2N2540, 2N3242A, 2N3302, 2N3706, 2N5451, 2N5818, GI-3706, Tn60
PET4001	2N3242A, 2N4074, *ECG128, *EM10, *GE-17
PET4002	PET4003
PET4003	
PET4004	
PET4001	2N718, 2N731, 2N760, 2N916, 2N916A, 2N2221, 2N2315, 2N2501, 2N2539, 2N2897, 2N2900, 2N3301, 2N3705, 2N413, 2N4962, 2N5450, 2N5814, GI-3705, PET3705, Tn62
PET6002	2N760A, 2N760B, 2N909, 2N9308, 2N2222, 2N2350, 2N2350A, 2N2522, 2N2524, 2N2540, 2N3242A, 2N3704, 2N5449, 2N5451, 2N5818, 2N6010, 40458, GI-3706, PET3704, PET3706, PET8000, Tn60
PET8000	2N760A, 2N760B, 2N2522, 40458

Q1 To Replace	Substitute This Type
PET8001	PET8002, PET8003, PET8004
PET8002	PET8004
PET8003	PET8001, PET8002, PET8004
PET8004	PET8002
PET8101	*TR-21
PN26	REFER TO SECTION 2
PN66	REFER TO SECTION 2
PN350	REFER TO SECTION 2
-PT24	*HF35, *DS-56, *TR-05, *HEP3, *GE-9, *ECG160
-PT25	*ECG160, *GE-9, *HEP3, *TR-05, *DS-56, *HF35
PT6	REFER TO SECTION 2
PT12	REFER TO SECTION 2
PT25	REFER TO SECTION 2
PT32	REFER TO SECTION 2
PT40	REFER TO SECTION 2
PT50	REFER TO SECTION 2
PT150	REFER TO SECTION 2
PT201	REFER TO SECTION 2
PT250	REFER TO SECTION 2
PT501	REFER TO SECTION 2
PT515	REFER TO SECTION 2
PT530	SEE 2N1709
PT530A	SEE 2N2783
PT531	SEE 2N2874
PT600	
PT601	
PT612	2N2437, *ECG128
PT613	SEE 2N2782
PT665	HST6011, HST6012, HST6309, HST6310, HST6409, HST6410, PT665A
PT665A	HST6012, HST6310, HST6409, HST6410
PT692	SEE 2N2781
PT703	*SN80, *GE-20, *ECG123A, *HEP50, *TR-22
PT720	2N2501, 2N3013, 2N3014, 2SC67, 2SC68, 2SC639, 2SC764, *ECG123A, *GE-20, *SN80
PT886	*SK3020, *DS-66, *SN80, *HEP53, *TR-25, *ECG123A, *GE-20
PT887	*GE-18, *ECG123A, *TR-25, *HEP53, *SK3024
PT888	*SK3024, *HEP53, *TR-25, *ECG123A, *GE-18
PT896	*ECG128, *HEP243
PT897	*HEP53, *TR-25, *ECG123A, *GE-17, *EN10
PT898	*EN10, *GE-17, *ECG123A, *HEP53
PT1515	
PT1544	*TR-25
PT1545	*TR-25
PT1558	*ECG123A
PT1937	
PT1941	2N1902, *ECG130, *HN100, *GE-19
PT1949	
PT1963	HST7806
PT2523	PT2524, PT2525
PT2524	PT2525
PT2525	PT2524
PT2540	2N3295, 2N5188
PT2610	
PT2620	PT2620A
PT2620A	PT2620
PT2630	
PT2635	HST6012, HST6310, HST6409, HST6410, HST7013
PT2640	
PT2660	
PT2670	2N2202, PT2610, PT2630
PT2760	2N708A, 2N784A, 2N916, 2N916A, 2N2369, 2N2369A, 2N2481, 2N2501, 2N3009, 2N3013, 2N3014, 2N3511, 2N3647, 2N3862, 2N4137, 2N5144, 2SC67, 2SC68, 2SC639, 2SC764, 85W82, GET2369, *SN80, *HEP50, *ECG123A, *GE-20
PT4800	2N2297, 2N2594, *ECG123A, *GE-20, *SN80, *SK3024
PT4816	HST5001, HST5002, HST5501, HST5502, *EN10, *GE-17, *ECG107
PT4830	*ECG107, *GE-17, *EN10
-RT482	2N1253, 2N2309, 2N2320, 2SC150, TN81, *ECG128, *TR-25
-RT483	2N497, 2N696, 2N2476, 2N3512, 85Y91, SE8001, *TR-25, *ECG128
-RT484	2N656, 2N1987, 2N2477, 2N2951, 2N3122, 2N5188, 2SC32, 2SC116, 2SC151, 2SC152, 2SC594, 85Y63, 85Y92, *ECG128, *TR-25
-RT697H	2N2396, 2N2523
-RT699H	
-RT1890M	HST5013
-RT1893	HST5004
-RT5151	2N656, 2N697, 2N2017, 2N2108, 2N2848, 2N2951, 2N3015, 2N3299, 2N3326, 2N4960, 2SC32, 2SC352, 2SC594, 2SC651, 7A31, 85Y92, *ECG128, *TR-25
-RT5152	2N656, 2N697, 2N2017, 2N2108, 2N2848, 2N2951, 2N3015, 2N3299, 2N3326, 2N4960, 2SC32, 2SC352, 2SC594, 2SC651, 7A31, 85Y92, *TR-25, *ECG128
-RT5203	*TR-25
-RT5204	2N2330, 2SC74, 2SC352
-RT5212	2N697, 2N1613A, 2N2380A, 2N2848, 2N3015, 2N3109, 2N3299, 2N3326, 2N4960, 2N4961, 2SC199, SE8002
RT5230	SEE 2N2309
-RT5401	*ECG128, *SK3024
-RT5402	*SK3024, *ECG128, *GE-18
-RT5403	40635, *GE-18, *ECG128, *SK3024
-RT5404	40635, *SK3024, *ECG128, *GE-18
S2N1486	2N1486
S2N2034A	2N2858
-S15649	PET4002, PET4003, SE4002, SE4010, *ECG123A, *GE-17, *EN10
-S15650	2N3365, 2N4286, 2N4287, PET4002, SE4002, SE4010, *EN10, *GE-17, *ECG161
-S15657	2N269A, 2N2701, 2N3009, 2N3013, 2N3014, 2N3688, 2N3689, 2N3690, 2N3862, 2N4295, 2N4418, 2N5029, 2SC67, 2SC601N, 2SC639, 2SC764, GET2369, MM2483, SE5001, SE5002, SE5003, SE5006, *ECG161, *GE-17, *EN10, *HEP56
-S15658	2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3688, 2N3689, 2N3690, 2N3862, 2N4295, 2N4418, 2N5029, 2SC67, 2SC601N, 2SC639, 2SC764, GET2369, MM2483, SE5001, SE5002, SE5003, SE5006, *HEP56, *EN10, *GE-17, *ECG161

TRANSISTOR SUBSTITUTES

S15659—SDT1257

To Replace	Substitute This Type
-S15659	2N3137, 2N3326, 25C651, *ECG161, *GE-17, *EN10
-S15660	*ECG128
-S18100	
-S18200	2N2460, 2N2461, 2N2519
SA310	2N721, 2N721A, 2N722A, 2N978, 2N1254, 2N1255, 2N1256, 2N1257, 2N1259, 2N1991, 2N2162, 2N2393, 2N2968, 2N2969, 2N3039, 2N4008, 2N5208, FT1746, SA411, T1S38, T1W135, *HEP51, *TR-19, *GE-21, *SP70, *DS-56, *ECG159
SA311	2N721, 2N721A, 2N722A, 2N978, 2N1254, 2N1255, 2N1256, 2N1257, 2N1259, 2N1991, 2N2162, 2N2393, 2N2968, 2N2969, 2N3039, 2N4008, 2N5208, FT1746, SA411, T1S38, T1W135, *ECG159, *DS-56, *SP70, *TR-19, *HEP51
SA312	2N721, 2N721A, 2N722A, 2N978, 2N1254, 2N1255, 2N1256, 2N1257, 2N1259, 2N1991, 2N2393, 2N3039, 2N4008, 2N5208, FT1746, T1S38, *HEP51, *TR-19, *GE-21, *SP70, *DS-56, *ECG159
SA313	2N721, 2N721A, 2N722A, 2N978, 2N1254, 2N1255, 2N1256, 2N1257, 2N1259, 2N1991, 2N2393, 2N3039, 2N4008, 2N5208, FT1746, T1S38, *ECG159, *DS-56, *SP70, *GE-21, *TR-19, *HEP51
SA314	2N721, 2N721A, 2N722A, 2N978, 2N1254, 2N1255, 2N1256, 2N1257, 2N1259, 2N1991, 2N2393, 2N3039, 2N4008, 2N5208, FT1746, T1S38, *HEP51, *TR-19, *GE-21, *SP70, *DS-56, *ECG159
SA315	2N721, 2N721A, 2N722A, 2N978, 2N1254, 2N1255, 2N1256, 2N1257, 2N1259, 2N1991, 2N2393, 2N3039, 2N4008, 2N5208, FT1746, T1S38, *ECG159, *DS-56, *SP70, *GE-21, *TR-19, *HEP51
SA316	2N721, 2N721A, 2N978, 2N1254, 2N1256, 2N1259, 2N2393, 2N4008, *HEP51, *TR-19, *GE-21, *SP70, *DS-56, *ECG159
SA410	2N721, 2N721A, 2N722A, 2N978, 2N2393, 2N2969, 2N3039, 2N4008, 2N5208, FT1746, SA411, T1S38, T1W135, *TR-19, *HEP52, *ECG159, *DS-56, *SP70, *GE-21
SA411	2N721, 2N721A, 2N722A, 2N978, 2N2393, 2N2969, 2N3039, 2N4008, 2N5208, FT1746, T1S38, T1W135, *GE-21, *SP70, *DS-56, *ECG159, *HEP52, *TR-19
SA412	2N721, 2N721A, 2N722A, 2N978, 2N2393, 2N2969, 2N3039, 2N4008, 2N5208, FT1746, SA411, T1S38, T1W135, *TR-19, *HEP52, *ECG159, *DS-56, *SP70, *GE-21
SA413	2N721, 2N721A, 2N722A, 2N978, 2N2393, 2N2969, 2N3039, 2N4008, 2N5208, FT1746, SA411, T1S38, T1W135, *GE-21, *SP70, *DS-56, *ECG159, *HEP52, *TR-19
SA414	2N721, 2N721A, 2N722A, 2N978, 2N2393, 2N2969, 2N3039, 2N4008, 2N5208, FT1746, SA411, T1S38, T1W135, *TR-19, *HEP52, *ECG159, *DS-56, *SP70, *GE-21
SA415	2N721, 2N721A, 2N722A, 2N978, 2N2393, 2N2969, 2N3039, 2N4008, 2N5208, FT1746, SA411, T1S38, T1W135, *GE-21, *SP70, *DS-56, *ECG159, *HEP52, *TR-19
SA416	2N721, 2N721A, 2N978, 2N2393, 2N2969, 2N2971, 2N4008, MM4052, SA411, *TR-19, *HEP52, *ECG159, *DS-56, *SP70, *GE-21
-SA537	2N858, 2N860, 2N923, 2N2274, 2N2971, MM4052, *TR-19, *HEP52, *ECG106, *SP70, *GE-21
-SA538	2N860, 2N862, 2N2274, 2N2276, 2N2378, *GE-21, *SP70, *ECG106, *HEP52, *TR-19
SA539	2N858, 2N860, 2N923, 2N2274, 2N2971, MM4052, *TR-19, *HEP52, *ECG106, *SP70, *GE-21
SA540	2N860, 2N862, 2N2274, 2N2276, 2N2378, *GE-21, *SP70, *ECG106, *HEP52, *TR-19
-SB100	2N346, 2N501, 2N741, 2N2258, 2N2259, 2N2999, *ECG126, *TR-17, *HEP2, *J30X3, *DS-25, *JK3008, *A41
SB101	SEE 2N346
SB102	SEE 2N345
SB103	SEE 2N346
-SB200	2N344, 2N346, 2N741, 2N2999, *ECG126, *HEP2, *TR-12, *DS-56, *HF35, *GE-9
-SDT1001	
-SDT1002	
-SDT1003	2N5239, 2N5240, DT5411
-SDT1004	2N5239, 2N5240, DT5423
-SDT1005	2N5240, DT5423
-SDT1006	
-SDT1007	
-SDT1011	
-SDT1012	
-SDT1013	2N5239, 2N5240
-SDT1014	2N5239, 2N5240, MJ413, MJ423
-SDT1015	2N5240, MJ413, MJ423
-SDT1016	
-SDT1017	
SDT1050	SDT1055
SDT1051	SDT1052, SDT1056, SDT1057
SDT1052	SDT1053, SDT1057, SDT1058
SDT1053	SDT1054, SDT1058, SDT1059
SDT1054	SDT1059
SDT1055	SDT1050
SDT1056	SDT1051, SDT1052, SDT1057
SDT1057	SDT1052, SDT1053, SDT1058
SDT1058	SDT1053, SDT1054, SDT1059
SDT1059	SDT1054
SDT1060	SDT1050, SDT1055
SDT1061	SDT1051, SDT1052, SDT1056, SDT1057, SDT1062
SDT1062	SDT1052, SDT1053, SDT1057, SDT1058, SDT1063
SDT1063	SDT1053, SDT1054, SDT1058, SDT1059, SDT1064
SDT1064	SDT1054, SDT1059
SDT1150	SDT1155
SDT1151	SDT1152, SDT1156, SDT1157
SDT1152	SDT1153, SDT1157, SDT1158
SDT1153	SDT1154, SDT1158, SDT1159
SDT1154	SDT1159
SDT1155	SDT1150
SDT1156	SDT1151, SDT1152, SDT1157
SDT1157	SDT1152, SDT1153, SDT1158
SDT1158	SDT1153, SDT1154, SDT1159
SDT1159	SDT1154
SDT1160	SDT1150, SDT1155
SDT1161	SDT1151, SDT1152, SDT1156, SDT1157, SDT1162
SDT1162	SDT1152, SDT1153, SDT1157, SDT1158, SDT1163
SDT1163	SDT1153, SDT1154, SDT1158, SDT1159, SDT1164
SDT1164	SDT1154, SDT1159
SDT1250	SDT1255
SDT1251	SDT1252, SDT1256, SDT1257
SDT1252	SDT1253, SDT1257, SDT1258
SDT1253	SDT1254, SDT1258, SDT1259
SDT1254	SDT1259
SDT1255	SDT1250
SDT1256	SDT1251, SDT1252, SDT1257
SDT1257	SDT1252, SDT1253, SDT1258

Q1 To Replace	Substitute This Type
SDT1258	SDT1253, SDT1254, SDT1259
SDT1259	SDT1254
SDT1260	SDT1250, SDT1255
SDT1261	SDT1251, SDT1252, SDT1256, SDT1257, SDT1262
SDT1262	SDT1252, SDT1253, SDT1257, SDT1258, SDT1263
SDT1263	SDT1253, SDT1254, SDT1258, SDT1259, SDT1264
SDT1264	SDT1254, SDT1259
SDT1808	SDT1860
SDT1809	SDT1860, SDT1861
SDT1810	SDT1861, SDT1862
SDT1860	
SDT1861	SDT1860
SDT1862	SDT1861
SDT1908	SDT1960
SDT1909	SDT1960, SDT1961
SDT1910	SDT1961, SDT1962
SDT1960	
SDT1961	SDT1960
SDT1962	SDT1961
SDT2008	
SDT2009	
SDT2010	
-SDT2101	
-SDT2110	
-SDT2111	
-SDT2112	
-SDT2150	
-SDT2151	
-SDT2152	
-SDT2205	
-SDT2305	
SDT3101	SDT3102
SDT3102	
SDT3103	2N5312, 2N5314, 2N5316, 2N5318, 2N5386, SDT3104, SDT3107, SDT3108
SDT3104	2N5314, 2N5318, 2N5386, SDT3108
SDT3105	SDT3101, SDT3102
SDT3106	SDT3102
SDT3107	2N5312, 2N5314, 2N5316, 2N5318, 2N5386, SDT3103, SDT3104, SDT3108
SDT3108	2N5314, 2N5318, 2N5386, SDT3104
SDT3109	
SDT3125	SDT3126
SDT3126	SDT3127
SDT3127	SDT3128
SDT3128	SDT3129
SDT3129	
SDT3201	2N5288, 2N5329, 8155001, HST7140, HST7154, KSP1156, SDT3209
SDT3202	2N5313, 2N5317, 2N5412, 8155004, 8155005, KSP1154, SDT3203, SDT3206, SDT3207
SDT3203	2N4301, 2N5006, 2N5313, 2N5315, 2N5317, 2N5319, 2N5412, 8155000, 8155002, 8155003, 8155004, 8155005, KSP1155, SDT3204, SDT3207, SDT3208
SDT3204	2N4301, 2N5006, 2N5288, 2N5315, 2N5319, 8155000, 8155001, 8155002, 8155003, HST7140, KSP1155, SDT3201, SDT3208, SDT3209
SDT3205	KSP1154, SDT3202, SDT3206
SDT3206	2N5313, 2N5317, 2N5412, 8155004, 8155005, KSP1154, SDT3202, SDT3203, SDT3207
SDT3207	2N4301, 2N5006, 2N5313, 2N5315, 2N5317, 2N5319, 2N5412, 8155000, 8155002, 8155003, 8155004, 8155005, KSP1155, SDT3203, SDT3204, SDT3208
SDT3208	2N4301, 2N5006, 2N5288, 2N5315, 2N5319, 8155000, 8155001, 8155002, 8155003, HST7140, KSP1155, SDT3201, SDT3204, SDT3209
SDT3209	2N5288, 2N5329, 8155001, HST7140, HST7154, KSP1156, SDT3201
SDT3225	SDT3226
SDT3226	SDT3227
SDT3227	SDT3228
SDT3228	SDT3229
SDT3229	
SDT3301	SDT3302
SDT3302	2N5410, SDT3303
SDT3303	2N5410, 2N5411, SDT3304
SDT3304	2N5411
SDT3305	SDT3306
SDT3306	2N5408, SDT3307
SDT3307	2N5408, 2N5409, SDT3308
SDT3308	2N5409, SDT3309
SDT3309	
SDT3321	SDT3322, *SK3025
SDT3322	2N5406, SDT3323, *SK3025
SDT3323	2N5406, 2N5407, SDT3324
SDT3324	2N5407
SDT3325	SDT3326
SDT3326	2N5404, SDT3327
SDT3327	2N5405, 2N5405, SDT3328
SDT3328	2N5405, SDT3329
SDT3329	
SDT3401	2N3747, SDT3402, SDT6411
SDT3402	2N3747, 2N3748, SDT3403, SDT6411, SDT6412
SDT3403	2N3748, 2N3749, 2N3996, SDT3404, SDT6412, SDT6413
SDT3404	2N3749, 2N3996, SDT6413
SDT3405	1718-0602, 1718-0605, SDT3406, SDT6408
SDT3406	1718-0602, 1718-0605, 1718-0802, 1718-0805, SDT3407, SDT6408, SDT6409
SDT3407	1718-0802, 1718-0805, 1718-1002, 1718-1005, SDT3408, SDT6409, SDT6410
SDT3408	1718-1002, 1718-1005, 1718-1202, 1718-1205, SDT3409, SDT6410
SDT3409	1718-1202, 1718-1205, 1718-1402, 1718-1405, 1718-1602, 1718-1605
SDT3421	HST5001, HST5501, SDT3422
SDT3422	2N2297, 2N2594, HST4453, HST5001, HST5002, HST5501, HST5502, SDT3423
SDT3423	2N2297, 2N2594, HST4453, HST4454, HST5002, HST5003, HST5502, HST5503, SDT3424
SDT3424	HST4454, HST5003, HST5503
SDT3425	HST4483, HST5006, HST5506, SDT3426
SDT3426	HST4451, HST4483, HST5006, HST5007, HST5506, HST5507, SDT3427

TRANSISTOR SUBSTITUTES

SDT3427--SDT5506

Q1 To Replace	Substitute This Type
SDT3427	HST4451, HST4452, HST5007, HST5008, HST5507, HST5508, SDT3428
SDT3428	HST4452, HST5008, HST5508, SDT3429
SDT3429	HST5009, HST5509
SDT3501	SDT3502, *SK3025
SDT3502	SDT3503, *SK3025
SDT3503	SDT3504, *SK3025
SDT3504	
SDT3505	SDT3506
SDT3506	SDT3507
SDT3507	SDT3508
SDT3508	
SDT3509	SDT3510
SDT3510	SDT3511
SDT3511	SDT3512
SDT3512	
SDT3513	SDT3514
SDT3514	SDT3515
SDT3515	SDT3516
SDT3516	
SDT3601	SDT3602
SDT3602	SDT3603
SDT3603	SDT3604
SDT3604	
SDT3901	SDT3902
SDT3902	SDT3903
SDT3903	SDT3904
SDT3904	
SDT4301	SDT4302, SDT4307, SDT4308
SDT4302	SDT4303, SDT4308
SDT4303	
SDT4304	SDT4305, SDT4310, SDT4311
SDT4305	SDT4306, SDT4311, SDT4312
SDT4306	SDT4312
SDT4307	SDT4301, SDT4302, SDT4308
SDT4308	SDT4302, SDT4303
SDT4309	
SDT4310	SDT4304, SDT4305, SDT4311
SDT4311	SDT4305, SDT4306, SDT4312
SDT4312	SDT4306
SDT4451	SDT4452
SDT4452	
SDT4453	SDT4454
SDT4454	
SDT4455	SDT4456
SDT4456	
SDT4483	SDT4451, SDT9005
SDT4551	HST4551, HST4552, SDT4552
SDT4552	HST4552
SDT4553	2N2697, 2N2698, HST4553, HST4554, SDT4554
SDT4554	2N2698, HST4554
SDT4555	HST4555, HST4556, SDT4556
SDT4556	HST4556
SDT4583	HST4551, HST4583, SDT4551
SDT4901	HST5056, HST5556, KSP1051, KSP1052, KSP1053, SDT4902, SDT4903
SDT4902	KSP1052, KSP1053, KSP1054, KSP1055, SDT4903, SDT4904, SDT4905
SDT4903	KSP1052, KSP1053, KSP1054, KSP1055, SDT4902, SDT4904, SDT4905
SDT4904	KSP1053, KSP1054, KSP1055, SDT4903, SDT4905
SDT4905	KSP1054, KSP1055, SDT4904
SDT4921	HST6904, HST7901, HST7902, HST7903, KSP1071, KSP1072, KSP1073, SDT4922, SDT4923, SDT7901, SDT7902, SDT7903
SDT4922	HST7902, HST7903, HST7904, KSP1072, KSP1073, KSP1074, KSP1075, SDT4923, SDT4924, SDT4925, SDT7902, SDT7903, SDT7904
SDT4923	HST7902, HST7903, HST7904, HST7905, KSP1072, KSP1073, KSP1074, KSP1075, SDT4922, SDT4924, SDT4925, SDT7902, SDT7903, SDT7904, SDT7905
SDT4924	HST7903, HST7904, HST7905, KSP1073, KSP1074, KSP1075, SDT4923, SDT4925, SDT7903, SDT7904, SDT7905
SDT4925	HST7904, HST7905, KSP1074, KSP1075, SDT4924, SDT7904, SDT7905
SDT5001	HST5001, HST5002, SDT5002
SDT5002	HST5002, HST5003, SDT5003
SDT5003	HST5003
SDT5004	HST5004, HST5005, HST5051, SDT5005, SDT5051
SDT5005	HST5005, HST5051, HST5052, HST5053, SDT5053, SDT5052, SDT5053
SDT5006	HST5006, HST5007, SDT5007
SDT5007	HST5007, HST5008, SDT5008
SDT5008	HST5008
SDT5009	HST5009, HST5010, HST5054, SDT5010, SDT5054
SDT5010	HST5010, HST5054, HST5055, HST5056, SDT5054, SDT5055, SDT5056
SDT5011	HST5011, HST5012, SDT5012
SDT5012	HST5012, HST5013, SDT5013
SDT5013	HST5013
SDT5014	HST5014, HST5015, SDT5015
SDT5015	HST5015
SDT5051	HST5005, HST5051, HST5052, HST5053, SDT5005, SDT5052, SDT5053
SDT5052	HST5052, HST5053, SDT5053
SDT5053	HST5053
SDT5054	HST5010, HST5054, HST5055, HST5056, SDT5010, SDT5055, SDT5056
SDT5055	HST5055, HST5056, SDT5056
SDT5056	
SDT5501	HST5001, HST5002, HST5501, HST5502, SDT5001, SDT5002, SDT5502
SDT5502	HST5002, HST5003, HST5502, HST5503, SDT5002, SDT5003, SDT5503
SDT5503	HST5003, HST5503, SDT5003
SDT5504	HST5004, HST5005, HST5051, HST5504, HST5505, HST5551, SDT5004, SDT5005, SDT5051, SDT5505, SDT5551
SDT5505	HST5005, HST5051, HST5052, HST5053, HST5505, HST5551, HST5552, HST5553, SDT5005, SDT5051, SDT5052, SDT5053, SDT5551, SDT5552, SDT5553
SDT5506	HST5006, HST5007, HST5506, HST5507, SDT5006, SDT5007, SDT5507

Q's To Replace	Substitute This Type
SDT5507	HST5007, HST5008, HST5507, HST5508, SDT5007, SDT5008, SDT5508
SDT5508	HST5008, HST5508, SDT5008
SDT5509	HST5009, HST5010, HST5054, HST5509, HST5510, HST5554, SDT5009, SDT5010, SDT5054, SDT5510, SDT5554
SDT5510	HST5010, HST5054, HST5055, HST5056, HST5510, HST5554, HST5555, HST5556, SDT5010, SDT5054, SDT5055, SDT5056, SDT5554, SDT5555, SDT5556
SDT5511	HST5011, HST5012, HST5511, HST5512, SDT5011, SDT5012, SDT5512
SDT5512	HST5012, HST5013, HST5512, HST5513, SDT5012, SDT5013, SDT5513
SDT5513	HST5013, HST5513, SDT5013
SDT5514	HST5014, HST5015, HST5514, HST5515, SDT5014, SDT5015, SDT5515
SDT5515	HST5015, HST5515, SDT5015
SDT5551	HST5005, HST5051, HST5052, HST5053, HST5505, HST5551, HST5552, HST5553, SDT5005, SDT5051, SDT5052, SDT5053, SDT5505, SDT5552, SDT5553
SDT5552	HST5052, HST5053, HST5552, HST5553, SDT5052, SDT5053, SDT5553
SDT5553	HST5053, HST5553, SDT5053
SDT5554	HST5010, HST5054, HST5055, HST5056, HST5510, HST5554, HST5555, HST5556, SDT5010, SDT5054, SDT5055, SDT5056, SDT5554, SDT5555, SDT5556
SDT5555	HST5055, HST5056, HST5555, HST5556, SDT5055, SDT5056, SDT5555
SDT5556	HST5056, HST5556, SDT5056
SDT5901	HST5901, HST5902, SDT5902
SDT5902	2N4112, HST5902, HST5903, SDT5903
SDT5903	2N4112, 2N4114, HST5903
SDT5904	HST5904, HST5905, HST5951, SDT5905, SDT5951
SDT5905	HST5905, HST5951, HST5952, HST5953, SDT5952, SDT5953
SDT5906	HST5906, HST5907, SDT5907, *TR-26
SDT5907	HST5907, HST5908, SDT5908, *TR-26
SDT5908	HST5908
SDT5909	HST5909, HST5910, HST5954, SDT5910, SDT5954
SDT5910	HST5910, HST5954, HST5955, HST5956, SDT5954, SDT5955, SDT5956
SDT5911	HST5911, HST5912, SDT5912
SDT5912	2N4112, HST5912, HST5913, SDT5913
SDT5913	2N4112, 2N4114, HST5913
SDT5914	HST5914, HST5915, SDT5915
SDT5915	HST5915
SDT5951	HST5905, HST5951, HST5952, HST5953, SDT5905, SDT5952, SDT5953
SDT5952	HST5952, HST5953, SDT5953
SDT5953	HST5953
SDT5954	HST5910, HST5954, HST5955, HST5956, SDT5910, SDT5955, SDT5956
SDT5955	HST5955, HST5956, SDT5956
SDT5956	HST5956
SDT6001	HST6001
SDT6011	HST6011, HST6012, SDT6012
SDT6012	HST6012
SDT6013	2N2632, HST6013, HST6014, SDT6014
SDT6014	2N2633, 2N4115, HST6014
SDT6015	HST6015, HST6016, SDT6016
SDT6016	2N4116, HST6016
SDT6031	HST6011, HST6031, SDT6011
SDT6308	HST6308, HST6309, HST6408, SDT6309
SDT6309	HST6309, HST6310, HST6409, HST6410, SDT6310
SDT6310	HST6310, HST6409, HST6410
SDT6311	HST6311, HST6312, HST6411, HST6412, SDT6312
SDT6312	HST6312, HST6313, HST6412, HST6413, SDT6313
SDT6313	2N4115, HST6313, HST6413
SDT6314	HST6314, HST6315, HST6414, HST6415, SDT6315
SDT6315	HST6315, HST6316, HST6415, HST6416, SDT6316
SDT6316	2N4116, HST6316, HST6416
SDT6408	SDT6409
SDT6409	SDT6410
SDT6410	
SDT6411	SDT6412
SDT6412	SDT6413
SDT6413	
SDT6414	SDT6415
SDT6415	SDT6416
SDT6416	
SDT6901	HST6901, HST6902, SDT6902, *HEP241
SDT6902	HST6902, HST6903, HST6904, HST7901, KSP1071, SDT4921, SDT6903, SDT6904, SDT7901
SDT6903	HST6903, HST6904, HST7901, HST7902, KSP1071, KSP1072, SDT4921, SDT4922, SDT6904, SDT7901, SDT7902
SDT6904	HST6904, HST7901, HST7902, HST7903, KSP1071, KSP1072, KSP1073, SDT4921, SDT4922, SDT4923, SDT7901, SDT7902, SDT7903
SDT6905	HST6905, HST6906, SDT6906, *HEP241
SDT6906	HST6906, HST6907, HST6908, SDT6907, SDT6908
SDT6907	HST6907, HST6908, SDT6908
SDT6908	HST6908
SDT7011	1716-0602, 1716-0605, 1716-0802, 1716-0805, B148004, HST7011, HST7012, HST9901, HST9902, KSP1151, SDT7012
SDT7012	1716-0902, 1716-0805, 1716-1002, 1716-1005, B148000, B148004, HST7012, HST7013, HST9902, HST9903, KSP1152, SDT7013
SDT7013	1716-1002, 1716-1005, 1716-1202, 1716-1205, B148000, B148001, HST7013, HST9903, HST9904, KSP1152
SDT7014	2N5412, B155004, B155005, HST7014, HST7015, KSP1154, SDT7015
SDT7015	2N5412, B155000, B155002, B155003, B155004, B155005, HST7015, HST7016, KSP1155, SDT7016
SDT7016	B155000, B155001, B155002, B155003, HST7016, HST7140, KSP1155
SDT7017	HST7017, HST7018, SDT7018
SDT7018	HST7018, HST7019, SDT7019
SDT7019	HST7019
SDT7140	2N5329, B155001, HST7140, HST7154, KSP1156
SDT7141	HST7141, HST7156
SDT7150	1716-1402, 1716-1405, 1716-1602, 1716-1605, 1716-1802, HST7150, HST7151, KSP1153, ST91058, ST91059
SDT7151	2N5218, 1716-1602, 1716-1605, 1716-1802, HST7151, HST7152, HST7801, KSP1101, SDT7801, ST91059
SDT7152	2N5218, HST7152, HST7801, HST7802, HST7803, KSP1101, KSP1102, KSP1103, SDT7801, SDT7802, SDT7803

TRANSISTOR SUBSTITUTES

SDT7154—SDT8802

Q1 to Sub	To Replace	Substitute This Type
SDT7154	2N5329, HST7154, HST7155, KSP1156	
SDT7155	HST7141, HST7155, HST7156	
SDT7156	HST7141, HST7156	
SDT7201	HST7201, HST7202, HST7203, SDT7202, SDT7203, SDT7612	
SDT7202	HST7202, HST7203, HST7204, SDT7203, SDT7204	
SDT7203	HST7202, HST7203, HST7204, HST7205, SDT7202, SDT7204, SDT7205	
SDT7204	HST7204, HST7205, SDT7205	
SDT7205	HST7204, HST7205, SDT7204	
SDT7206	HST7206, HST7207, SDT7207	
SDT7207	HST7201, HST7202, HST7207, HST7208, SDT7201, SDT7202, SDT7208, SDT7612	
SDT7208	HST7202, HST7203, HST7204, HST7208, HST7209, SDT7202, SDT7203, SDT7204, SDT7209	
SDT7209	HST7203, HST7204, HST7205, HST7209, SDT7203, SDT7204, SDT7205	
SDT7401	2N2297, 2N2594, SDT7402, SDT7414, SDT7415	
SDT7402	2N2297, 2N2594, 2N4150, 2N5327, SDT7403, SDT7415, SDT7416	
SDT7403	2N4150, 2N5327, SDT7416	
SDT7411	SDT7412	
SDT7412	SDT7413	
SDT7413		
SDT7414	2N2297, 2N2594, SDT7401, SDT7402, SDT7415	
SDT7415	2N2297, 2N2594, 2N4150, 2N5327, SDT7402, SDT7403, SDT7416	
SDT7416	2N4150, 2N5327, SDT7403	
SDT7417	SDT7418	
SDT7418	SDT7419	
SDT7419		
SDT7601	KSP1174, SDT7602	
SDT7602	KSP1175, SDT7603	
SDT7603	2N4070, KSP1175	
SDT7604	KSP1176, SDT7605	
SDT7605	2N4071	
SDT7607	HST9201, HST9205, HST9206, HST9601, HST9802, KSP1171, SDT7608	
SDT7608	HST9202, HST9206, HST9207, HST9802, HST9803, KSP1172, SDT7609	
SDT7609	HST9202, HST9203, HST9207, HST9208, HST9209, HST9803, HST9804, KSP1172	
SDT7610	HST9204, HST9209, KSP1173, SDT7611	
SDT7611	HST7201, SDT7201, SDT7612	
SDT7612	HST7201, HST7202, HST7203, SDT7201, SDT7202, SDT7203	
SDT7801	HST7152, HST7801, HST7802, HST7803, SDT7802, SDT7803	
SDT7802	HST7802, HST7803, HST7804, SDT7803, SDT7804	
SDT7803	HST7802, HST7803, HST7804, HST7805, SDT7802, SDT7804, SDT7805	
SDT7804	HST7804, HST7805, SDT7805	
SDT7805	HST7804, HST7805, SDT7804	
SDT7806	HST7806, HST7807, SDT7807	
SDT7807	HST7152, HST7801, HST7802, HST7807, HST7808, SDT7801, SDT7802, SDT7808	
SDT7808	HST7802, HST7803, HST7804, HST7808, HST7809, SDT7802, SDT7803, SDT7804, SDT7809	
SDT7809	HST7803, HST7804, HST7805, HST7809, SDT7803, SDT7804, SDT7805	
SDT7901	HST7901, HST7902, HST7903, SDT7902, SDT7903	
SDT7902	HST7902, HST7903, HST7904, SDT7903, SDT7904	
SDT7903	HST7902, HST7903, HST7904, HST7905, SDT7902, SDT7904, SDT7905	
SDT7904	HST7904, HST7905, SDT7905	
SDT7905	HST7904, HST7905, SDT7904	
SDT7907	HST7901, HST7902, HST7907, HST7908, SDT7901, SDT7902, SDT7908	
SDT7908	HST7902, HST7903, HST7904, HST7908, HST7909, SDT7902, SDT7903, SDT7904, SDT7909	
SDT7909	HST7903, HST7904, HST7905, HST7909, SDT7903, SDT7904, SDT7905	
SDT7910	HST7907, HST7910, SDT7907	
SDT8002	2N3598, 2N3599, HST8002, HST8003, HST8015, HST8016, HST8301, HST8302, KSP1255, SDT8003, SDT8015, SDT8016, SDT8301, SDT8302	
SDT8003	2N3599, HST8003, HST8016, HST8302, KSP1255, SDT8016, SDT8302	
SDT8012	2N4002, HST8012, HST8013, KSP1252, SDT8013	
SDT8013	2N4002, 2N4003, HST8013, KSP1252, SDT8751, SDT8755	
SDT8015	2N3598, 2N3599, HST8002, HST8003, HST8015, HST8016, HST8301, HST8302, KSP1255, SDT8002, SDT8003, SDT8016, SDT8301, SDT8302	
SDT8016	2N3599, HST8003, HST8016, HST8302, KSP1255, SDT8003, SDT8302	
SDT8045	2N3597, HST8045, KSP1254	
SDT8070	HST8070, HST8071, HST8303, HST8304, SDT8071, SDT8303, SDT8304	
SDT8071	HST8071, HST8304, SDT8304	
SDT8105	HST8105, HST8106, HST8115, HST8116, SDT8106, SDT8115, SDT8116	
SDT8106	HST8106, HST8116, SDT8116	
SDT8110	HST8110, HST8111, SDT8111	
SDT8111	HST8111	
SDT8112	HST8112, HST8113, SDT8113	
SDT8113	HST8113	
SDT8114	HST8114	
SDT8115	HST8105, HST8106, HST8115, HST8116, SDT8105, SDT8106, SDT8116	
SDT8116	HST8106, HST8116, SDT8106	
SDT8301	HST8002, HST8003, HST8015, HST8016, HST8301, HST8302, SDT8302	
SDT8302	HST8003, HST8016, HST8302	
SDT8303	HST8070, HST8071, HST8303, HST8304, SDT8304	
SDT8304	HST8071, HST8304	
SDT8601	SDT8602	
SDT8602	SDT8603	
SDT8603	SDT8604	
SDT8604		
SDT8651	HST8651, HST8652, HST8653	
SDT8652	HST8652, HST8653, HST8654	
SDT8653	HST8653, HST8654, HST8655	
SDT8654	HST8654, HST8654, HST8655	
SDT8655	HST8654, HST8655	
SDT8751	2N4003, KSP1253, SDT8752	
SDT8752	KSP1253, SDT8753	
SDT8753	HST8801, HST8802, KSP1201, KSP1202, SDT8754, SDT8801, SDT8802	
SDT8754	HST8801, HST8802, HST8803, KSP1201, KSP1202, KSP1203, SDT8801, SDT8802, SDT8803	
SDT8755	2N4003, 2N5331, KSP1256, SDT8756	
SDT8756	2N5331, KSP1256, SDT8757	
SDT8757	2N5384, SDT8758	
SDT8758	2N5384	
SDT8801	HST8801, HST8802, HST8803, KSP1201, KSP1202, KSP1203, SDT8754, SDT8802, SDT8803	
SDT8802	HST8802, HST8803, HST8804, KSP1202, KSP1203, KSP1204, SDT8803, SDT8804	

Q1 Q2	To Replace	Substitute This Type
SDT8803	HST8803, HST8804, HST8805, KSP1203, KSP1204, KSP1205, SDT8804, SDT8805	
SDT8804	HST8803, HST8804, HST8805, KSP1203, KSP1204, KSP1205, SDT8803, SDT8805	
SDT8805	HST8804, HST8805, KSP1204, KSP1205, SDT8804	
SDT8920	1441-0805, 1441-0807, 1441-0810, 1441-1005, 1441-1007, 1441-1010, HST8920, HST8921, KSP1001, KSP1002	
SDT8921	1441-1005, 1441-1007, 1441-1010, 1441-1205, 1441-1207, 1441-1210, HST8921, HST8922, KSP1002, KSP1003	
SDT8922	1441-1205, 1441-1207, 1441-1210, HST8922, HST8923, KSP1003	
SDT8923	HST8923	
SDT8951		
SDT8952		
SDT8953		
SDT8954		
SDT8955		
SDT9001	SDT4483, SDT9002	
SDT9002	SDT4451, SDT4452, SDT9003	
SDT9003	SDT4452	
SDT9004	SDT9005, SDT9007, SDT9008	
SDT9005	2N4311, SDT4453, SDT4454, SDT9006, SDT9008, SDT9009	
SDT9006	2N739A, 2N4305, 2N4311, SDT4454, SDT9009	
SDT9007	SDT9008	
SDT9008	SDT9009	
SDT9009	2N4305	
SDT9010	SDT9011	
SDT9011	SDT4455, SDT4456, SDT9012	
SDT9012	SDT4456	
SDT9201	HST9201, HST9205, HST9206, *HN100, *EGG130, *GE-14	
SDT9202	HST9202, HST9203, HST9207, HST9208, *GE-14	
SDT9203	HST9203, HST9204, HST9208, HST9209	
SDT9204	HST9204, HST9209	
SDT9205	HST9201, HST9205, HST9206, *GE-14	
SDT9206	HST9202, HST9206, HST9207, *GE-14	
SDT9207	HST9202, HST9203, HST9207, HST9208	
SDT9208	HST9203, HST9204, HST9208, HST9209	
SDT9209	HST9204, HST9209	
SDT9210	2N3235, 2N3667, 2N3771, 2N5301, 2N5302, 156-043, 156-044, 40251, B170002-BLK, B170002-BRN, B170020, HST9201, HST9205, MJ3771, *GE-14	
SDT9701	2N3236, 2N3772, 2N5629, 2N5630, 108T2, MJ3772, SDT9702, SDT9704, SDT9705	
SDT9702	2N3773, 2N5630, 2N5631, 108T2, 109T2, SDT9703, SDT9705, SDT9706	
SDT9703	2N3773, 2N5631, 108T2, SDT9706	
SDT9704	2N3236, 2N5039, 2N5629, 2N5630, 108T2, SDT9705	
SDT9705	2N5039, 2N5630, 108T2, 109T2, SDT9706	
SDT9706	109T2	
SDT9707	2N3237, 2N3772, 1582-0808, 1582-0815, 1582-1008, 1582-1010, 1582-1015, MJ3772, SDT9701	
SDT9801	HST9901, HST9902	
SDT9802	HST9902, HST9903	
SDT9803	HST9903, HST9904	
SDT9804	HST9904	
SDT9901	HST9201, HST9205, HST9206, HST9801, HST9802	
SDT9902	HST9202, HST9206, HST9207, HST9802, HST9803	
SDT9903	HST9202, HST9203, HST9207, HST9208, HST9803, HST9804	
SDT9904	HST9203, HST9204, HST9208, HST9209, HST9804	
SE1001	2N916, 2N916A, 2N2847, 2N3693, 2N3862, 2N3903, 2N3946, 2N3974, 2N3976, 2N4227, 2N4962, 2N4994, 2N5027, EN916, MN3903, MPS3693, MPS3826, MPS6565, PET1001, *TR-24, *HEP738, *GE-17, *ECG161, *EN10, *SK3018, *DS-74	
SE1002	2N3302, 2N3694, 2N4995, A1578, BC107, BC167, BC171A, BC1718, BCY594, BCY598, MM2484, MP3694, MP3827, MP3696, PET1002, *ECG161, *HEP738, *TR-24, *DS-66, *SK3020, *SN80, *GE-20	
SE1010	2N7026, 2N743A, 2N783, 2N784, 2N834, 2N834A, 2N4421, 2SC455, K218, MPH5006, MPS834, MP56540, MP5820, MP5832, MP5837, MT1038, MT1038A, MT1039, MT1060, PET3001, TI584, TI5108, *HEP720, *ECG161, *GE-20, *SN80, *SK3019	
SE2001	2N916, 2N916A, 2N957, 2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3691, 2N3693, 2N3862, 2N4123, 2N4873, 2SC67, 2SC68, 2SC68, 2SC601N, 2SC639, 2SC764, EN916, MPS3693, MPS6513, PET1001, PET2001, SE1001, *HEP729, *TR-22, *ECG161, *GE-20, *SK3020, *SN80	
SE2002	2N3242A, 2N3692, 2N3694, A1578, BC107, BC167, BC171A, BC1718, BCY584, BCY598, BCY594, BCY598, MP3694, MP56514, MP56520, PET1002, PET2002, SE1002, *EN10, *GE-17, *ECG161, *TR-22, *HEP728	
SE3001	MT1060A, SE3005, *HEP720, *ECG161, *GE-17, *EN10, *SK3019, *DS-74, *AF4	
SE3002	2N744A, 2N2369A, 2N2615, 2N2616, 2N2729, 2N3563, 2N4137, 2N4295, 2N4418, 2N4996, 2N4997, 2N5029, 2SC601, 2SC601N, 2SC689, EN2369A, MM1941, MP35363, MP56507, MT1060A, SE3001, *TIS62, *TIS87, *AF4, *DS-74, *SK3019, *EN10, *GE-17, *ECG161, *HEP57, *TR-22	
SE3003	2N473, *HEP720, *ECG161	
SE3004	HST5904, HST5905, HST5951, HST5952, HST6905, HST6906, HST6907, *GE-19, *HN100, *ECG130	
SE3005	2N3920, 2N4114, HST5914, *ECG130, *HN100, *GE-19, *HEP247	
SE3006	2N3919, 2N4113, HST5904, HST6905, *GE-19, *HN100, *SK3027, *ECG130	
SE3007	*HN100, *ECG130, *GE-19, *HEP247	
SE3008	*HEP247, *GE-19, *ECG130, *HN100	
SE3009	HST5902, HST5903	
SE3010	HST5904, HST6905	
SE4001	2N422A, 2N4265, *SN80, *DS-66, *ECG123A, *GE-20, *HEP729	
SE4002	SE4010, *HEP728, *GE-20, *ECG123A, *DS-66, *SN80, *SK3020	
SE4010	SE4002, *SK3020, *SN80, *DS-66, *ECG123A, *GE-20, *HEP55	
SE4020	FT107C, *ECG161	
SE4021	FT107B, *ECG161	
SE4022	FT107A, *ECG161	
SE5001	2N369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3688, 2N3689, 2N3690, 2N3862, 2N4295, 2N4418, 2N4299, 2SC67, 2SC601N, 2SC639, 2SC764, GET2369, MM2483, SE5002, SE5003, SE5006, *ECG161, *HEP738, *TR-24, *GE-20, *SN80, *SK3019	
SE5002	2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3688, 2N3689, 2N3690, 2N3862, 2N4295, 2N4418, 2N5029, 2SC67, 2SC601N, 2SC639, 2SC764, GET2369, MM2483, SE5001, SE5003, SE5006, *SK3018, *EN10, *DS-81, *GE-17, *TR-24, *HEP738, *ECG161	
SE5003	2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3688, 2N3689, 2N3690, 2N3862, 2N4295, 2N4418, 2N5029, 2SC67, 2SC601N, 2SC639, 2SC764, GET2369, MM2483, SE5001, SE5002, *ECG161, *HEP56, *TR-24, *GE-17, *DS-81, *EN10, *SK3018	
SE5006	2N2369A, 2N2501, 2N3009, 2N3013, 2N3014, 2N3688, 2N3689, 2N3690, 2N3862, 2N4295, 2N4418, 2N5029, 2SC67, 2SC601N, 2SC639, 2SC764, GET2369, MM2483, SE5001, SE5002, SE5003, *ECG108, *ECG108	

TRANSISTOR SUBSTITUTES

SE5020-SF.T213

To Replace	Substitute This Type
SE5006(CONT)	*GE-17,*SK3018,*EN10,*DS-81,*TR-22,*HEP56
SE5020	2N917,2N918,2N3370,2N4253,2N5053,2N5054,2SC251,2SC251A,2SC252,2SC253,2SC602,2SC682,2SC683,40239,MT1061,SE5021,TI556,TI557,*HEP709,*TR-22,*DS-81,*EN10,*SK3018,*GE-17,*ECG161
SE5021	2N917,2N918,2N3370,2N4253,2N5053,2N5054,2SC251,2SC251A,2SC252,2SC253,2SC602,2SC682,2SC683,40239,MT1061,SE5020,TI556,TI557,*HEP709,*TR-22,*DS-81,*EN10,*SK3018,*GE-17,*ECG161
SE5022	2N917,2N918,2N3370,2N4253,2N5053,2N5054,2SC251,2SC251A,2SC252,2SC253,2SC602,2SC682,2SC683,40239,MT1061,SE5020,SE5021,SE5022,SE5023,SE5024,SE5050,SE5051,TI556,TI557,*HEP709,*TR-22,*EN10,*GE-17,*ECG161
SE5023	2N917,2N918,2N3370,2N4253,2N5053,2N5054,2SC251,2SC251A,2SC252,2SC253,2SC602,2SC682,2SC683,40239,MT1061,SE5020,SE5021,SE5022,SE5023,SE5024,SE5050,SE5051,TI556,TI557,*HEP709,*TR-22,*EN10,*DS-81,*SK3018,*TR-22,*HEP709
SE5024	2N917,2N918,2N3370,2N4253,2N5053,2N5054,2SC251,2SC251A,2SC252,2SC253,2SC602,2SC682,2SC683,40239,MT1061,SE5020,SE5021,SE5022,SE5023,SE5050,SE5051,TI556,TI557,*HEP709,*TR-22,*SK3018,*DS-81,*EN10,*GE-17,*ECG161
SE5025	2N743A,2N836,2N834A,2N2616,2N2729,2N4421,KT216,MM194,MM5006,MP5834,MP5607,MP5640,MP5642,MP5643,MP5658,MP5N20,MP5N32,MP5N37,MT1038,MT1038A,MT1039,MT1060,PET3001,TI584,TI5108,*ECG161,*GE-17,*EN10,*DS-81,*SK3018,*TR-22,*HEP709
SE5050	2N917,2N918,2N3370,2N4253,2N5053,2N5054,2SC251,2SC251A,2SC252,2SC253,2SC602,2SC682,2SC683,40239,MT1061,SE5020,SE5021,SE5022,SE5023,SE5024,SE5050,SE5051,TI556,TI557,*HEP709,*TR-22,*SK3018,*DS-81,*EN10,*GE-17,*ECG161
SE5051	2N917,2N918,2N3370,2N4253,2N5053,2N5054,2SC251,2SC251A,2SC252,2SC253,2SC602,2SC682,2SC683,40239,MT1061,SE5020,SE5021,SE5022,SE5023,SE5024,*HEP709,TI556,TI557,*ECG161,*GE-17,*EN10,*HEP709
SE5052	*HEP709,*ECG161
SE5055	2N917A,2N2865,2N3571,2N3572,2N3600,2N4134,2N4135,2N4252,2N4253,2SC567,2SC568,2SC611,2SC653,40235,40236,40237,40238,40240,40242,40295,40413,MT1061A,*HEP50
SE6001	2N760,2N760A,2N760B,2N916,2N1507,2N1983,2N1986,2N2522,2N2497,2N2900,2N3643,2N4962,40458,*HEP721,*TR-21,*ECG161,*SN80,*DS-66,*SK3020,*GE-20,2N3566,*GE-20,*SK3020,*DS-66,*SN80,*ECG161,*TR-22,*HEP721
SE6002	SE6020A, SE6021, SE6021A
SE6020	SE6020, SE6021, SE6021A
SE6021A	SE6021
SE6021A	SE6021
SE6022	SE6023
SE6023	2N2462,2N2466
SE7001	2N3114,2N3500,2N3712,2N3923,2N4925,2SC154C,2SC470-5,2SC470-6,2SC686,MM2259,MM2260,MM3009,*HEP713,*TR-19,*GE-20,*SK3010,*SN80,*DS-66,*ECG154
SE7002	2N699A,2N699B,2N1613B,2N2102A,2N3114,2N3500,2N3712,2N3923,2N4925,2SC49,2SC470-4,2SC470-5,2SC590,2SC686,MM3008,SE7001,*ECG154,*HEP713
SE7015	2N740,2N740A,2N910,2N1574,2N1973,2N3107,2SC353,2SC500
SE7016	SE7017,*ECG154
SE7017	2SC154C,*ECG154
-SE7030	*GE-12,*ECG124
SE7055	*ECG154,*GE-27
SE7056	*GE-27,*ECG154
SE7057	
SE8001	2N3110,2N3295,2N5188,PT1558,*ECG128,*GE-20,*HEP53,*TR-22,*SN80,*DS-66,*SK3024,2N1613A,2N1889,2N1974,2N3107,2N3109,2N4924,2N4961,*SK3024,*EN10,*TR-24,*HEP736,*GE-17,*ECG128
SE8002	*ECG154,*SK3047
SE8010	SE8010
SE8012	SE8041
SE8040	SE8041
SE8041	2N3724A,SE8042,*ECG128
SE8042	2N3724A,*ECG128
SE8540	2N2637,2N3244,2N3762,2N3764,2N5023,2N5042,2N5811,2N5815,D29E01,D29E04,MM3726,SE8541,SE8542
SE8541	2N3244,2N3762,2N5023,2N5042,MM3726,SE8542,*ECG129
SE8542	2N3244,2N3762,2N5023,MM3726,*SK3025
-SE9060	
-SE9061	
-SE9062	
-SE9063	
-SE9070	2N4111
-SE9071	2N4112
-SE9072	2N4111,2N4113
-SE9073	2N4112,2N4114
-SE9080	2N4111,KSP1175,SDT7602,SDT7603
-SE9081	2N4112
-SE9082	2N4070,2N4111,2N4113,KSP1175,SDT7603
-SE9083	2N4112,2N4114
-SE9570	
-SE9571	
-SE9572	
-SE9573	
-SE9580	
-SE9581	
-SE9582	
-SE9583	
SF.T124	*HEP253,*ECG158
SF.T125	SF.T125P,*ECG158,*HEP254
SF.T125P	*HEP254,*ECG158
SF.T130	*ECG158
SF.T131	*ECG158
SF.T131P	*ECG158
SF.T143	*ECG158,*HEP253
SF.T144	*HEP254,*ECG158,*AT20M,*DS-26,*GE-2
SF.T145	*ECG158
SF.T146	*ECG158
SF.T163	SF.T358,*HEP637,*ECG160,*GE-9,*DS-41,*SK3006
SF.T186	2SC69,2SC154,2SC194A,MM3001,*ECG154
SF.T212	2N376A,2N669,2N1227,2N4241,CDT1310,CDT1319,GC27,*GE-3,*TR-01,*HEP230,*ECG121,*DS-503,*PF40
SF.T213	2N1536,2N1535,2N2143,2N2143A,2N2144,2N2144A,CDT1320,SF.T214,SF.T236,SF.T239,*ECG121,*HEP230,*TR-01,*GE-16

Q1 To Replace	Substitute This Type
SF. T214	2N1535, 2N1536, 2N1971, 2N2144, 2N2144A, 2N2145, 2N2145A, COT1320, CCT1321, SF. T239, SF. T240, *GE-3, *TR-01, *HEP232, *ECG121
SF. T221	2N381, 2N524, 2N525, SF. T222, *ECG102, *HEP253, *GE-1, *HF12M, *DS-25
SF. T222	2N526, 2N527, 2N597, 2N1478, 2N2375, *HEP253, *ECG102
SF. T223	2N383, 2N598, 2N599, 2N1998, *ECG100, *HEP254, *DS-25, *HF12M, *GE-1
SF. T226	*GE-9, *HF35, *DS-56, *HEP253, *ECG100
SF. T227	2N1171, 2N1313, 2N1348, 2N1349, 2N1350, 2N1351, 2N2375, *ECG100, *HEP635, *DS-56, *HF35, *GE-9
SF. T228	2N1305, 2N1307, 2N1348, 2N1349, 2N1350, 2N1351, 2N2375, *GE-9, *HF35, *DS-56, *HEP635, *ECG100
SF. T229	2N1307, 2N1309, 2N1316, 2N1317, *ECG100, *HEP635, *DS-56, *HF35, *GE-9
SF. T232	SF. T233, *ECG102A
SF. T233	SF. T234
SF. T234	
SF. T237	2N397, 2N417, 2N508A, 2N522, 2N523, 2N599, 2N655, 2N655+, 2N1281, 2N1282, 2N1307, 2N1309, 2N1316, 2N1317, 2N1344, 2N1354, 2N1355, 2N1356, 2N1357, 2S9180, 2S9180+, 40269, SF. T223, *ECG100, *GE-9, *HF35, *DS-56, *HEP254, *TR-05
SF. T238	2N2143, 2N2143A, 2N2144, 2N2144A, 2N3611, 2N3612, AS217, KR6500, SF. T239, *TR-01, *HEP230, *GE-16, *ECG121
SF. T239	2N561, 2N2144, 2N2144A, 2N2145, 2N2145A, 2N3612, 2N3615, 2N3617, AS215, KR6500, SF. T240, *ECG121, *GE-16, *HEP232, *TR-01
SF. T240	2N561, 2N2145, 2N2145A, 2N2146, 2N2146A, 2N3615, 2N3616, 2N3617, 2N3618, AS215, *TR-01, *HEP232, *GE-25
SF. T243	*ECG158, *HEP254
SF. T250	2N553, 2N1011, 2N1541A, 2N1542A, 2N1546A, 2N1547A, *HEP232, *ECG121, *GE-25
SF. T264	253807, SF. T265, *ECG105, *HEP231, *GE-4, *DS-501, *PT501
SF. T265	25B331, 25B332, SF. T266, *PT501, *DS501, *SK3012, *GE-4, *HEP233, *ECG105, *AA5
SF. T266	25B332, 25B333, SF. T267, *AA5, *ECG105, *HEP233, *GE-4, *SK3012, *DS501, *PT501
SF. T267	*PT501, *DS501, *SK3012, *GE-4, *HEP233, *ECG105, *AA5
SF. T288	*HEP635, *ECG100, *GE-9, *DS-56, *HF35
SF. T298	*DS-72, *SK3011, *GE-5, *ECG101, *HEP641
SF. T306	25B185, M8073C, *HEP253, *TR-05, *ECG102A, *GE-9, *SK3004, *DS-56, *HF35
SF. T307	2N838, 2N3188, SF. T308, *HF35, *DS-56, *SK3005, *GE-9, *ECG126, *HEP253
SF. T308	*HEP63, *ECG126, *GE-9, *DS-56, *HF35
SF. T315	2N2188, 2N2189, 2N2190, 2N2191, 2N2957, 2S9177, *HF35, *DS25, *SK3008, *GE-9, *ECG160, *HEP637, *AA1
SF. T316	AF134, AF135, SF. T354, SF. T357, SF. T357P, SF. T358, *AA1, *HEP637, *ECG160, *GE-9, *SK3008, *DS25, *HF35
SF. T317	2N827, 2N2635, 2SA413, *HF35, *DS25, *SK3008, *GE-9, *ECG126, *HEP640
SF. T319	2N838, 2N3323, 2N3324, 2N3325, SF. T320, *ECG126, *HEP639, *GE-9, *SK3005, *DS25, *HF35
SF. T320	2N3323, 2N3324, 2N3325, 2SA413, SF. T317, *HF35, *DS25, *SK3008, *GE-9, *HEP639, *ECG126, *AA1
SF. T322	*HEP254, *ECG102A, *GE-2, *SK3004, *DS26, *AT20M
SF. T323	*AT20M, *SK3004, *GE-2, *ECG102A, *HEP253
SF. T337	25B346, 25B348, *SK3004, *HF35, *GE-9, *ECG102A, *HEP253, *TR-05
SF. T352	2N1382+, 25B490, SF. T353, *ECG102A, *HEP253, *TR-05, *GE-2, *AT20M, *SK3004, *DS26
SF. T353	25B186, 25B188, SF. T323, *DS26, *SK3004, *AT20M, *GE-2, *TR-05, *HEP254, *ECG102A
SF. T354	AF134, SF. T316, SF. T357, SF. T357P, SF. T358, *ECG126, *HEP637, *GE-9, *JRI00, *SK3008, *DS25, *AA1
SF. T357	SF. T358, *AA1, *DS25, *SK3008, *JRI00, *GE-9, *HEP637, *ECG126
SF. T357P	*ECG100, *HEP637
SF. T358	*HEP637, *ECG160, *GE-9, *JRI00, *SK3006, *DS41, *AA1
SHA7520	
SHA7521	
SHA7522	2N1238
SHA7523	2N1240
SHA7524	2N1242
SHA7525	
SHA7526	2N1239
SHA7527	2N1241
SHA7528	2N1243
SHA7529	2N1244, SHA7525
SHA7530	*TR-28
SHA7531	2N1440, *TR-28
SHA7532	2N1228, *TR-19
SHA7533	2N1230, 2N1441, *TR-28
SHA7534	2N1232, *TR-28
SHA7535	
SHA7536	2N1229, 2N3217, 2N3218, 2N3978, 2N4007, TW135, *TR-19
SHA7537	2N1231, 2N1442, 2N1443, 2N2946, 2N3219, 2N3979, *TR-28
SHA7538	2N1233, 2N4982, *TR-28
SHA7539	2N1234, SHA7535
SHA7597	2N1242, SHA7526
SHA7598	2N1243, SHA7528
SHA7599	2N1243
SK3003	REFER TO SECTION 2
SK3004	REFER TO SECTION 2
SK3005	REFER TO SECTION 2
SK3006	REFER TO SECTION 2
SK3007	REFER TO SECTION 2
SK3008	REFER TO SECTION 2
SK3009	REFER TO SECTION 2
SK3010	REFER TO SECTION 2
SK3011	REFER TO SECTION 2
SK3012	REFER TO SECTION 2
SK3013	REFER TO SECTION 2
SK3014	M.P. SK3009
SK3015	REFER TO SECTION 2
SK3016	M.P. SK3014
SK3017	REFER TO SECTION 2
SK3018	REFER TO SECTION 2
SK3019	REFER TO SECTION 2
SK3020	REFER TO SECTION 2
SK3021	REFER TO SECTION 2
SK3024	REFER TO SECTION 2
SK3025	REFER TO SECTION 2

TRANSISTOR SUBSTITUTES

SK3026—ST7200A

O b 1 To Replace	Substitute This Type
SK3026	REFER TO SECTION 2
SK3027	REFER TO SECTION 2
SK3028	M.P. SK3026
	REFER TO SECTION 2
SK3029	M.P. SK3027
	REFER TO SECTION 2
SK3034	REFER TO SECTION 2
SK3035	REFER TC SECTION 2
SK3036	REFER TC SECTION 2
SK3037	REFER TO SECTION 2
	M.P. SK3036
SK3038	REFER TO SECTION 2
SK3039	REFER TC SECTION 2
SK3040	REFER TC SECTION 2
SK3041	REFER TO SECTION 2
SK3044	REFER TC SECTION 2
SK3045	REFER TO SECTION 2
SK3046	REFER TO SECTION 2
SK3047	REFER TO SECTION 2
SK3048	REFER TO SECTION 2
SK3049	REFER TO SECTION 2
SK3052	REFER TC SECTION 2
SK3053	REFER TO SECTION 2
SK3054	REFER TC SECTION 2
SK3510	REFER TO SECTION 2
SK3511	REFER TO SECTION 2
SK3512	REFER TO SECTION 2
SK3513	REFER TO SECTION 2
SN60	REFER TO SECTION 2
SN80	REFER TO SECTION 2
-SO-1	*ECG126,*TR-12,*GE-9,*HF35
-SO-2	*HF35,*GE-9,*TR-12,*ECG126
-SO-3	*ECG126,*TR-12,*GE-9,*HF35
SP70	REFER TO SECTION 2
SP90	REFER TO SECTION 2
SRF12212	
SRF32214	
ST400	
ST401	ST400
-ST440	2N389
-ST450	
-ST4150	2N2106,*TR-25
-ST4201	2N696,2N2106,2N2477,2N2886,2N3295,2N5188,25C31,7A30,PT2540,SE8001,*TR-25
-ST4202	2N1615,2N1975,8F177,8FY65,MM3000,PT1558
-ST4203	2N656,2N697,2N2017,2N2108,2N2848,2N2951,2N3015,2N3299,2N3326,2N4960,25C32,25C352,25C594,25C651,7A31,8S192,*TR-25
-ST4204	2N657,2N16134,2N1889,2N1974,2N2386A,2N2891,2N3107,2N3109,2N4924,2N4961,25C199,25C353,25C470-3,SE8002
ST5641	2N957,2N3691,2N3693,2N3708-RED,2N3709,2N3845,2N3845A,2N3855A,2N3858,2N4966,2N4968,2N4996,2N5137,25C104A,25C105,25C323,25C371,25C400,25C401,25C402,25C404,25C459,25C460,25C461,25C468,25C535,25C536,25C544,25C563,25C641,25C645,25C715,25C838,25C839,EN916,G1-3709,PET3002,SE1001,SE2001,SE3005,*TR-22
ST7100	
ST10000	2N5386
ST10001	2N5386
ST14000	
ST14000A	
ST14011	
ST14012	
ST14013	
ST15013	
ST15014	
ST15015	
ST15043	ST15044
ST15044	ST15045
ST15045	
ST17003	2N4002,2N4210,2N4211,1768-0810,1768-0820,1768-0830,1768-1010,1768-1020,1768-1030,8148000,8148004,HST7012,HST7013,HST8012,HST8013,HST9902,HST9903,KSP1252,SDT8012,SDT8013
ST17004	2N4002,2N4003,2N4211,1768-1010,1768-1020,1768-1030,1768-1210,1768-1220,1768-1230,8148000,8148001,HST7013,HST8013,HST9903,HST9904,KSP1252,SDT8013,SDT8751
ST17060	ST17061
ST17061	ST17062
ST17062	
ST18007	
ST18008	HST8804,HST8805
ST18009	HST8803,HST8804,HST8805
ST18010	HST8801,HST8802,HST8803
ST18011	HST7805,SDT7805
ST18012	
ST18013	HST7802,HST7803,HST7804,KSP1102,KSP1103,KSP1104,KSP1105,SDT7802,SDT7803,SDT7804
ST18014	2N5218,HST7152,HST801,HST7802,KSP1101,KSP1102,SDT7801,SDT7802
ST18015	
ST18016	
ST18017	
ST18018	
ST40000	
ST40001	
ST54000	
ST54001	
ST61000	2N2605,2N2605A,2N3251,2N3251A,2N3547,2N3582,2N3702,2N3906,2N3914,2N3915,2N4034,2N4035,2N4121,2N4122,2N4143,2N4248,2N4359,2N4965,2N5244,2N5366,2N5447,2S A603,4177,8C251A,8C257,8C261A,8CY79,GET2506,GET2907,G1-3702,MM3906,MPS3702,MPS6517,MPS6518,MPSA70-BLU,MPSA70-GRN,MPSA70-WHT,MPSA70-YEL
ST72000	2N5005
ST72000A	2N5005

Q1 To Replace	Substitute This Type
ST72011	
ST72012	
ST72013	
ST72014	
ST72015	
ST72016	
ST72017	
ST72018	
ST72019	
ST72020	
ST72021	
ST74000	
ST74049	ST74050
ST74050	ST74051
ST74051	
ST75000	2N5322, 2N5323, 2N5679
ST75001	2N5679, 2N5680
ST76006	2N4999, 2N5286, 2N5385
ST76007	2N4999, 2N5286, 2N5385
ST84000	
ST84027	ST 84028, ST 84029
ST84028	ST 84029
ST84029	
ST86020	2N3492, ST86021, STT2650, STT2651, STT2653
ST86021	ST86022, STT2650, STT2651
ST86022	
ST90000	2N3999, 2N4116, 2N5004, 2N5084, 2N5285, 2N5348, 2N5349, 2N5479, 2N5480, 2N5730, HST6316, HST6416, SOT6316, STT6316, STT6416
ST91000	2N2202, ST91055
ST91054	ST91056
ST91055	
ST91056	
ST91057	ST91058
ST91058	ST91059
ST91059	
ST92006	ST92007
ST92007	ST92008
ST92008	
STC1024	
STC1080	2N1487, AMF105, AMF117, AMF117A, AMF118, AMF118A, 8DY23A, HST9205, HST9210, HST9801, M5A, *ECG130, *GE-19, *HEP247, *SK3027, *HN100
STC1081	2N1487, AMF105, AMF117, AMF117A, 8DY23A, HST9205, HST9206, HST9801, HST9802, *HN100, *SK3027, *HEP247, *GE-19, *ECG130
STC1082	2N1487, AMF106, 8DY24A, HST9206, HST9207, HST9802, HST9803, M5B, *ECG130, *GE-14, *SK3027
STC1083	2N1487, AMF115, AMF116, AMF210A, B170001-BLK, 8DY23A, HST9210, M5A, M10A, *SK3027, *HN100, *GE-19, *ECG130, *HEP247
STC1084	2N1487, AMF115, AMF116, AMF210A, B170004-BLK, 8DY23A, *HEP247, *ECG130, *GE-19, *HN100, *SK3027
STC1085	2N1488, AMF210B, B170004-BLK, B170007-BLK, 8DY24A, M5B, M10B, *SK3027, *GE-14
STC1300	2N1768, 2N2339
STC1550	2N1208, 2N1212, AMF108, AMF110
STC1551	2N1208, 2N1212, AMF108, AMF110
STC1552	AMF109
STC1553	2N1212, 2N3429
STC1726	
STC1728	2N2823, 2N2824
STC1731	ST15043
STC1733	2N2824
STC1736	ST15044, ST15045
STC1738	2N2825
STC1800	
STC1850	2N2036
STC2220	
STC2221	
STC2222	
STC2223	
STC2224	
STC2225	
STC2226	
STC2227	
STC2228	
STC2229	
STC2230	
STC2231	
STC2306	
-STC4401	2N4231, 2N4232, 2N5295, 2N5491, 2N5493, 2N5495, 40250, *HEP241
-STC5109/I	
-STC5110/I	
-STC5111/I	
-STC5112/I	
-STC5113/I	
-STC5114/I	
STC5202	
STC5203	
STC5204	
STC5205	
STC5206	
STC5207	
-STC5519/I	
-STC5520/I	
-STC5521/I	
-STC5522/I	
-STC5523/I	
-STC5524/I	
STC5610	*HEP242, *TR-19, *GE-21, *SK3025, *ECG129
STC5611	STC5612, *ECG129, *SK3025, *GE-21, *HEP242

TRANSISTOR SUBSTITUTES

STC5612--T0014

To Replace	Substitute This Type
STC5612	*HEP242, *SK3025, *ECG129
STC5624	STC5612
STC5802	
STC5803	
STC5804	
STC5805	
STC5806	
STC5807	
-STC7644	
-STC7645	
SYS1121	1723-2005
SYS1122	1723-2005
SYS1131	STS1132
SYS1132	STS1133
SYS1133	STS1134
ST51134	
STT1800	STT3000
STT1900	STT3100
STT2000	STT3200
STT2050	STT3250
STT2200	STT3400
STT2300	18112, 8CY248, STT3500
STT2400	STT2401, STT2402
STT2401	STT2400, STT2402
STT2402	
STT2403	STT2400, STT2401, STT2402
STT2404	STT2403
STT2405	STT2404
STT2406	
STT2650	STT2651, STT2652
STT2651	STT2650, STT2652
STT2652	
STT2653	STT2650, STT2651, STT2652
STT2654	STT2653
STT2655	STT2654
STT2656	
STT2800	STT2801, STT2802
STT2801	STT2800, STT2802
STT2802	
STT2803	STT2800, STT2801, STT2802
STT2804	STT2803
STT2805	STT2804
STT2806	
STT3000	STT1800
STT3100	STT1900
STT3200	STT2000
STT3250	STT2050
STT3400	STT2200
STT3500	18112, 8DY248, STT2300
STT4451	HST4451, HST4452, HST5007, HST5008, HST5507, HST5508, STT4452, STT4454, STT4456
STT4452	HST4452, HST5008, HST5508, STT4454, STT4456
STT4453	HST4453, HST4454, HST5002, HST5003, HST5502, HST5503
STT4454	HST4452, HST5008, HST5508, STT4452, STT4456
STT4455	HST4455, HST4456, HST5012, HST5013, HST5512, HST5513
STT4456	HST4452, HST5008, HST5508, STT4452, STT4454
STT6309	2N2877, 2N2879, HST6309, HST6310, HST6409, HST6410, SDT6309, SDT6310, STT2804, STT2805, STT6310, STT6409, STT6410
STT6310	2N2879, HST6310, HST6409, HST6410, SDT6310, STT2803, STT2804, STT6410
STT6312	2N2878, 2N2880, 2N3998, HST6312, HST6313, HST6412, HST6413, SDT6312, SDT6313, STT6313, STT6412, STT6413
STT6313	2N2880, 2N3998, 2N4115, HST6313, HST6413, SDT6313, STT6413
STT6315	2N3999, HST6315, HST6316, HST6415, HST6416, SDT6315, SDT6316, STT6316, STT6415, STT6416
STT6316	2N3999, 2N4116, HST6316, HST6416, SDT6316, STT6416
STT6409	2N2877, 2N2879, HST6309, HST6310, HST6409, HST6410, SDT6309, SDT6310, STT2804, STT2805, STT6309, STT6310, STT6410
STT6410	2N2879, HST6310, HST6409, HST6410, SDT6310, STT2803, STT2804, STT6310
STT6412	2N2878, 2N2880, 2N3998, HST6312, HST6313, HST6412, HST6413, SDT6312, SDT6313, STT6312, STT6313, STT6413
STT6413	2N2880, 2N3998, 2N4115, HST6313, HST6413, SDT6313, STT6313
STT6415	2N3999, HST6315, HST6316, HST6415, HST6416, SDT6315, SDT6316, STT6315, STT6316, STT6415, STT6416
STT9001	HST4483, HST5006, HST5506, HST9001, HST9002, SDT3426, SDT7411, STT9002
STT9002	HST4451, HST4452, HST5007, HST5008, HST5507, HST5508, HST9002, HST9003, SDT3427, SDT3428, SDT7412, SDT7413, STT4451, STT4452, STT4454, STT4456, STT9003
STT9003	HST4452, HST5008, HST5508, HST9003, SDT3428, SDT3429, SDT7413, STT4452, STT4454, STT4456
STT9004	8143000, 8143003, HST5001, HST5501, HST9004, HST9005, HST9007, HST9008, SDT3422, SDT7401, SDT7414, STT9005, STT9007, STT9008
STT9005	2N2877, 2N2879, 2N4150, 2N5327, 8143003, 8143006, HST4453, HST4454, HST4455, HST5002, HST5003, HST5502, HST5503, HST9005, HST9006, HST9008, HST9009, SDT3423, SDT3424, SDT7402, SDT7403, SDT7415, SDT7416, STT4453, STT9006, STT9008, STT9009
STT9006	2N4150, 2N5327, 8143006, HST4454, HST5003, HST5503, HST9006, HST9009, SDT3424, SDT7403, SDT7416, STT9009
STT9007	8143001, 8143004, HST5001, HST5501, HST9007, HST9008, STT9008
STT9008	2N5327, 8143004, 8143007, HST5002, HST5003, HST5502, HST5503, HST9008, HST9009, STT9009
STT9009	2N5327, 8143007, HST5003, HST5503, HST5009
STT9010	8143002, 8143005, HST5011, HST5511, HST9010, HST9011, SDT7417, STT9011
STT9011	8143005, 8143008, HST4455, HST4456, HST5012, HST5013, HST5512, HST5513, HST9011, HST9012, SDT7418, SDT7419, STT4455, STT9012
STT9012	8143008, HST4456, HST5013, HST5513, HST9012, SDT7419
SYL792	2N123A, 2N397, 2N415, 2N415A, 2N416, 2N1307, 2N1317, 2N1355, 2N1356, 2N1357, 2S9186, 2S9188, 4Q269, 5F. T223, *ECG100
-SYL4443	
T0003	SEE 2N207
T0004	SEE 2N207A
T0005	SEE 2N207B
T0014	SEE 2N2936

Q1 To Replace	Substitute This Type
T0015	SEE 2N535A
T0033	SEE 2N535
T1013	SEE 2N223
T1028	SEE 2N128
T1032	SEE 2N346
T1038	SEE 2N240
T1042	SEE 2N226
T1046	SEE 2N224
T1166	SEE 2N393
T1224	SEE 2N344
T1225	SEE 2N345
T1250	SEE 2N588
T1251	SEE 2N499
T1275	SEE 2N495
T1276	SEE 2N496
T1289	SEE 2N300
T1291	SEE 2N299
T1312	SEE 2N501
T1314	SEE 2N504
T1322	SEE 2N503
T1326	SEE 2N598
T1327	SEE 2N1122
T1328	SEE 2N1122A
T1334	SEE 2N597
T1342	SEE 2N502
T1346	SEE 2N599
T1347	SEE 2N670
T1392	SEE 2N1126
T1393	SEE 2N671
T1395	SEE 2N600
T1396	SEE 2N1124
T1397	SEE 2N1125
T1398	SEE 2N1127
T1431	SEE 2N672
T1472	SEE 2N1495
T1473	SEE 2N1496
T1474	SEE 2N1500
T1475	SEE 2N673
T1510	SEE 2N501A
T1512	SEE 2N601
T1537	SEE 2N1123
T1546	SEE 2N1129
T1573	SEE 2N1130
T1574	SEE 2N1128
T1808	SEE 2N1494
T1930	SEE 2N768
TA2658	SEE 2N3866
TA2714	SEE 2N4012
TA2761	SEE 40608
TA2791	SEE 2N5102
TF78/30	*HEP230,*ECG104
TF78/60	*ECG121
TI-156	
TI-156L	
-TI-158	
-TI-158A	
-TI-158AL	
-TI-158L	
TI-159	
TI-160	TI-161, TI-162
TI-161	TI-160, TI-162
TI-162	
TI-363	2N382, 2N383, 2N396A, 2N397, 2N415, 2N415A, 2N416, 2N527, 2N838, 2N1349, 2N1355, 2N1356, 2N1357, 2N2957, 2N3323, 2N3324, 2N3325, 5F, T223, *GE-1, *SK3005, *DS25, *HF35, *ECG160, *HEP3, *TR-05
TI-364	2N394, 2N404A, 2N414, 2N414B, 2N414C, 2N518, 2N526, 2N586, 2N1017, 2N1141, 2N1142, 2N1171, 2N1284, 2N1313, 2N1348, 2N1350, 2N1351, 2N1495, 2N1681, 2N2100, 2N2375, 2N2382, 2N2955, 2N2956, 2SA311, 2SA312, 2SA415, SF, T227, *TR-05, *HEP3, *ECG160, *HF35, *GE-9
TI-365	2N2635, *ECG160, *HEP3
-TI-388	2N838, 2N2957, 2N3323, 2N3324, 2N3325, *SK3006, *DS41, *HF35, *GE-9, *ECG160, *HEP3
-TI-389	2N1141, 2N1142, 2N1495, 2N2100, 2N2382, 2N2955, 2N2956, *HEP3, *ECG160, *GE-9, *HF35
TI-390	*ECG160, *HEP3
TI-391	*ECG160, *HEP3, *ECG160
-TI-392	2N700A
-TI-393	2N700A, *ECG160
TI-395	2N2635, *ECG160, *HEP3
-TI-396	*ECG160
TI-397	2N2957, 2N3323, 2N3324, 2N3325, *ECG160, *HEP3
TI-398	2N586, 2N2956, 2N3323, 2N3324, 2N3325, *HEP3, *ECG160
TI-399	2N404A, 2N518, 2N526, 2N586, 2N1141, 2N1348, 2N1350, 2N1351, 2N1495, 2N2100, 2N2375, 2N2382, 2N2955, 2N2956, 2SA311, 2SA312, *ECG160, *HEP3, *TR-05, *GE-9
TI-400	*GE-9, *HEP3, *ECG160, *DS-41, *SK3006
TI-401	2N3127, 2N3281, 2N3282, TI-402, *SK3006, *DS-41, *HF35, *ECG160, *HEP3, *TR-17, *GE-9
TI-402	2N3127, 2N3281, 2N3282, TI-401, *TR-17, *HEP3, *ECG160
TI-403	TI-400, *ECG160, *HEP3, *TR-17, *GE-9, *DS-41, *SK3006
-TI-407	2N4292, 2N4293, MP5918, MP56546, MP56547, *SK3019, *DS74, *EN10, *GE-17, *HEP56, *ECG108, *HF4
-TI-408	*AF4, *ECG108, *HEP56, *TR-21, *GE-17, *DS74, *SK3019
-TI-409	*SK3019, *DS74, *EN10, *GE-17, *TR-21, *HEP56, *ECG108, *AF4
-TI-411	*HEP55, *ECG123A
TI-412	SEE 2N3704
TI-413	SEE 2N3705
TI-414	SEE 2N3706
TI-415	SEE 2N3707
TI-416	SEE 2N3708
TI-417	SEE 2N3710

TRANSISTOR SUBSTITUTES

TI-418-TIG09

O S I	To Replace	Substitute This Type
	TI-418	SEE 2N3711
-	TI-419	PET4003,*ECG123A,*HEP55,*SK3019,*DS-74
	TI-420	SEE 2N2387
	TI-421	SEE 2N2388
	TI-422	SEE 2N851
	TI-423	SEE 2N852
	TI-424	SEE 2N2389
	TI-425	SEE 2N2390
	TI-428	SEE 2N2393
	TI-429	SEE 2N2394
	TI-430	SEE 2N849
	TI-431	SEE 2N850
	TI-432	SEE 2N2395
	TI-433	SEE 2N2396
	TI-474	SEE 2N929
	TI-475	SEE 2N930
	TI-480	2N696,2N1564,2N1958,2N2106,2N3295,2SC31,2SC824,7A30,PT2540,SE8001,*ECG123A,*TR-25,*HEP53,*EN10,*GE-17
	TI-481	2N1615,2N1975,MM3000,PT1558,*GE-20,*SN80,*ECG123A
	TI-482	2N1253,2N2309,2N2320,TN63,TN81,*ECG123A,*SN80,*SK3024,*GE-18,*HEP53,*TR-25
	TI-483	2N1958A,2N1987,2N2194,2N2194A,2N2194B,2N2217,2N2477,2N2618,2N3122,2N3252,2N3468,2N3554,2N3724,2N5188,2SC97,2SC109,BSX48,BSX49,BSY92,*TR-25,*HEP53,*GE-18,*SK3024,*SN80,*ECG123A
	TI-484	2N697,2N1838,2N1959A,2N2218,2N2270,2N2537,2N2848,2N2868,2N2958,2N3724A,2N4046,2N4960,2N5145,2SC503,2SC504,TN61,*ECG123A,*SN80,*SK3024,*GE-20,*HEP53
	TI-485	2N3318,2N2319,MP56540,MP56543,MP56548,*HEP50,*GE-17,*EN10,*ECG123A
	TI-486	2N1715,2N3108,2N3110,2N3725,2N4000,40367
	TI-487	2N2991
	TI-490	SEE 2N780
	TI-492	2N162,2N162A,2N163,2N334,2N475,2N480,2N543A,2N706C,2N708,2N717,2N743A,2N744A,2N783,2N834,2N834A,2N840,2N914,2N1151,2N1152,2N1278,2N1591,2N2312,2N2314,2N2387,2N2521,2N3210,2N3605A,2N3606A,2N3646,2N3973,2N3975,2N4420,2N4422,2SC120,2SC121,2SC124,2SC321,2SC382,2SC427,2SC562,2SC601,2SC689,BSY93,EN708,EN914,EN2369A,EN3009,EN3013,EN3014,GET708,GET916,GET3013,GET3014,GET3364,KT218,MP55006,MP5834,MP53646,MP56591,MP5A10-RED,MP5A20-RED,MP5H20,MP5H37,TI584,TI5108,*ECG123A,*SN80,*SK3020,*DS-66,*GE-20,*HEP53,*TR-24
	TI-493	2N264,2N475,2N706C,2N717,2N743A,2N783,2N834,2N834A,2N842,2N1150,2N1151,2N2314,2SC120,2SC121,2SC124,BSX25,GET706,KT219,MP55006,MP5834,MP56544,MP5H20,MP5H37,TI584,TI5108,*TR-24,*HEP53,*GE-20,*DS-66,*SK3020,*SN80,*ECG123A
	TI-494	2N358,2N718,2N843,2N916A,2N957,2N2315,2N2369A,2N2432A,2N3009,2N3013,2N3014,2N3193,2N3858A,2N3862,2N3903,2N3946,2N3974,2N3976,2N4123,2N4227,2N4473,2N4966,2N4994,2N5027,2N5824,2SC67,2SC68,2SC122,2SC318,2SC323,2SC424,2SC468,2SC536,2SC544,2SC601N,2SC639,2SC715,2SC764,EN916,MM3903,MP53693,MP53826,MP56513,MP56565,MP5A10-WHT,MP5A20-WHT,PET1001,SE1001,*ECG123A,*SN80,*SK3020,*DS-66,*GE-20,*HEP53,*TR-24
	TI-495	2N909,2N1153,2N2388,2N2484A,2N2586,2N3302,2N3566,2N3694,2N4287,2N4967,2N4995,2N5826,2SC316,2SC367,2SC587,2SC587A,AL1578,BC107,BC107A,BC123,BC129,BC167,BC171A,BCY59A,BCY59B,BFY39-3,EN2486,CI-3866,MM2484,MP53694,MP53827,MP56514,MP56520,MP56566,MP5A10-BLU,MP5A10-YEL,MP5A20-BLU,MP5A20-YEL,PBC107A,PBC107B,PET1002,SE1002,*HEP53,*GE-20,*DS66,*SK3020,*ECG123A
	TI-496	2N3425,2N498,2N498A,2N2039,MM3000,TI-481,*ECG123A,*DS-66,*SN80,*GE-20,*HEP53,*TR-25
-	TI-539	
-	TI-540	
	TI-890	SEE 2N2861
	TI-891	SEE 2N2862
	TI-1121	
	TI-1122	TI-1141
	TI-1123	TI-1121
	TI-1124	TI-1122, TI-1141, TI-1143
	TI-1125	
	TI-1126	TI-1145
	TI-1131	
	TI-1132	TI-1151
	TI-1133	STT2652, TI-1131
	TI-1134	STT2650, STT2651, TI-1132, TI-1151, TI-1153
	TI-1135	2N3491
	TI-1136	2N3488, 2N3492, STT2653, STT2654, TI-1155
	TI-1141	TI-1121
	TI-1142	TI-1122
	TI-1143	TI-1121, TI-1123, TI-1141
	TI-1144	TI-1122, TI-1124, TI-1142
	TI-1145	TI-1125
	TI-1146	TI-1126
	TI-1151	TI-1131
	TI-1152	TI-1132
	TI-1153	STT2650, STT2651, TI-1131, TI-1133, TI-1151
	TI-1154	TI-1132, TI-1152
	TI-1155	2N3491, 2N3492, STT2653, STT2654, TI-1135
	TI-1156	2N3488, 2N3489, TI-1136
	TI-3015	SEE 2N3570
	TI-3027	TI-3028,*ECG121,*HEP230,*SK3009
	TI-3028	TI-3029,*HEP232,*ECG121
	TI-3029	TI-3030,*ECG121,*HEP232
	TI-3030	TI-3031
	TI-3031	TI-3031
	-TIA01	*ECG102A,*SK3004,*DS-26
	-TIA02	*TR-05
	-TIA03	*TR-05,*HEP253,*ECG100
	-TIA04	*ECG102,*HEP254,*TR-05
	-TIA05	*TR-05,*HEP253,*ECG100
	-TIG05	2N4280,2N4281,2N4282,2N4283
	-TIG06	
	-TIG07	2N4282,2N4283
	-TIG08	
	-TIG09	

Q1 To Replace	Substitute This Type
·TIG10	
·TIP04	2N3902, 2N5240, DTS423, DTS423M
·TIP14	*GE-17, *ECG108, *EN10
·TIP24	*ECG152, *HEP24
·TIP27	*HEP244, *ECG157
TIP29	TIP29A, *ECG152
TIP29A	*ECG152
TIP30	TIP30A, *ECG153
TIP30A	*ECG153
TIP31	TIP31A, *ECG152
TIP31A	*ECG152
TIP32	TIP32A, *ECG153
TIP32A	*ECG153
TIP33	TIP33A
TIP33A	
TIP34	TIP34A
TIP34A	
TIP35	TIP35A
TIP35A	
TIP36	TIP36A
TIP36A	
TIS03	SEE 2N3702
TIS04	SEE 2N3703
-TIS18	2N743A, 2N744A, 2N2016, 2N2729, 2N3544, 2N4137, 2N4997, 2SC601, 2SC689, EN919, EN2369A, MM1941, MPM56507, MT1038, MT1038A, MT1039, MT1060, PET3001, TI562, TI563, TI564, *HEP56, *ECG161, *EN10, *DS-74, *SK3039, *GE-17
-TIS22	*GE-17, *EN10, *ECG123A, *HEP50
-TIS23	*HEP50, *ECG123A, *EN10, *GE-17
-TIS24	*GE-17, *EN10, *ECG108
TIS37	*HEP52, *ECG159, *SK3025, *GE-22
TIS38	2N722, 2N722A, 2N2394, 2N3039, 2N3121, 2N3703, 2N3829, 2N4964, 2N4971, 2N5365, 2N5448, BSW72, EN272, FT1746, GI-3703, MPS3703, MPS5616, MPSA70-RED, *ECG159, *TR-28
TIS39	SEE TIS39
-TIS44	2N706A, 2N706B, 2N706C, 2N708, 2N743A, 2N744A, 2N783, 2N784, 2N834, 2N835, 2N914, 2N2205, 2N2318, 2N2319, 2N2368, 2N2616, 2N2656, 2N2710, 2N2729, 2N3011, 2N3210, 2N3261, 2N3510, 2N3511, 2N3544, 2N3605A, 2N3606A, 2N3648, 2N4137, 2N4275, 2N4419, 2N4420, 2N4421, 2N4422, 2N4997, 2N5030, 2N5187, 2SC321, 2SC356, 2SC427, 2SC595, 2SC601, 2SC689, 40405, BC173B, GET708, GET914, GET3013, GET3014, GET3014, GET3014, GET3014, MM1941, MPM5006, MPM56507, MPM56511, MT1038, MT1038A, MT1039, MT1060, PET3001, PT2760, TI584, *TR-22, *ECG123A
-TIS45	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N221, 2N2481, 2N2501, 2N2539, 2N2710, 2N2845, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N3903, 2N3946, 2N4123, 2N4140, 2N4420, 2N4422, 2N4962, 2N5027, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, BSW82, GET708, GET914, GET221, GET2369, GET3013, GET3014, GET3014, GI-3641, GI-3642, MM3903, MPM56530, MPM56531, *ECG123A
-TIS46	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N221, 2N2481, 2N2501, 2N2539, 2N2710, 2N2845, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N3903, 2N3946, 2N4123, 2N4140, 2N4420, 2N4422, 2N4962, 2N5027, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, BSW82, GET708, GET914, GET221, GET2369, GET3013, GET3014, GET3014, GI-3641, GI-3642, MM3903, MPM56530, MPM56531, *ECG123A
-TIS47	GET3646, GI-3641, GI-3642, MM3903, MPM56530, MPM56531, *ECG123A
-TIS48	2N743A, 2N744A, 2N834, 2N835, 2N914, 2N916, 2N916A, 2N221, 2N2481, 2N2501, 2N2539, 2N2710, 2N2845, 2N3013, 2N3014, 2N3115, 2N3210, 2N3301, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N3903, 2N3946, 2N4123, 2N4140, 2N4420, 2N4422, 2N4962, 2N5027, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, BSW82, GET708, GET914, GET221, GET2369, GET3013, GET3014, GET3014, GI-3641, GI-3642, MM3903, MPM56530, MPM56531, *ECG123A
-TIS49	2N2369, 2N2369A, 2N3862, 2N4418, 2N5029, 2SC639, 2SC764, MPM52369, *ECG123A
-TIS50	2N744A, 2N2369, 2N2369A, 2N2710, 2N3511, 2N3648, 2N3862, 2N4137, 2N4418, 2N5029, 2SC639, 2SC764, MPM52369, *ECG123A
-TIS51	2N869A, 2N3576, *MP2894
-TIS51	2N744A, 2N2501, 2N2710, 2N3011, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3647, 2N3648, 2N4420, 2N4422, 2SC67, 2SC639, 2SC764, GET2369, GET3013, GET3014, GET3014, GET3014, *ECG123A, *TR-22
-TIS52	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2481, 2N2501, 2N2710, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N4420, 2N4422, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, GET708, GET914, GET2369, GET3013, GET3014, GET3014, MPM56531, *ECG123A
-TIS53	2N2894A, 2N3012, 2N3304, 2N3546, 2N5056, 2N5057, 2N5292, MPM3640, MPM507, MPM508, *ECG159
-TIS54	2N869A, 2N2894A, 2N3012, 2N3209, 2N3246, 2N3545, 2N3546, 2N3576, 2N5056, 2N5057, 2N5292, 2N5354, MM2894, MPM3640, MPM507, *ECG159, *TR-19
-TIS55	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2481, 2N2501, 2N2710, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N4420, 2N4422, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, GET708, GET914, GET2369, GET3013, GET3014, GET3014, MPM56530, MPM56531, *ECG123A
TIS56	2N917, 2N918, 2N3570, 2N4253, 2SC251, 2SC251A, 2SC252, 2SC253, 2SC602, BF232, MT1061, TIS57, *ECG123A
TIS57	2N917, 2N918, 2N3570, 2N4253, 2SC251, 2SC251A, 2SC252, 2SC253, 2SC602, BF232, MT1061, TIS56, *ECG123A
TIS62	2N744A, 2N2369A, 2N2615, 2N3862, 2N4137, 2N4418, 2N4956, 2N4997, 2N5029, 2SC601, 2SC601A, 2SC689, *HEP56, 2SC639, 2SC689, 2SC764, EN2369A, MPM510, MPM511, MT1060A, TSC3005, TIS87, *ECG108, *HEP56
TIS63	2N743A, 2N744A, 2N2016, 2N2729, 2N4137, 2N4997, 2SC601, 2SC689, EN918, EN2369A, MM1941, MPM56507, MT1038, MT1038A, MT1039, MT1060, PET3001, TI562, TI563, TI587, *HEP56, *ECG108
TIS64	2N743A, 2N744A, 2N2016, 2N2729, 2N4137, 2N4997, 2SC601, 2SC689, EN918, EN2369A, MM1941, MPM56507, MT1038, MT1038A, MT1039, MT1060, PET3001, TI562, TI563, TI587, *ECG108, *HEP56
-TIS71	*ECG123A
-TIS72	*ECG123A
-TIS73	2N5262
-TIS83	2N744A, 2N2369, 2N2369A, 2N2710, 2N3862, 2N4137, 2N4418, 2N5029, 2SC601, 2SC601A, 2SC639, 2SC689, 2SC764, MM2483, MPM52369, TIS87, *ECG123A
TIS84	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2481, 2N2501, 2N2710, 2N3013, 2N3014, 2N3210, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N4420, 2N4422, 2N5029, 2SC321, 2SC427, 2SC601, 2SC689, GET708, GET914, GET2369, GET3013, GET3014, GET3014, GET3014, MM2483, MPM5006, MPM52369, TIS87, *ECG108
-TIS85	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2481, 2N2501, 2N2710, 2N3009, 2N3013, 2N3014, 2N3210, 2N3261, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N4137, 2N4275, 2N4419, 2N4420, 2N4422, 2N5144, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, GET708, GET914, GET2369, GET3013, GET3014, GET3014, GET3014, MM2483, MPM5006, MPM52369, TIS87, *ECG108
-TIS86	2N708, 2N708A, 2N744A, 2N784A, 2N914, 2N916, 2N916A, 2N2481, 2N2501, 2N2710, 2N3009, 2N3013, 2N3014, 2N3210, 2N3261, 2N3510, 2N3511, 2N3605A, 2N3606A, 2N3647, 2N3648, 2N4137, 2N4275, 2N4419, 2N4420, 2N4422, 2N5029, 2SC67, 2SC68, 2SC321, 2SC639, 2SC764, GET708, GET914, GET2369, GET3013, GET3014, GET3014, GET3014, MM2483, MPM5006, MPM52369, TIS87, *ECG108
TIS87	
TIS92-BLU	TIS92-GRY, TIS92-VIO
TIS92-GRN	TIS92-BLU, TIS92-VIO

TRANSISTOR SUBSTITUTES

T1S92-GRY—TN624-1

To Replace	Substitute This Type
T1S92-GRY	T1S92-GRY
T1S92-VIO	T1S92-BLU, T1S92-GRN
T1S92-YEL	T1S93-GRN, T1S93-GRY, T1S93-VIO
T1S93-BLU	T1S93-BLU, T1S93-VIO, T1S93-YEL
T1S93-GRN	T1S93-VIO
T1S93-GRY	T1S93-BLU, T1S93-GRY
T1S93-VIO	T1S93-BLU, T1S93-GRN
T1S93-YEL	T1S97,*GE-10,*ECG123A
-T1S94	2N2222A, 2N2462, 2N2466, T1S98,*ECG123A,*GE-10
-T1S95	2N2461, 2N2465, 2N2516, 2N5582, T1S99
-T1S96	
T1S97	2N2222A, 2N2462, 2N2466
T1S98	2N2461, 2N2465, 2N2516, 2N5582
T1S99	*ECG154
T1S100	*ECG154
T1S101	2N708, 2N743A, 2N744A, 2N834, 2N834A, 2N914, 2N2368, 2N2710, 2N3210, 2N3261, 2N3510,
T1S102	2N3605A, 2N3606A, 2N3648, 2N4420, 2N4422, 2SC321, 2SC427, 2SC601, 2SC689, 40405, GET708,
	GET914, GET3013, GET3014, GET3646, MPM5006, MPS834, MPSH20, MPSH37, T1S84
	SEE 2N3551
	SEE 2N3552
T1X210	
T1X211	
-T1X316	T1-400, T1XM101,*ECG160,*TR-17
T1X317	SEE 2N3601
T1X318	SEE 2N3603
T1X880	SEE 2N3554
-T1X3016	*ECG160
-T1X3016A	*ECG160
-T1X3024	
-T1X3032	*HEP3
T1X3033	SEE 2N3418
T1X3034	SEE 2N3419
T1X3035	SEE 2N3420
T1X3036	SEE 2N3421
-T1XM01	2N2796, ASZ21, MM380,*HEP3,*TR-17,*GE-9,*ECG160
-T1XM02	2N2796, ASZ21, MM380,*ECG160,*TR-17,*HEP3
-T1XM03	2N741A,*HEP3,*TR-17,*ECG160
-T1XM04	2N2796, ASZ21, MM380,*ECG160,*TR-17,*HEP3
-T1XM05	MM380,*HEP3,*ECG160,*GE-9,*HF75
-T1XM06	MM380,*ECG160,*HEP3,*TR-17
-T1XM07	2N741A,*TR-17,*HEP3,*ECG160
-T1XM08	MM380,*ECG160,*HEP3636,*TR-17
-T1XM10	*ECG160
-T1XM11	2N838,*ECG160,*DS-41,*GE-9
-T1XM13	*ECG160
-T1XM14	2N2795, 2N3323, 2N3324, 2N3325, 2N3371,*ECG160,*HEP2
-T1XM15	2N2796, MM380,*HEP3,*TR-17,*ECG160
-T1XM16	2N2796, MM380,*ECG160,*TR-17,*HEP2
-T1XM17	2N838, 2N2795, 2N3371,*HEP3,*TR-17,*ECG160
-T1XM18	*ECG160
-T1XM19	*ECG160
T1XM101	*ECG160,*HEP3
-T1XM103	*ECG160
-T1XM104	*ECG160
-T1XM105	*ECG160
-T1XM106	*ECG160
-T1XM107	*ECG160
-T1XM108	*ECG160
-T1XM201	2N2955,*ECG160,*HEP3,*TR-17,*GE-9,*DS-41,*HF75,*SK3006
-T1XM202	2N2955,*SK3006,*HF35,*DS-41,*GE-9,*TR-17,*HEP3,*ECG160
-T1XM203	*ECG160,*HEP3,*TR-17,*GE-9,*DS-41,*HF75,*SK3006
-T1XM204	*SK3006,*HF35,*DS-41,*GE-9,*TR-17,*HEP3,*ECG160
-T1XM205	*ECG160,*HEP3,*TR-17,*GE-9,*DS-25,*HF35,*SK3006
-T1XM206	*SK3006,*HF75,*DS-41,*GE-9,*TR-17,*HEP3,*ECG160
-T1XM207	*ECG160,*TR-17,*GE-9,*HF75
-T1XP07	
-T1XS09	A3T3011, A3T929, FX914, FX2369A, FX3013, FX3014, FX4046, MMT2369, MMT3014,*EN10,*GE-17,
	*TR-21,*ECG108
-T1XS10	MMT3014,*ECG108,*GE-17,*EN10
-T1XS12	*SN80,*GE-20,*ECG123A
-T1XS13	*ECG123A,*GE-20,*SN80
-T1XS28	2N3862, 2SC689, MM2483,*EN10,*GE-17,*ECG108,*HEP56
-T1XS29	2N744A, 2N2369A, 2N3862, 2N4137, 2N4418, 2N5029, 2SC601, 2SC601N, 2SC639, 2SC689, 2SC764,
	EN2369A, MM2483, T1S87,*HEP56,*ECG108,*GE-17,*EN10
-T1XS30	2N744A, 2N2369A, 2N3862, 2N4137, 2N4418, 2N5029, 2SC601, 2SC601N, 2SC639, 2SC689, 2SC764,
	EN2369A, MM2483, T1S87,*EN10,*GE-17,*ECG108,*HEP56
-T1XS31	2N744A, 2N2369A, 2N3862, 2N4137, 2N4418, 2N5029, 2SC601, 2SC601N, 2SC639, 2SC689, 2SC764,
	EN2369A, MM2483, T1S87,*HEP56,*ECG108,*GE-17,*EN10
-T1XS39	2SC651
TN53	2N2219A, 2N4961,*SK3024,*GE-18,*ECG123A
TN54	2N4963, 2N5822, D33D30
TN55	SEE 2N4383
TN56	SEE 2N4384
TN57	SEE 2N4385
TN58	SEE 2N4386
TN59	2N2219, 2N2538, 2N3300,*ECG123A,*SK3024,*GE-18
TN60	2N2222, 2N2540, 2N3242A, 2N5818,*ECG123A,*HEP50
TN61	2N2537, 2N4960,*ECG123A,*GE-18,*SK3024
TN62	2N2539, 2N2897, 2N2900, 2N3643, 2N4962, 2N5816, 40458,*ECG123A,*HEP50
TN63	SE8041, SE8042, TN81,*ECG123A,*SK3024,*GE-18
TN64	SE8040,*ECG123A,*HEP50,*TR-22
TN79	BCY58, BCY59, BCY66
TN80	2N3242A
TN81	BSY63
TN237	TN61,*ECG123A,*GE-18,*SK3024
TN624	2N1973, 2N2849, 2N2849-1, 2N3107, 2N4896, 2N5154, SDT4454, TN624-1
TN624-1	2N1973, 2N2849, 2N2849-1, 2N3107, 2N4896, 2N5154, SDT4454, TN624

Q1 To Replace	Substitute This Type
TN624-2	2N2849-2
TN624-3	2N2849-3
TP3638	2N864, 2N869A, 2N5354, 2N5365, FT1746, GET3638, GET3638A, *TR-19
TP3638A	2N4034, 2N4035, 2N5244, 2N5355, 2N5366, 2N5447, MM3906
TP4274	2N2784, 2N2894, 2N3633, 2N3959, 2N3960, 2N5200, 2N5201, 2N5399, *TR-21
TP4275	2N2784, 2N3633, 2N3959, 2N3960, 2N5200, 2N5201, 2N5399, MPSH10, MPSH11, *TR-21
-TQ53	
-TQ53A	2N5821, 2N5823, D29E09, D29E10
-TQ54	
-TQ54A	
TQ55	SEE 2N4412
TQ56	SEE 2N4413
TQ57	SEE 2N4414
TQ58	SEE 2N4415
TQ59	2N2905, 2N2905A
-TQ59A	2N2905, 2N2905A, 2N4031, 2N4033, 2N4405
TQ60	2N2907, 2N2907A, 2N4028, 2N5819, D29E06
-TQ60A	2N2907, 2N2907A, 2N4028, 2N4029
TQ61	2N2801, 2N2904, 2N2904A, 2N3244, 2N3502, 2N3503, 2N3671, 2N4890, 40537
-TQ61A	2N2904, 2N2904A, 2N3503, 2N3671, 2N4890, 40537
TQ62	2N2838, 2N2906, 2N2906A, 2N3504, 2N3505, 2N3672, 2N5815, 2N5817, D29E04, D29E05, FT3644, FT3645
-TQ62A	2N2906, 2N2906A, 2N3505, 2N3672, 2N5821, 2N5823, D29E09, D29E10, FT3644
TQ63	2N5023, SE8541, SE8542, *TR-19, *ECG129
-TQ63A	2N2800, 2N3245, 2N3762, 2N5022, 2N5023, 2N5042, MM3726, SE8541, SE8542, *ECG129, *TR-19
TQ64	2N422, 2N5243, SE8540, *TR-19, *ECG129
-TQ64A	2N2837, 2N3764, 2N5243, SE8540, *ECG129, *TR-19
TR-01	REFER TO SECTION 2
TR-02	REFER TO SECTION 2
TR-03	REFER TO SECTION 2
TR-05	REFER TO SECTION 2
TR-06	REFER TO SECTION 2
TR-08	REFER TO SECTION 2
TR-09	REFER TO SECTION 2
TR-10	REFER TO SECTION 2
TR-11	REFER TO SECTION 2
TR-12	REFER TO SECTION 2
TR-14	REFER TO SECTION 2
TR-16	REFER TO SECTION 2
TR-17	REFER TO SECTION 2
TR-19	REFER TO SECTION 2
TR-20	REFER TO SECTION 2
TR-21	REFER TO SECTION 2
TR-22	REFER TO SECTION 2
TR-23	REFER TO SECTION 2
TR-24	REFER TO SECTION 2
TR-25	REFER TO SECTION 2
TR-26	REFER TO SECTION 2
TR-27	REFER TO SECTION 2
TR-28	REFER TO SECTION 2
TR-29	REFER TO SECTION 2
TR-30	REFER TO SECTION 2
-TRS301	*ECG154
-TRS350	
-TRS401	
-TRS450	
-TRS501	
-TRS550	
-TRS601	
-TRS701	
-TRS750	
-TRS801	
-TRS3011	*ECG154
-TRS3012	*ECG154
-TRS3014	
-TRS3015	
-TRS3501	
-TRS3502	
-TRS3504	
-TRS3505	
-TRS4001	
-TRS4002	
-TRS4004	
-TRS4005	
-TRS4501	
-TRS4502	
-TRS4504	
-TRS4505	
-TRS5011	
-TRS5012	
-TRS5014	
-TRS5501	
-TRS5502	
-TRS5504	
-TRS6011	
-TRS6012	
-TRS6014	
-TRS7014	
-TRS7015	
-TRS7504	
-TRS7505	
-TRS8014	
-TS173	2N235A, 2N235B, 2N236A, 2N236B, 2N285B, 2N399, 2N401, 2N419, 25B127, 25B426, AD130, AD149, AD150, ADY27, *HEP232, *TR-01, *GE-3, *PT40
-TS601	*HEP2, *AA1, *GE-1, *AT10N, *ECG100

TRANSISTOR SUBSTITUTES

TS602-XC156

Q1 To Replace	Substitute This Type
-TS602	2N1281, 2N1282, 2N1317, 2N1705, 2N1706, NKT231, NKT232, *ECG100, *AT10M, *GE-1, *AA1, *HEP2
-TS603	2N653, *HEP254, *AA1, *GE-2, *AT20M, *ECG102A
-TS604	2N598, 2N660, 2N661, 2N1282, 2N1316, 2N1317, 2N1706, 2N1707, 2N1998, 2S8201, *ECG102A, *AT20M, *GE-2, *AA1, *HEP254
-TS612	2N390, AD149, *PT40, *DS-503, *SK3009, *HEP230, *TR-01, *GE-3, *ECG104
-TS613	AD132, AD163, AUY20, AUY34, *ECG104, *GE-3, *TR-01, *HEP230, *PT40
-TS615	2N43, 2N43A, 2N43A*, 2N44, 2N44A, 2N381, 2N460, 2N524, 2N1446, 2N1447, 2N1614, *ECG160, *GE-1, *TR-05, *HEP2, *HF12M
-TS616	2N1495, 2N2099, 2N2100, 2N2381, *AT20M, *DS26, *SK3004, *HEP254, *GE-2, *ECG102A
-TS617	2N1495, 2N2100, 2N3883, NKT221, NKT228, *ECG102A, *GE-2, *HEP254, *SK3004, *DS26, *AT20M
-TS618	2S8201, *AT20M, *DS26, *SK3004, *HEP254, *GE-2, *ECG102A
-TS619	2N59, 2N59A, 2N60, 2N60A, 2N241A, 2N241A*, 2N321, 2N360, 2N396A, 2N4148, 2N414C, 2N654, 2N654*, 2N1175, 2N1175A, 2N1192, 2N1348, 2N1349, 2N1350, 2N1351, 2N1374, 2N1382, 2N1382*, 2N1383, 2N1415, 2N1478, 2N1681, 2N1706, 2N1707, 2N2375, 2N3883, 2S8189, 2S8496, NKT213, NKT216, SF. T125, SF. T125P, SF. T352, SF. T353, *ECG102A, *GE-2, *HEP254, *TR-05, *SK3004, *DS-26, *AT20M, *AA1
-TS620	2N59, 2N59A, 2N60, 2N60A, 2N241A, 2N241A*, 2N321, 2N360, 2N396A, 2N4148, 2N414C, 2N654, 2N654*, 2N1175, 2N1175A, 2N1192, 2N1348, 2N1349, 2N1350, 2N1351, 2N1374, 2N1382, 2N1382*, 2N1383, 2N1415, 2N1478, 2N1681, 2N1706, 2N1707, 2N2375, 2N3883, 2S8189, 2S8496, NKT213, NKT216, SF. T125, SF. T125P, SF. T352, SF. T353, *AA1, *AT20M, *DS25, *SK3008, *TR-05, *HEP2, *GE-2, *ECG160
-TS621	2N362, 2N397, 2N508A, 2N598, 2N599, 2N655, 2N655*, 2N1008A, 2N1193, 2N1316, 2N1354, 2N1355, 2N1356, 2N1357, 2N1376, 2N1381, 2N1998, 2N2428, 2N2429, 2N2706, 2S822, 2S8186, 2S8187, 2S8188, 2S8345, 2S8347, 2S8371, NKT211, NKT218, SF. T223, SF. T323, *ECG160, *GE-9, *HEP2, *TR-05, *SK3008, *DS25, *HE12M, *AA1
-TS630	2N608, 2N60C, 2N618, 2N61C, 2N525A, 2N526, 2N526A, 2N527, 2N586, 2N597, 2N650, 2N651, 2N651A, 2N1187, 2N1448, 2N1452, 2N1924, 2N1925, 2N2382, MA100, MA882, MA887, SF. T243, *HF12M, *TR-05, *HEP2, *GE-1, *ECG160
TV1000	REFER TO SECTION 2
TW135	*TR-19, *SP70, *ECG106
TZ81	2N5826, PET4002
TZ82	2N3242A, 2N5826, PET1002, PET2002, TN80, *ECG150
TZ551	2N3121, 2N3250, 2N5365, 2N5448, MM3905, *TR-19
TZ552	2N3251, 2N4034, 2N4035, 2N5244, 2N5366, 2N5447, MM3906
TZ553	2N5367
TZ554	2N3251, 2N4034, 2N4035, 2N5244, 2N5366, 2N5447, MM3906
TZ581	2N3251, 2N5382, 2N3966, 2N4035, 2N4359, 2N5244, 2N5366, 2N5367, MM3906, MM4048
TZ582	2N3251, 2N5382, 2N4034, 2N4035, 2N4359, 2N5244, 2N5366, 2N5447, MM3906, MM4048
V415	SEE 2N5762
V417	SEE 2N5761
V575	
V643	
-WX118UA	
-WX118UB	
-WX118UC	
-WX118XA	
-WX118XB	
-WX118XC	
-XA101	2N404, 2N579, 2N580, 2N580*, 2N1017, 2N1313, 2SA217, 2SA415, 2S8185, ASY27, SF. T227, *HEP3, *ECG160, *HF35, *DS25, *SK3005, *GE-9
-XA102	2N396A, 2N397, 2N414, 2N582, 2N584, 2N1171, 2N1307, 2N1357, 2SA210, 2S8186, 2S8188, *GE-9, *SK3005, *DS25, *HF35, *ECG160, *HEP3
-XA111	2N404, 2N579, 2N580, 2N580*, 2N1017, 2N1313, 2SA217, 2SA415, 2S8185, ASY27, SF. T227, *ECG160, *SK3005, *DS25, *HF35, *GE-9, *HEP3
-XA112	2N396A, 2N397, 2N414, 2N582, 2N584, 2N1171, 2N1307, 2N1357, 2SA210, 2S8186, 2S8188, *HEP3, *GE-9, *HF35, *DS25, *SK3005, *ECG160
-XA123	2N274, 2N2495, 2N2496, 2N2654, 2N3783, 2N3784, 2SA234, 2SA235, 2SA246, A1383, AF135, AF136, AF112, OC170, *ECG160, *SK3007, *DS41, *HF35, *HEP3, *TR-17, *GE-9
-XA124	2N274, 2N2495, 2N2496, 2N2654, 2N3783, 2N3784, 2SA234, 2SA235, 2SA246, A1383, AF135, AF136, AF112, OC170, *GE-9, *TR-17, *HEP3, *HF35, *DS41, *SK3007, *ECG160
-XA126	2N3783, 2N3784, *ECG160, *SK3007, *DS41, *HEP3, *TR-17, *GE-9
-XA131	2N3783, 2N3784, *GE-9, *HEP3, *DS-41, *SK3006, *ECG160
-XA141	2N586, 2N838, 2N2956, 2SA312, *ECG160
-XA142	2N586, 2N838, 2N2956, 2SA312, *ECG160
-XA143	2N586, 2N838, 2N2956, 2SA312, *ECG160
-XB102	2N381, 2N404A, 2N465, 2N1056, 2N1191, 2N1446, 2N1447, 2S867, SF. T226, *GE-2, *SK3004, *DS-26, *AT20M, *ECG102A, *HEP254, *TR-14
-XB103	2S843A, 2S856A, 2S875A, ACY23, ACY32, *TR-14, *HEP254, *ECG102A, *AT20M, *DS-26, *SK3004, *GE-2
-XB104	2N215*, 2S8185, CC73, SF. T322, *GE-9, *SK3004, *DS-26, *ECG102A, *HEP3, *TR-05
-XB112	2N381, 2N404A, 2N465, 2N1056, 2N1191, 2N1446, 2N1447, 2S867, SF. T226, *TR-14, *HEP254, *ECG102A, *DS-26, *SK3004, *AT20M, *GE-2
-XB113	2N382, 2N383, 2N466, 2N597, 2N1008A, 2N1125, 2N1192, 2N1348, 2N1349, 2N1350, 2N1351, 2N1375, 2N1377, 2N1449, 2S843A, 2S856A, 2S875A, 2S889A, 2S8200, 2S8200A, 2S8265, 2S8403, ACY23, ACY32, *GE-2, *AT20M, *SK3004, *DS-26, *ECG102A, *HEP254, *TR-14
-XC101	2S843A, 2S856A, 2S875A, ACY23, ACY32, *GE-2, *SK3004, *DS-26, *AT20M, *ECG102A, *HEP254
-XC121	2N597, 2N1125, 2N1375, 2N1377, 2S8201, 2S8403, *HEP254, *ECG102A, *AT20M, *DS-26, *SK3004, *GE-2, *XC121
XC131	
-XC141	2N1168, 2N1359, 2N1360, *GE-16, *SK3009, *DS-520, *HEC5121
-XC142	2N375, 2N618, 2N1159, *ECG121, *SK3009, *GE-16
-XC155	*GE-3, *DS-503, *PT40, *ECG104, *HEP230
-XC156	*HEP230, *ECG104, *PT40, *DS-503, *GE-3

General-Purpose Replacements

This section provides two lists of the general-purpose replacement types shown as substitutes in Section 1. In the first the left-hand column lists the transistors in alphanumeric order; a second column shows the polarity and material of each transistor. Here the first letter indicates whether it is an npn (N) or a pnp (P) type, and the second letter indicates germanium (G) or silicon (S). The next entry is the abbreviation for the supplier of the transistor. The last entry indicates the general-purpose application for the transistor. In general, the application requiring the highest frequency response is listed since this can be a limiting factor. A key to the abbreviations is provided at the end of this section.

The second listing is alphabetical by application. If there is no suggested substitute in the main listing, it may be possible to select a replacement from here on the basis of how the unit is used in the circuit.

ABBREVIATIONS

- | | |
|--|---|
| AA —Audio Amplifier | IF —IF Amplifier |
| AD —Audio Driver | IND —Industrial Applications |
| AO —Audio Output | INR —International Rectifier |
| APO —Audio Power Output | |
| CMO —Converter, Mixer, Oscillator | MOT —Motorola Semiconductor Products, Inc. |
| COL —Color Amplifier | N —NPN Transistor |
| DEL —Delco Radio Div., General Motors Corp. | P —PNP Transistor |
| FM —Used in FM Receivers | RCA —Radio Corporation of America, Electronic Components & Devices |
| FM OSC —FM Oscillator | RF —RF Amplifier |
| G —Germanium Transistor | RF OSC —RF Oscillator |
| GEC —General Electric Co., Semiconductor Products Dept. | RF PWR —RF Power Amplifier |
| GEN HP —General Purpose, High Power | S —Silicon Transistor |
| GEN LP —General Purpose, Low Power | SEM —Semitronics Corp. |
| GEN MP —General Purpose, Medium Power | SPL PUR —Special Purpose |
| | SW —General-Purpose Switch |
| HF —High-Frequency Amplifier | SYL —Sylvania Electric Products Inc., Semiconductor Div. |
| HF OSC —High-Frequency Oscillator | UHF —UHF Amplifier |
| HOR —Horizontal Amplifier | UHF OSC —UHF Oscillator |
| HOR OSC —Horizontal Oscillator | VERT —Vertical Amplifier |
| HOR OUT —Horizontal Output | VHF —VHF Amplifier |
| HS SW —High-Speed Switch | VID —Video Amplifier |
| | WTV —Workman Electronic Products, Inc. |

DESCRIPTION OF TYPES

Type	Polarity Ge/Si	Manufacturer	Application
AA1	PG	WTV	CMO, IF
AA2	NG	WTV	CMO, IF
AA3	PG	WTV	HF
AA4	PG	WTV	GEN MP
AA5	PG	WTV	GEN MP
AF4	NS	WTV	UHF OSC
AT10H	PG	SEM	AD, AO
AT10M	PG	SEM	AD, AO
AT10N	PG	SEM	AD, AO
AT20H	PG	SEM	AD, AO
AT20M	PG	SEM	AD, AO
AT20N	PG	SEM	AD, AO
AT30H	PG	SEM	AO
AT30M	PG	SEM	AO
AT30N	PG	SEM	AO
AT100H	PG	SEM	AA
AT100M	PG	SEM	AA
AT100N	PG	SEM	AA
DS25	PG	DEL	CMO, RF, IF
DS26	PG	DEL	AA
DS41	PG	DEL	FM RF
DS56	PG	DEL	FM
DS66	NS	DEL	FM
DS71	NS	DEL	RF
DS72	NS	DEL	CMO, IF
DS74	NS	DEL	FM OSC
DS76	NS	DEL	AA
DS81	NS	DEL	FM RF
DS83	PS	DEL	SPL PUR
DS501	PG	DEL	APD
DS503	PG	DEL	APD
DS509	NS	DEL	SPL PUR
DS520	PG	DEL	APD
DS525	PG	DEL	APD
EGC100	PG	SVL	CMO
EGC101	NG	SVL	CMO
EGC102	PG	SVL	AD, AO
EGC102A	PG	SVL	AD, APO
EGC103	NG	SVL	AD, AO
EGC103A	NG	SVL	AD, APO
EGC104	PG	SVL	APD
EGC105	PG	SVL	APD
EGC106	PS	SVL	CMO, FM
EGC107	NS	SVL	UHF, VHF
EGC108	NS	SVL	UHF, VHF
EGC121	PG	SVL	APD
EGC123	NS	SVL	AD, AU, VID
EGC123A	NS	SVL	AA, RF
EGC124	NS	SVL	APD
EGC126	PG	SVL	CMO, FM, VHF
EGC127	PG	SVL	HOR, APO
EGC128	NS	SVL	AD, VID
EGC129	PS	SVL	AD, VID
EGC130	NS	SVL	APD
EGC131	PG	SVL	APD
EGC152	NS	SVL	APD
EGC153	PS	SVL	APU
EGC154	NS	SVL	VID
EGC155	NS	SVL	AA
EGC157	NS	SVL	AA
EGC158	PG	SVL	AA
EGC159	PS	SVL	AD
EGC160	PG	SVL	RF
EGC161	NS	SVL	VID
EGC162	NS	SVL	VERT
EGC163	NS	SVL	HOR
EGC164	NS	SVL	VERT
EGC165	NS	SVL	HOR
EN10	NS	SEM	RF, IF
EN30	NS	SEM	AA
EN40	NS	SEM	AA, RF
EP20	PS	SEM	RF, IF
EP25	PS	SEM	AA
EP35	PS	SEM	AA, RF
GE-1	PG	GEC	CMO, RF, IF
GE-2	PG	GEC	AA
GE-3	PG	GEC	APD
GE-4	PG	GEC	APD
GE-5	NG	GEC	CMO, RF, IF
GE-6	NG	GEC	CMO, RF
GE-7	NG	GEC	IF
GE-8	NG	GEC	AA
GE-9	PG	GEC	CMO, RF, IF
GE-10	NS	GEC	CMO, RF, IF, AA
GE-11	NS	GEC	FM OSC, JHF, VHF
GE-12	NS	GEC	APD
GE-13MP	M.P.	GE-3	
GE-14	NS	GEC	APD
GE-15MP	M.P.	GE-14	
GE-16	PG	GEC	APD
GE-17	NS	GEC	FM GSC, VID
GE-18	NS	GEC	AA, APO
GE-19	NS	GEC	AA, APO
GE-20	NS	GEC	RF OSC, IF
GE-21	PS	GEC	RF OSC, IF
GE-22	PS	GEC	RF OSC, FM
GE-23	NS	GEC	APD
GE-24MP	M.P.	GE-23	

Type	Polarity Ge/Si	Manufacturer	Application
GE-25	PG	GEC	HOR OSC
GE-26	PS	GEC	APD
GE-27	NS	GEC	VID
GE-28	NS	GEC	APD
GE-29	PS	GEC	APD
GE-30	PG	GEC	APD
GE-31MP	PG	GEC	APD
GENR-6	S	GEC	IND
HEP1	PG	MOT	GEN LP, RF
HEP2	PG	MUT	RF
HEP3	PG	MOT	RF
HEP50	NS	MOT	GEN LP, RF
HEP51	PS	MOT	GEN LP, RF
HEP52	PS	MCT	GEN LP, RF
HEP53	NS	MOT	GEN LP, RF
HEP54	NS	MOT	RF
HEP55	NS	MOT	RF
HEP56	NS	MOT	UHF OSC
HEP57	PS	MOT	RF
HEP75	NS	MOT	RF PWR
HEP76	PS	MOT	RF PWR
HEP200	PG	MOT	GEN MP
HEP230	PG	MOT	GEN MP
HEP231	PG	MCT	GEN HP
HEP232	PG	MOT	GEN MP
HEP233	PG	MCT	GEN HP
HEP234	PG	MOT	APD
HEP235	PG	MOT	APD
HEP236	PG	MOT	APD
HEP237	PG	MOT	GEN HP
HEP238	PG	MCT	GEN LP
HEP239	PG	MOT	GEN LP
HEP240	NS	MOT	GEN MP
HEP241	NS	MOT	GEN MP
HEP242	PS	MOT	GEN MP
HEP243	NS	MOT	GEN MP
HEP244	NS	MOT	GEN MP
HEP245	NS	MOT	GEN MP
HEP246	PS	MOT	GEN MP
HEP247	NS	MOT	GEN HP
HEP248	PS	MOT	GEN HP
HEP250	PG	MOT	GEN LP
HEP251	PG	MOT	GEN LP
HEP252	PG	MOT	GEN LP
HEP253	PG	MOT	GEN LP
HEP254	PG	MOT	GEN LP
HEP623	PG	MOT	APD
HEP624	PG	MOT	APD
HEP625	PG	MOT	APD
HEP626	PG	MOT	APD
HEP627	PG	MOT	APD
HEP629	PG	MOT	APD
HEP629	PG	MOT	AA
HEP630	PG	MOT	AA
HEP631	PG	MOT	AA
HEP632	PG	MOT	AA
HEP633	PG	MOT	AA
HEP634	PG	MCT	AA
HEP635	PG	MOT	RF
HEP636	PG	MOT	RF
HEP637	PG	MOT	RF
HEP638	PG	MCT	GEN LP
HEP639	PG	MOT	GEN LP
HEP640	PS	MOT	GEN LP
HEP641	NG	MOT	AA, RF
HEP642	PG	MOT	APD
HEP643	PG	MOT	APD
HEP644	PG	MOT	GEN HP
HEP700	NS	MOT	APD
HEP701	NS	MOT	APD
HEP702	PS	MOT	APD
HEP703	NS	MOT	APD
HEP704	NS	MOT	APD
HEP705	PS	MOT	APD
HEP706	NS	MOT	APD
HEP707	NS	MCT	GEN HP
HEP708	PS	MUT	GEN LP
HEP709	NS	MOT	RF, JHF OSC
HEP710	PS	MOT	AA, RF
HEP712	NS	MOT	CMO, RF
HEP713	NS	MOT	CMO, RF
HEP714	NS	MOT	AA
HEP715	PS	MOT	AA, RF
HEP716	PS	MOT	GEN LP
HEP717	PS	MOT	AA
HEP718	NS	MOT	UHF, VHF
HEP719	NS	MOT	UHF, VHF
HEP720	NS	MOT	UHF, VHF
HEP721	NS	MOT	AA
HEP722	NS	MOT	AA
HEP723	NS	MCT	AA
HEP724	NS	MOT	AA
HEP725	NS	MOT	AA
HEP726	NS	MOT	AA
HEP727	NS	MOT	AA
HEP728	NS	MOT	AA
HEP729	NS	MOT	AA
HEP730	NS	MOT	AA

DESCRIPTION OF TYPES

Type	Polarity Ge/Si	Manufacturer	Application
HEP731	NS	MOT	AA
HEP732	NS	MOT	AA
HEP733	NS	MOT	AA
HEP734	NS	MOT	AA
HEP735	NS	MOT	AA
HEP736	NS	MOT	AA
HEP737	NS	MOT	AA
HEP738	NS	MOT	AA
HEP739	PS	MOT SPL	PUR
HEP740	NS	MOT	GEN HP
HEPG6001	PG	MOT	GEN HP
HEPS0001	NS	MOT	GEN LP
HEPS3001	NS	MOT	RF PWR
HEPS3005	NS	MOT	KF PWR
HEPS3006	NS	MOT	RF PWR
HEPS3007	NS	MOT	RF PWR
HEPS3008	NS	MOT	RF PWR
HF3H	PG	SEM	IF
HF3M	PG	SEM	IF
HF6H	PG	SEM	IF
HF6M	PG	SEM	IF
HF12H	PG	SEM	RF
HF12M	PG	SEM	RF
HF20H	PG	SEM	RF
HF20M	PG	SEM	RF
HF35	PG	SEM	RF
HF50	PG	SEM	RF, IF
HF75	PG	SEM	RF
HN100	NS	SEM	VERT
HN150	NS	SEM	VERT
HO300	PG	SEM	HOR AMP
IRTR-50	PG	INR	APD
IRTR-51	NS	INR	AA, RF
IRTR-52	PS	INR	AA, RF
IRTR-53	NS	INR	AA, RF
IRTR-54	PS	INR	AA, RF
IRTR-55	NS	INR	GEN MP
IRTR-56	PS	INR	GEN MP
IRTR-57	NS	INR	GEN MP
IRTR-58	PS	INR	GEN MP
IRTR-59	NS	INR	GEN MP
IRTR-60	NS	INR	GEN HP
IRTR-61	NS	INR	GEN HP
JR5	PG	SEM	AD
JR10	PG	SEM	IF
JR15	PG	SEM	AD
JR30	PG	SEM	CMO
JR30X	PG	SEM	CMO
JR100	PG	SEM	HF OSC
JR200	PG	SEM	HF OSC
NA20	NG	SEM	AD
NA30	NG	SEM	AA, AG
ND400	NS	SEM	HOR AMP
NR5	NG	SEM	IF
NR10	NG	SEM	RF OSC
NR700	NS	SEM	RF
PAR12	PG	SEM	GEN MP
PN26	NS	SEM	APD
PN66	NS	SEM	APD
PN350	NS	SEM	APD
PT6	PG	SEM	GEN LP
PT12	PG	SEM	GEN LP
PT25	PG	SEM	GEN MP
PT32	PG	SEM	APD
PT40	PG	SEM	GEN HP
PT50	PG	SEM	GEN MP
PT150	PG	SEM	GEN MP
PT201	PG	SEM	APD
PT250	PG	SEM	GEN MP
PT501	PG	SEM	GEN HP
PT515	PG	SEM	GEN HP
SK3003	PG	RCA	AA, AD/9V
SK3004	PG	RCA	AG, AQ/15V

Type	Polarity Ge/Si	Manufacturer	Application
SK3005	PG	RCA	CMO, RF, IF
SK3006	PG	RCA	FM
SK3007	PG	RCA	SW
SK3008	PG	RCA	CMO, RF, IF
SK3009	PG	RCA	APD
SK3010	NG	RCA	AA, AD
SK3011	NG	RCA	CMO, RF, IF
SK3012	PG	RCA	APD
SK3013	M.P.	SK3009	
SK3014	PG	RCA	AD
SK3015	M.P.	SK3014	
SK3018	NS	RCA	VHF AMP
SK3019	NS	RCA	UHF OSC
SK3020	NS	RCA	AA, AD
SK3021	NS	RCA	AD
SK3024	NS	RCA	AA
SK3025	PS	RCA	AA
SK3026	NS	RCA	GEN MP
SK3027	NS	RCA	GEN MP
SK3028	M.P.	SK3026	
SK3029	M.P.	SK3027	
SK3034	PG	RCA	HGR OUT
SK3035	PG	RCA	HOR OUT
SK3036	NS	RCA	APD
SK3037	M.P.	SK3036	
SK3038	NS	RCA	AA
SK3039	NS	RCA	UHF
SK3040	NS	RCA	VID
SK3041	NS	RCA	AA
SK3044	NS	RCA	COL
SK3045	NS	RCA	VID
SK3046	NS	RCA	RF OSC
SK3047	NS	RCA	RF
SK3048	NS	RCA	RF
SK3049	NS	RCA	RF
SK3052	PG	RCA	AD
SK3053	PS	RCA	AD, AD
SK3054	NS	RCA	AD, APO
SK3510	NS	RCA	IND
SK3511	NS	RCA	IND
SK3512	NS	RCA	IND
SK3513	PS	RCA	IND
SM60	NS	SEM	IF, RF
SN80	NS	SEM	AA
SP70	PS	SEM	AA
SP90	PS	SEM	IF, RF
TR-01	PG	INR	AD
TR-02	PG	INR	GEN MP
TR-03	PG	INR	AD
TR-05	PG	INR	AA
TR-06	PG	INR	AA
TR-08	NG	INR	CMO
TR-09	NG	INR	AA
TR-10	NG	INR	IF
TR-11	PG	INR	CMO
TR-12	PG	INR	CMO, HF
TR-14	PG	INR	AA, AD
TR-16	PG	INR	AA, SW
TR-17	PG	INR	HF
TR-19	PS	INR	HS SW, VHF
TR-20	PS	INR	HS SW, VHF
TR-21	NS	INR	HS SW, VHF
TR-22	NS	INR	HS SW, VHF
TR-23	NS	ENR	AA
TR-24	NS	INR	AA
TR-25	NS	INR	GEN LP
TR-26	NS	INR	GEN MP
TR-27	PG	INR	GEN MP
TR-28	PS	INR	GEN LP
TR-29	PS	INR	GEN MP
TR-30	PS	INR	AA
TV1000	PG	SEM	UHF

APPLICATIONS

Application	Type	Polarity Ge/Si	Manufacturer
AA	AT100H	PG	SEM
AA	AT100M	PG	SEM
AA	AT100N	PG	SEM
AA	DS26	PG	DEL
AA	DS76	NS	DEL
AA	ECG123A	NS	SYL
AA	ECG195	NS	SYL
AA	ECG157	NS	SYL
AA	ECG158	PG	SYL
AA	EN30	NS	SEM
AA	EN40	NS	SEM
AA	EP25	PS	SEM
AA	EP35	PS	SEM
AA	GE-2	PG	GEC
AA	GE-8	NG	GEC

Application	Type	Polarity Ge/Si	Manufacturer
AA	GE-10	NS	GEC
AA	GE-18	NS	GEC
AA	GE-19	NS	GEC
AA	HEP629	PG	MOT
AA	HEP630	PG	MOT
AA	HEP631	PG	MOT
AA	HEP632	PG	MOT
AA	HEP633	PG	MOT
AA	HEP634	PG	MOT
AA	HEP641	NG	MOT
AA	HEP710	PS	MOT
AA	HEP714	NS	MOT
AA	HEP715	PS	MOT
AA	HEP717	PS	MOT
AA	HEP721	NS	MOT

APPLICATIONS

Application	Type	Polarity Ge/Si	Manufacturer
AA	HEP722	NS	MGT
AA	HEP723	NS	MGT
AA	HEP724	NS	MGT
AA	HEP725	NS	MGT
AA	HEP726	NS	MGT
AA	HEP727	NS	MGT
AA	HEP728	NS	MGT
AA	HEP729	NS	MGT
AA	HEP730	NS	MGT
AA	HEP731	NS	MGT
AA	HEP732	NS	MGT
AA	HEP733	NS	MGT
AA	HEP734	NS	MGT
AA	HEP735	NS	MGT
AA	HEP736	NS	MGT
AA	HEP737	NS	MGT
AA	HEP738	NS	MGT
AA	IRTR-51	NS	INR
AA	IRTR-52	PS	INR
AA	IRTR-53	NS	INR
AA	IRTR-54	NS	INR
AA	NA30	NG	SEM
AA	SK3003	PG	RCA
AA	SK3010	NG	RCA
AA	SK3020	NS	RCA
AA	SK3024	NS	RCA
AA	SK3025	PS	RCA
AA	SK3038	NS	RCA
AA	SN80	NS	SEM
AA	SP70	PS	SEM
AA	TR-05	PG	INR
AA	TR-06	PG	INR
AA	TR-09	NG	INR
AA	TR-14	PG	INR
AA	TR-16	PG	INR
AA	TR-23	INR	APD
AA	TR-24	NS	INR
AA	TR-30	PS	INR
AD	AT10M	PG	SEM
AD	AT10M	PG	SEM
AD	AT10N	PG	SEM
AD	AT20M	PG	SEM
AD	AT20M	PG	SEM
AD	AT20N	PG	SEM
AD	ECG102	PG	SYL
AD	ECG102A	PG	SYL
AD	ECG103	NG	SYL
AD	ECG103A	NG	SYL
AD	ECG123	NS	SYL
AD	ECG128	NS	SYL
AD	ECG129	PS	SYL
AD	ECG159	PS	SYL
AD	JR5	PG	SEM
AD	NA20	NG	SEM
AD	SK3003	PG	RCA
AD	SK3004	PG	RCA
AD	SK3010	NG	RCA
AD	SK3030	NS	RCA
AD	SK3053	PS	RCA
AD	SK3054	NS	RCA
AD	TR-14	PG	INR
AD	AT10M	PG	SEM
AD	AT10M	PG	SEM
AC	AT10N	PG	SEM
AD	AT20M	PG	SEM
AD	AT20M	PG	SEM
AO	AT20N	PG	SEM
AO	AT30M	PG	SEM
AO	AT30M	PG	SEM
AC	AT30N	PG	SEM
AD	ECG102	PG	SYL
AD	ECG103	NG	SYL
AO	JR15	NS	SYL
AO	JR15	PS	SEM
AO	NA30	NG	SEM
AG	SK3004	PG	RCA
AO	SK3014	PG	RCA
AO	SK3021	NS	RCA
AD	SK3052	PG	RCA
AD	SK3053	NS	RCA
AO	TR-01	PG	INR
AO	TR-03	PG	INR
APD	DS501	PG	DEL
APD	DS503	PG	DEL
APD	DS520	PG	DEL
APD	DS525	PG	DEL
APD	ECG102A	PG	SYL
APD	ECG103A	NG	SYL
APD	ECG104	PG	SYL
APD	ECG105	PG	SYL
APD	ECG121	PG	SYL
APD	ECG124	NS	SYL
APD	ECG127	NS	SYL
APD	ECG130	NS	SYL
APD	ECG131	PG	SYL
APD	ECG152	NS	SYL
APD	ECG153	PS	SYL
APD	GE-3	PG	GEC

Application	Type	Polarity Ge/Si	Manufacturer
APD	GE-4	PG	GEC
APD	GE-12	NS	GEC
APD	GE-14	NS	GEC
APD	GE-16	PG	GEC
APD	GE-18	NS	GEC
APD	GE-19	NS	GEC
APD	GE-23	NS	GEC
APD	GE-26	PS	GEC
APD	GE-28	NS	GEC
APD	GE-29	PS	GEC
APD	GE-30	PG	GEC
APD	GE-31MP	PG	GEC
APD	HEP234	PG	MOT
APD	HEP235	PG	MOT
APD	HEP236	PG	MOT
APD	HEP237	PG	MOT
APD	HEP238	PG	MOT
APD	HEP239	PG	MOT
APD	HEP240	PG	MOT
APD	HEP241	PG	MOT
APD	HEP242	PG	MOT
APD	HEP243	PG	MOT
APD	HEP244	PG	MOT
APD	HEP245	PG	MOT
APD	HEP246	PG	MOT
APD	HEP247	PG	MOT
APD	HEP248	PS	MOT
APD	HEP249	PG	MOT
APD	HEP250	NS	MOT
APD	HEP251	PG	MOT
APD	HEP252	PG	MOT
APD	HEP253	PG	MOT
APD	HEP254	PG	MOT
APD	HEP255	PG	MOT
APD	HEP256	PG	MOT
APD	HEP257	PG	MOT
APD	HEP258	PG	MOT
APD	HEP259	PG	MOT
APD	HEP260	PG	MOT
APD	HEP261	PG	MOT
APD	HEP262	PG	MOT
APD	HEP263	PG	MOT
APD	HEP264	PG	MOT
APD	HEP265	PG	MOT
APD	HEP266	PG	MOT
APD	HEP267	PG	MOT
APD	HEP268	PG	MOT
APD	HEP269	PG	MOT
APD	HEP270	PS	MOT
APD	HEP271	NS	MOT
APD	HEP272	NS	MOT
APD	HEP273	NS	MOT
APD	HEP274	NS	MOT
APD	HEP275	NS	MOT
APD	HEP276	NS	MOT
APD	IRTR-50	PG	INR
APD	PN26	NS	SEM
APD	PN66	NS	SEM
APD	PN350	NS	SEM
APD	PT32	PG	SEM
APD	PT201	PG	SEM
APD	SK3009	PG	RCA
APD	SK3012	PG	RCA
APD	SK3036	NS	RCA
APD	SK3041	NS	RCA
APD	SK3054	NS	RCA
CMQ	AA1	PG	WTV
CMQ	AA2	PG	WTV
CMQ	DS25	PG	DEL
CMQ	UST2	NS	DEL
CMQ	ECG100	PG	SYL
CMQ	ECG101	NG	SYL
CMQ	ECG106	PS	SYL
CMQ	ECG126	PG	SYL
CMQ	GE-1	PG	GEC
CMQ	GE-5	NS	GEC
CMQ	GE-6	NG	GEC
CMQ	GE-9	PG	GEC
CMQ	GE-10	NS	GEC
CMQ	HEP712	NS	MOT
CMQ	HEP713	NS	MOT
CMQ	JR30	PG	SEM
CMQ	JR30K	PG	SEM
CMQ	SK3005	PG	RCA
CMQ	SK3008	PG	RCA
CMQ	SK3011	NG	RCA
CMQ	TR-08	NG	INR
CMQ	TR-11	PG	INR
CMQ	TR-12	PG	INR
COL	SK3044	NS	RCA
FM	DS66	PG	DEL
FM	DS66	NS	DEL
FM	ECG106	PS	SYL
FM	ECG126	PG	SYL
FM	GE-22	PS	GEC
FM	SK3006	PG	RCA
FM DSC	DS74	NS	DEL
FM DSC	GE-11	NS	GEC
FM DSC	GE-17	NS	GEC
FM RF	DS61	PG	DEL
FM RF	DS61	NS	DEL
GEN HP	AA5	PG	WTV
GEN HP	HEP231	PG	MOT
GEN HP	HEP233	PG	MOT
GEN HP	HEP237	PG	MOT
GEN HP	HEP247	NS	MOT
GEN HP	HEP248	PS	MOT
GEN HP	HEP644	PG	MOT
GEN HP	HEP707	NS	MOT
GEN HP	HEP740	NS	MOT
GEN HP	HEP66001	PG	MOT
GEN HP	IRTR-60	NS	INR
GEN HP	IRTR-61	NS	INR
GEN HP	PT40	PG	SEM
GEN HP	PT501	PG	SEM
GEN HP	PT515	PG	SEM
GEN LP	HEP1	PG	MOT
GEN LP	HEP50	NS	MOT
GEN LP	HEP51	PS	MOT
GEN LP	HEP52	NS	MOT
GEN LP	HEP53	NS	MOT
GEN LP	HEP238	PG	MOT
GEN LP	HEP239	PG	MOT

APPLICATIONS

Application	Type	Polarity Ge/Si	Manufacturer
GEN LP	HEP250	PG	MOT
GEN LP	HEP251	PG	MOT
GEN LP	HEP252	PG	MOT
GEN LP	HEP253	PG	MOT
GEN LP	HEP254	PG	MOT
GEN LP	HEP638	PG	MGT
GEN LP	HEP639	PG	MOT
GEN LP	HEP640	PS	MOT
GEN LP	HEP708	PS	MOT
GEN LP	HEP716	PS	MOT
GEN LP	HEP50001	PS	MOT
GEN LP	PT6	PG	SEM
GEN LP	PT12	PG	SEM
GEN LP	TR-25	NS	INR
GEN LP	TR-28	PS	INR
GEN MP	AA4	PG	WTV
GEN MP	HEP200	PG	MOT
GEN MP	HEP230	PG	MGT
GEN MP	HEP232	PG	MOT
GEN MP	HEP240	NS	MOT
GEN MP	HEP241	NS	MOT
GEN MP	HEP242	PS	MOT
GEN MP	HEP243	NS	MOT
GEN MP	HEP244	NS	MOT
GEN MP	HEP245	NS	MOT
GEN MP	HEP246	NS	MOT
GEN MP	IRTR-55	NS	INR
GEN MP	IRTR-56	PS	INR
GEN MP	IRTR-57	NS	INR
GEN MP	IRTR-58	PS	INR
GEN MP	IRTR-59	NS	INR
GEN MP	PAR12	SEM	SEM
GEN MP	PT50	PG	SEM
GEN MP	PT150	PG	SEM
GEN MP	PT250	PG	SEM
GEN MP	SK3026	NS	RCA
GEN MP	SK3027	NS	RCA
GEN MP	TR-02	PG	INR
GEN MP	TR-26	NS	INR
GEN MP	TR-27	PG	INR
GEN MP	TR-29	PS	INR
HF	AA3	PG	WTV
HF	TR-12	PG	INR
HF	TR-17	PG	INR
HF OSC	JR100	PG	SEM
HF OSC	JR200	PG	SEM
HDR	ECG127	PG	SEM
HDR	ECG163	NS	SYL
HDR	ECG165	NS	SYL
HDR	HD300	PG	SEM
HDR	ND400	NS	SEM
HDR OSC	GE-25	PG	GEC
HDR OUT	SK3034	PG	RCA
HDR OUT	SK3035	PG	RCA
HS SW	TR-19	PS	INR
HS SW	TR-20	PS	INR
HS SW	TR-21	NS	INR
HS SW	TR-22	NS	INR
IF	AA1	PG	WTV
IF	AA2	NG	WTV
IF	DS25	PG	DEL
IF	DS72	NS	DEL
IF	EN10	NS	SEM
IF	EP20	PS	SEM
IF	GE-1	PG	GEC
IF	GE-5	NG	GEC
IF	GE-7	NG	GEC
IF	GE-9	PG	GEC
IF	GE-10	NS	GEC
IF	GE-20	NS	GEC
IF	GE-21	PS	GEC
IF	HF3M	PG	SEM
IF	HF3M	PG	SEM
IF	HF6M	PG	SEM
IF	HF6M	PG	SEM
IF	HF50	PG	SEM
IF	JR10	PG	SEM
IF	NR5	NG	SEM
IF	SK3005	PG	RCA
IF	SK3008	PG	RCA
IF	SK3011	NG	RCA
IF	SN60	NS	SEM
IF	SP90	PS	SEM
IF	TR-10	NG	INR
IND	GEMR-6	S	GEC
IND	SK3510	NS	RCA
IND	SK3511	NS	RCA
IND	SK3512	NS	RCA
IND	SK3513	PS	RCA
RF	DS25	PG	DEL
RF OUT	DEL1	NS	DEL
RF	ECG123A	NS	SYL
RF	ECG160	PG	SYL
RF	EN10	NS	SEM
RF	EN40	NS	SEM
RF	EP20	PS	SEM
RF	EP35	PS	SEM

Application	Type	Polarity Ge/Si	Manufacturer
RF	GE-1	PG	GEC
RF	GE-5	NG	GEC
RF	GE-6	NG	GEC
RF	GE-9	PG	GEC
RF	GE-10	NS	GEC
RF	HEP1	PG	MOT
RF	HEP2	PG	MOT
RF	HEP3	PG	MOT
RF	HEP50	NS	MOT
RF	HEP51	MOT	PS
RF	HEP52	PS	MOT
RF	HEP53	NS	MOT
RF	HEP54	NS	MOT
RF	HEP55	NS	MOT
RF	HEP57	PS	MOT
RF	HEP635	PG	MOT
RF	HEP636	PG	MOT
RF	HEP637	PG	MOT
RF	HEP641	NG	MOT
RF	HEP709	NS	MOT
RF	HEP710	PS	MOT
RF	HEP712	NS	MOT
RF	HEP713	NS	MOT
RF	HEP715	PS	MOT
RF	HF12M	PG	SEM
RF	HF12M	PG	SEM
RF	HF20H	PG	SEM
RF	HF20M	PG	SEM
RF	HF35	PG	SEM
RF	HF50	PG	SEM
RF	HF75	PG	SEM
RF	IRTR-51	NS	INR
RF	IRTR-52	PS	INR
RF	IRTR-53	NS	INR
RF	IRTR-54	PS	INR
RF	NR700	NS	SEM
RF	SK3005	PG	RCA
RF	SK3008	PG	RCA
RF	SK3011	NG	RCA
RF	SK3041	NS	RCA
RF	SK3048	NS	RCA
RF	SK3049	NS	RCA
RF	SN60	NS	SEM
RF	SP90	PS	SEM
RF OSC	GE-20	NS	GEC
RF OSC	GE-21	PS	GEC
RF OSC	GE-22	PG	GEC
RF OSC	NR10	NG	SEM
RF OSC	SK3046	NS	RCA
RF PWR	HEP75	NS	MOT
RF PWR	HEP76	PS	MOT
RF PWR	HEP53001	NS	MOT
RF PWR	HEP53005	NS	MOT
RF PWR	HEP53006	NS	MOT
RF PWR	HEP53007	NS	MOT
RF PWR	HEP53008	NS	MOT
SPL PUR	DS83	PS	DEL
SPL PUR	DS509	NS	DEL
SPL PUR	HEP739	PS	MOT
SW	SK3007	PG	RCA
SW	TR-16	PG	INR
UHF	ECG107	NS	SYL
UHF	ECG108	NS	SYL
UHF	GE-11	NS	GEC
UHF	HEP718	NS	MOT
UHF	HEP719	NS	MOT
UHF	HEP720	NS	MOT
UHF	SK3039	NS	RCA
UHF	TV1000	PG	SEM
UHF OSC	AF4	NS	WTV
UHF OSC	HEP56	NS	MOT
UHF OSC	HEP709	NS	MOT
UHF OSC	SK3019	NS	RCA
UHF OSC	ECG162	NS	SYL
VERT	ECG164	NS	SYL
VERT	HN100	NS	SEM
VERT	HN150	NS	SEM
VHF	ECG107	NS	SYL
VHF	ECG108	NS	SYL
VHF	ECG126	PG	SYL
VHF	GE-11	NS	GEC
VHF	HEP718	NS	MOT
VHF	HEP719	NS	MOT
VHF	HEP720	NS	MOT
VHF	TR-19	PS	INR
VHF	TR-20	PS	INR
VHF	TR-21	NS	INR
VHF	TR-22	NS	INR
VHF AMP	SK3018	NS	RCA
VID	ECG123	NS	SYL
VID	ECG128	NS	SYL
VID	ECG129	PS	SYL
VID	ECG154	NS	SYL
VID	ECG161	NS	SYL
VID	GE-17	NS	GEC
VID	GE-27	NS	GEC
VID	SK3040	NS	RCA
VID	SK3045	NS	RCA