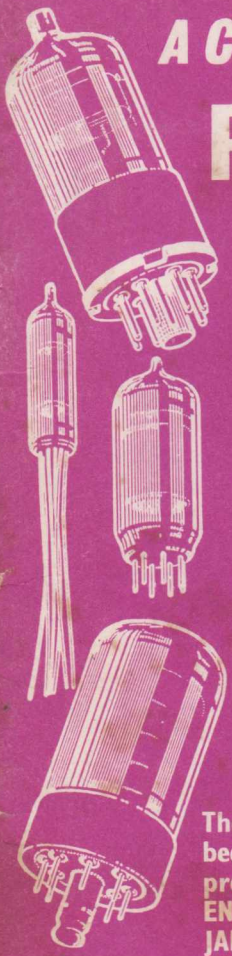


A Comprehensive INTERNATIONAL EDITION

RADIO VALVE GUIDE

BOOK 5

BY

B. B. BABANI

CHARACTERISTICS AND BASE CONNECTIONS ARE GIVEN FOR

All receiving valves issued since 1960—including English, American, European, USSR and Japanese : miniatures, sub-miniatures, and Nuvistors.

All the modern television C.R. Tubes for COLOUR and Black & White TV Reception.

Voltage and current stabilisers, thyratrons, rectifiers, Tuning Indicators, etc.

* * *

Full operating data with voltages and complete diagrams of all valve bases are shown on the same page.

The unique features of Books 1, 2, 3 and 4 have been retained : more than 1,350 valves not previously shown are presented, including all ENGLISH, EUROPEAN, AMERICAN, USSR and JAPANESE RECEIVING VALVES ISSUED SINCE JANUARY 1960

No. 178 BERNARDS RADIO MANUALS

40p

A COMPREHENSIVE

RADIO VALVE GUIDE

BOOK 5

BY

B. B. BABANI

LONDON: BERNARDS (PUBLISHERS) LIMITED

FIRST PUBLISHED MARCH 1963

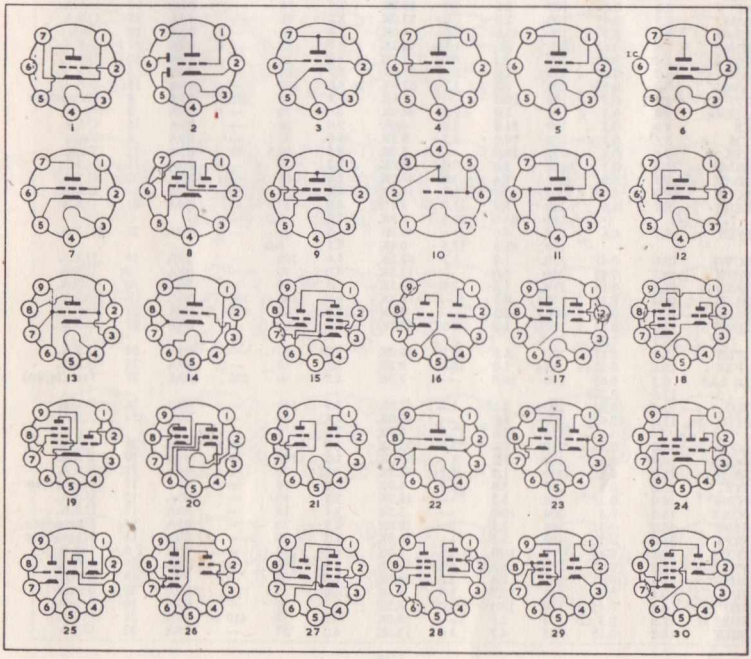
Printed by V. Cooper & Partners Ltd., 6, Flitcroft Street, London, W.C.2
for Bernards (Publishers) Ltd., The Grampians, Western Gate, London, W.6

CONTENTS

TRIODE AMPLIFIERS

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
2ER5	1.3	0.6	200	10.0	1.2	7.8K	10.5	80	—	B7G	1	U.S.A.
2ES5	2.35	0.6	200	10.0	1.0	8.0K	9.4	75	—	B7G	1	U.S.A.
2FH5	2.35	0.6	135	11.0	1.0	5.6K	9.0	50	—	B7G	1	U.S.A.
2FQ5	2.3	0.6	135	11.5	1.2	5.5K	11.0	60	—	B7G	1	U.S.A.
2FQ5A	2.3	0.6	135	11.0	1.2	6.3K	12.0	74	—	B7G	1	U.S.A.
2FY5	2.4	0.6	135	11.0	1.0	5.4K	13.0	70	—	B7G	1	U.S.A.
2GK5	2.3	0.6	135	11.0	1.2	5.4K	15.0	78	—	B7G	1	U.S.A.
3BF6	3.15	0.6	250	9.5	9.0	8.5K	1.9	16	—	B7G	1	U.S.A.
3ES5	3.0	0.45	200	10.0	1.0	8.0K	9.4	75	—	B7G	1	U.S.A.
3FH5	3.0	0.45	135	11.0	1.0	5.6K	9.0	50	—	B7G	1	U.S.A.
3FQ5	2.8	0.45	135	11.0	1.2	5.5K	11.0	60	—	B7G	1	U.S.A.
3FQ5A	2.8	0.45	135	11.0	1.2	6.3K	12.0	74	—	B7G	1	U.S.A.
3FY5	3.1	0.45	135	11.0	1.0	5.4K	13.0	70	—	B7G	1	U.S.A.
3GK5	2.8	0.45	135	11.0	1.2	5.4K	15.0	78	—	B7G	1	U.S.A.
4AV6	4.2	0.45	250	1.2	2.0	62.5K	1.6	100	—	B7G	2	U.S.A.
4ER5	4.2	0.25	200	10.0	1.2	7.8K	10.5	80	—	B7G	1	U.S.A.
4T1	4.7	0.3	80	16.0	—	2.27K	6.6	15	150	B7G	3	Magnadyne
5M–HH3	4.7	0.6	100	11.0	1.0	5.0K	7.5	38	—	B7G	8	Toshiba
6ES5	6.3	0.23	200	10.0	1.0	8.0K	9.4	75	—	B7G	1	U.S.A.
6FH5	6.3	0.2	135	11.0	1.0	5.6K	9.0	50	—	B7G	1	U.S.A.
6FQ5	6.3	0.22	135	11.5	1.2	5.5K	11.0	60	—	B7G	1	U.S.A.
6FQ5A	6.3	0.22	135	11.0	1.2	6.3K	12.0	74	—	B7G	1	U.S.A.
6FY5	6.3	0.23	135	11.0	1.0	5.4K	13.0	70	—	B7G	1	U.S.A.
6GK5	6.3	0.22	135	11.0	1.2	5.4K	15.0	78	—	B7G	1	U.S.A.
6M–HH3	6.3	0.45	100	11.0	1.0	5.0K	7.5	38	—	B7G	8	Toshiba
6M–L2	6.3	0.175	135	14.0	4.5	3.6K	5.0	18	—	B7G	9	Ten (Japan)
6M–L4	6.3	0.175	100	17.0	—	2.1K	6.5	13.5	10K	B7G	3	Toshiba
6T1	6.3	0.225	80	16.0	—	2.27K	6.6	15	150	B7G	3	Magnadyne
12DT1	12.6	0.15	250	1.0	3.0	58.0K	1.2	70	—	B7G	2	Magnadyne
12DT2	12.6	0.15	250	1.1	2.0	62.5K	1.6	100	—	B7G	2	Magnadyne
12ES5	12.6	0.115	200	10.0	1.0	8.0K	9.4	75	—	B7G	1	U.S.A.
18GE6	18.0	0.1	100	1.0	1.0	40.0K	1.7	70	—	B7G	2	U.S.A.
6664	6.3	0.15	250	10.0	12.0	10.9K	5.5	60	—	B7G	4	U.S.A.
7382	6.3	0.3	250	1.2	2.0	62.5K	1.6	100	—	B7G	5	U.S.A.
7738	6.3	0.225	500	12.0	—	8.8K	9.9	80	—	B7G	3	U.S.A.
A1714	6.3	0.49	150	10.0	—	5.5K	8.5	42	—	B7G	6	G.E.C.
A2688	6.3	0.37	180	15.5	—	3.3K	14.0	52	68	B7G	7	G.E.C.
A2913	6.3	0.37	180	15.5	—	3.3K	14.0	52	68	B7G	7	G.E.C.
CK1216	6.3	0.3	100	5.0	—	7.95K	3.4	27	—	B7G	8	U.S.A.
E7013	6.3	0.15	250	10.0	2.0	10.5K	5.5	60	—	B7G	4	E. European
E7014	9.45	0.1	250	10.0	2.0	10.5K	5.5	60	—	B7G	4	E. European
E7060	1.4	0.025	90	2.1	2.5	14.0K	1.0	14	—	B7G	10	E. European
E7143	3.1	0.3	200	11.5	1.0	10.0K	6.7	67	—	B7G	7	E. European
EC96	6.3	0.15	200	11.5	1.0	10.0K	6.7	67	—	B7G	7	European
EC98	6.3	0.4	150	13.5	—	3.7K	13.5	50	100	B7G	11	European
M8248	6.3	0.4	150	13.5	—	3.7K	13.5	50	100	B7G	11	European
PC93	4.7	0.3	100	16.0	4.0	1.9K	8.0	15	—	B7G	3	European
PC96	3.1	0.3	200	11.5	1.0	10.0K	6.7	67	—	B7G	7	European
PC97	4.5	0.3	135	11.0	1.0	5.4K	13.0	70	—	B7G	12	European
UC96	9.3	0.1	200	11.5	1.0	10.0K	6.7	67	—	B7G	7	European
XC95	1.8	0.6	200	10.0	1.2	7.8K	10.5	80	—	B7G	12	Philips (B)
YC95	2.2	0.45	200	10.0	1.2	7.8K	10.5	80	—	B7G	12	Philips (B)
1C12П	1.2	0.03	90	2.2	—	—	0.42	—	—	B7G	10	U.S.S.R.
6H3П	6.3	0.45	100	8.5	0.85	7.1K	5.3	38	—	B7G	8	U.S.S.R.
2DL4	2.0	0.6	160	12.5	—	4.7K	14.0	65	100	B9A	13	U.S.A.
3A/167M	6.3	0.45	150	40.2	10.0	0.97K	47.0	45	—	B9A	14	S.T.C.
3DL4	2.6	0.45	160	12.5	—	4.7K	14.0	65	100	B9A	13	U.S.A.
4BL8	4.5	0.6	100	14.0	2.0	4.0K	5.0	20	—	B9A	15	U.S.A.
4DL4	4.0	0.3	160	12.5	—	4.7K	14.0	65	100	B9A	13	U.S.A.
4ES8	3.8	0.6	90	15.0	1.2	2.7K	12.5	34	—	B9A	16	U.S.A.
4FC7	3.8	0.6	90	15.0	1.2	2.9K	12.3	36	—	B9A	17	U.S.A.
4R–HH2	4.2	0.6	90	8.5	1.0	4.5K	8.0	36	—	B9A	16	Toshiba
4R–HH8	4.2	0.6	110	16.0	1.0	2.8K	16.0	38	81	B9A	16	Ten (Japan)
4R–HH9	4.2	0.6	90	16.0	—	2.4K	16.0	45	—	B9A	16	Ten (Japan)
5ES8	5.1	0.45	90	15.0	1.2	2.7K	12.5	34	—	B9A	16	U.S.A.
5EU8	4.7	0.6	150	18.0	—	5.0K	8.5	42.5	56	B9A	18	U.S.A.
5FC7	5.1	0.45	90	15.0	1.2	2.9K	12.3	36	—	B9A	17	U.S.A.
5FG7	4.7	0.45	125	13.0	1.0	5.7K	7.5	43	—	B9A	19	U.S.A.
6CC43	6.3	0.435	250	10.0	2.3	10.0K	5.9	59	—	B9A	16	Tesla
6CT4	6.3	0.3	130	16.0	1.0	4.0K	15.0	60	—	B9A	22	U.S.A.
6DL4	6.3	0.17	160	12.5	—	4.7K	14.0	65	100	B9A	13	U.S.A.
6EU7	6.3	0.3	250	1.2	2.0	62.5K	1.6	100	—	B9A	20	U.S.A.

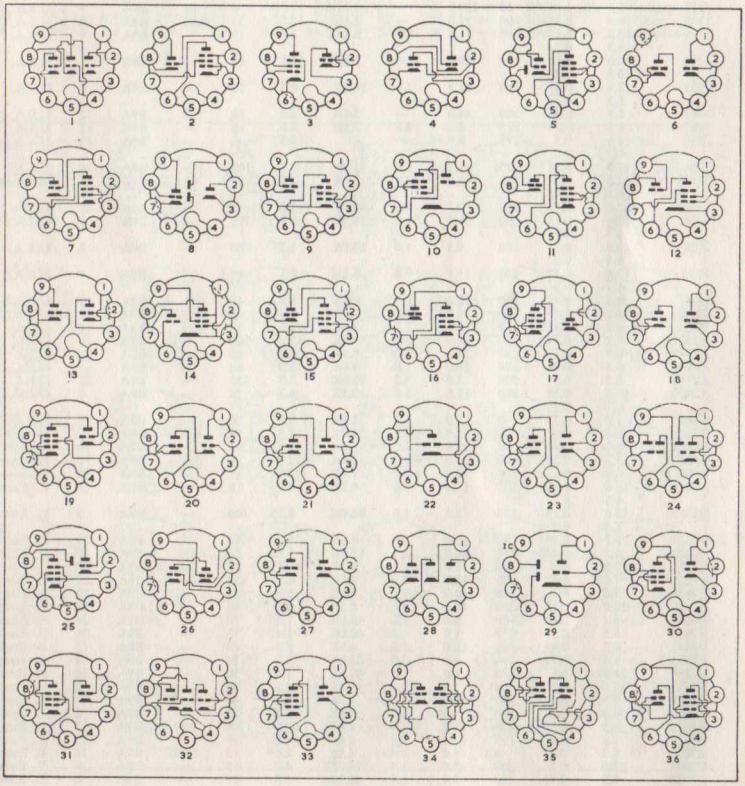
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
6EU8	6.3	0.45	150	18.0	—	5.0K	8.5	42.5	56	B9A	18	U.S.A.
6EV7	6.3	0.6	250	9.2	2.0	11.8K	5.2	60	—	B9A	21	U.S.A.
6EW7	6.3	0.9	250	5.5	11.0	8.75K	2.0	17.5	—	B9A	23	U.S.A.
			150	45.0	17.5	0.8K	7.5	6.0				
6FC7	6.3	0.365	90	15.0	1.2	2.9K	12.3	36	—	B9A	17	U.S.A.
6FD7	6.3	0.925	250	6.0	—	40.0K	1.6	64	—	B9A	23	U.S.A.
			150	45.0	17.5	0.8K	7.5	6				
6FG7	6.3	0.45	125	13.0	1.0	5.7K	7.5	43	—	B9A	19	U.S.A.
6FH8	6.3	0.45	100	7.7	1.0	7.4K	5.4	40	—	B9A	24	U.S.A.
6FM8	6.3	0.45	250	1.0	3.0	58.0K	1.2	70	—	B9A	25	U.S.A.
6FQ7	6.3	0.6	250	9.0	8.0	7.7K	2.6	20	—	B9A	21	U.S.A.
6GE8	6.3	0.9	150	35.0	21.0	1.08K	5.0	5.4	—	B9A	26	U.S.A.
6GJ8	6.3	0.6	125	13.5	—	5.0K	8.5	40	—	B9A	27	U.S.A.
6GM8	6.3	0.33	6.3	0.9	0.4	4.5K	2.6	14	100K	B9A	16	U.S.A.
6GN8	6.3	0.75	250	2.0	2.0	37.0K	2.7	100	—	B9A	28	U.S.A.
6GV8	6.3	0.9	100	5.0	0.6	8.0K	6.5	50	—	B9A	29	U.S.A.
6GW8	6.3	0.7	250	1.2	1.7	62.5K	1.6	100	—	B9A	30	U.S.A.



TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
6GY8	6.3	0.45	200	4.5	—	14.0K	4.5	63	—	B9A	1	U.S.A.
6HC8	6.3	1.2	250	1.4	3.0	34.0K	2.0	68	—	B9A	2	U.S.A.
6HF8	6.3	0.75	250	4.0	—	17.5K	4.0	70	—	B9A	3	U.S.A.
6HG8	6.3	0.385	100	14.0	3.0	2.8K	6.0	17	—	B9A	14	U.S.A.
6HK8	6.3	0.4	90	8.5	1.0	4.5K	8.0	36	—	B9A	6	Toshiba
6R–DHV1	6.3	0.48	250	1.2	2.0	62.5K	1.6	100	—	B9A	5	Toshiba
6R–HH2	6.3	0.4	90	8.5	1.0	4.5K	8.0	36	—	B9A	6	Ten (Japan)
6R–HH8	6.3	0.4	110	16.0	—	2.8K	16.0	45	—	B9A	6	Ten (Japan)
6R–HH9	6.3	0.4	90	16.0	—	2.4K	16.0	38	81	B9A	6	Ten (Japan)
6T24	6.3	0.6	150	17.0	2.0	4.0K	7.0	28	—	B9A	4	Magnadyne
6T26	6.3	0.45	250	10.0	2.3	9.5K	6.0	57	—	B9A	6	Magnadyne
6T27	6.3	0.4	150	10.0	—	5.6K	6.8	38	220	B9A	6	Magnadyne
6TD32	6.3	0.35	250	1.0	3.0	58.0K	1.2	70	—	B9A	8	Magnadyne
6TD33	6.3	0.35	250	2.2	3.0	25.0K	2.1	52.5	—	B9A	8	Magnadyne
6TD34	6.3	0.3	250	2.2	3.0	25.0K	2.1	52.5	—	B9A	8	Magnadyne
6TP1	6.3	0.45	150	18.0	—	5.0K	8.5	42.5	56	B9A	9	Magnadyne
6TP3	6.3	0.6	100	4.0	2.0	10.0K	2.0	20	—	B9A	10	Magnadyne
6TP4	6.3	0.45	150	18.0	—	5.0K	8.5	42.5	56	B9A	11	Magnadyne
6TP5	6.3	0.6	100	2.2	—	50.0K	1.3	65	—	B9A	12	Magnadyne
7CE40	7.0	0.3	90	12.0	1.5	4.0K	6.0	24	—	B9A	13	Tesla
7EK7	7.0	0.3	200	15.0	1.23	3.1K	9.0	28	—	B9A	13	U.S.A.
7ES8	7.2	0.3	90	15.0	1.2	2.7K	12.5	34	—	B9A	6	U.S.A.
7FC7	7.5	0.3	90	15.0	1.2	2.9K	12.3	36	—	B9A	13	U.S.A.
7HG8	7.9	0.3	100	14.0	3.0	2.8K	5.5	16	—	B9A	14	U.S.A.
8B8	8.0	0.6	100	3.5	0.0	28.0K	2.5	70	—	B9A	15	U.S.A.
8BM8	7.9	0.45	100	3.0	0.0	33.0K	2.2	70	—	B9A	15	U.S.A.
8CF40	9.0	0.3	100	14.0	2.0	4.0K	5.0	20	—	B9A	16	Tesla
8DX8	7.5	0.6	200	3.0	1.7	16.2K	4.0	65	—	B9A	17	U.S.A.
8FQ7	8.4	0.45	200	9.0	8.0	7.7K	2.6	20	—	B9A	18	U.S.A.
8GN8	8.0	0.6	250	2.0	2.0	37.0K	2.7	100	—	B9A	3	U.S.A.
8GW8	8.0	0.55	250	1.2	1.7	62.5K	1.6	100	—	B9A	19	U.S.A.
8T27	8.4	0.3	150	10.0	—	5.6K	6.8	38	220	B9A	6	Magnadyne
9ABC40	9.5	0.3	170	1.0	1.85	48.0K	1.45	70	—	B9A	8	Tesla
9C8	9.0	0.3	100	14.0	2.0	4.0K	5.0	20	—	B9A	16	U.S.A.
9T26	9.5	0.3	250	10.0	2.3	9.5K	6.0	57	—	B9A	6	Tesla
9TP4	9.4	0.3	150	18.0	—	5.0K	8.5	42.5	56	B9A	11	Tesla
10BM8	10.0	0.5	100	3.0	0.0	33.0K	2.2	70	—	B9A	15	U.S.A.
10DR7	9.7	0.6	250	1.4	3.0	40.0K	1.6	68	—	B9A	20	U.S.A.
10DX8	10.0	0.45	200	3.0	1.7	16.2K	4.0	65	—	B9A	17	U.S.A.
10EW7	9.7	0.6	250	5.5	11.0	8.75K	2.0	17.5	—	B9A	21	U.S.A.
			150	45.0	17.5	0.8K	7.5	6.0				
10FD7	9.7	0.6	250	6.0	—	40.0K	1.6	64	—	B9A	21	U.S.A.
			150	45.0	17.5	0.8K	7.5	6.0				
10GW8	10.0	0.45	250	1.2	1.7	62.5K	1.6	100	—	B9A	19	U.S.A.
10HF8	10.5	0.45	250	4.0	—	17.5K	4.0	70	—	B9A	3	U.S.A.
12AK7	12.6	0.15	250	1.2	2.0	62.5K	1.6	100	—	B9A	6	U.S.A.
12AU8	12.6	0.3	150	8.5	—	8.2K	4.9	40	150	B9A	3	U.S.A.
12DL4	12.0	0.1	160	12.5	—	4.7K	14.0	65	100	B9A	22	U.S.A.
12DM7	12.6	0.13	250	1.2	2.0	62.5K	1.6	100	—	B9A	23	U.S.A.
	6.3	0.26										
12FQ8	12.6	0.15	250	1.5	1.5	76.0K	1.25	95	—	B9A	24	U.S.A.
12FR8	12.6	0.32	12.6	1.0	0.6	8.2K	1.2	10	—	B9A	25	U.S.A.
12R–LL3	6.3	0.45	150	10.0	—	5.5K	5.5	30	230	B9A	27	Ten (Japan)
	12.6	0.225										
13D7	6.3	0.32	250	2.25	1.2	42.0K	3.3	140	—	B9A	26	Brimar
13FD7	13.0	0.45	250	6.0	—	40.0K	1.6	64	—	B9A	21	U.S.A.
			150	45.0	17.5	0.8K	7.5	6				
14GT8	14.0	0.15	250	0.7	3.0	72.0K	1.0	72	—	B9A	28	U.S.A.
14GW8	14.7	0.3	250	1.2	1.7	62.5K	1.6	100	—	B9A	19	U.S.A.
15BD7A	15.0	0.1	170	1.5	1.5	42.0K	1.65	70	—	B9A	29	U.S.A.
15TP7	15.0	0.3	200	3.0	1.7	4.0K	4.0	16	—	B9A	17	Magnadyne
16CN8	16.0	0.28	100	3.3	—	16.7K	3.6	60	—	B9A	15	U.S.A.
16GK8	16.0	0.3	200	10.0	—	5.5K	3.4	18	—	B9A	15	U.S.A.
16TP6	16.0	0.3	100	3.5	—	28.0K	2.5	70	—	B9A	14	Magnadyne
16TP8	16.0	0.3	100	3.5	—	28.0K	2.5	70	—	B9A	14	Magnadyne
17EW8	17.5	0.15	170	10.0	1.5	8.0K	6.2	50	—	B9A	6	U.S.A.
17GW8	16.8	0.45	250	1.2	1.7	62.5K	1.6	100	—	B9A	19	U.S.A.
17HC8	16.8	0.45	250	1.4	3.0	34.0K	2.0	68	—	B9A	14	U.S.A.
18D2	9.45	0.3	150	12.5	1.8	5.5K	10.0	55	—	B9A	30	Brimar
18D3	6.3	0.45	150	18.0	1.0	4.5K	8.5	40	—	B9A	16	Brimar
18HB8	18.0	0.3	115	2.5	—	19.0K	3.9	74	410	B9A	31	U.S.A.
19EZ8	18.9	0.15	125	4.2	4.0	13.6K	4.2	57	—	B9A	32	U.S.A.

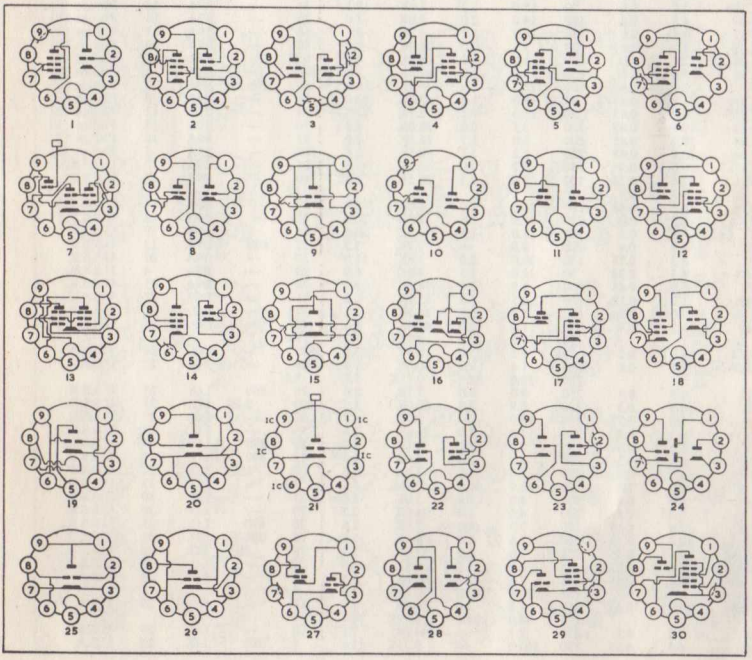
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
19GV8	18.9	0.3	100	5.0	0.6	8.0K	6.5	50	—	B9A	33	U.S.A.
19R–LL1	19.0	0.15	120	8.5	—	5.5K	5.5	30	180	B9A	34	Ten (Japan)
19R–LL2	19.0	0.1	250	10.5	8.5	7.7K	2.2	17.5	—	B9A	23	Ten (Japan)
20EZ7	20.0	0.1	150	—	1.0	62.0K	1.6	100	—	B9A	35	U.S.A.
	10.0	0.2										
20R–DHV1	20.0	0.15	250	1.2	2.0	62.5K	1.6	100	—	B9A	5	Toshiba
21ES8	21.0	0.1	90	15.0	1.2	2.7K	12.5	34	—	B9A	6	U.S.A.
22FC7	21.6	0.1	90	15.0	1.2	2.9K	12.3	36	—	B9A	13	U.S.A.
30C17	7.4	0.3	100	15.0	—	2.3K	8.5	20	—	B9A	36	Mazda



TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
30FL12	10.0	0.3	250	10.0	—	5.2K	3.4	18	—	B9A	1	Mazda
30FL13	10.0	0.3	200	10.0	—	5.2K	3.4	18	—	B9A	1	Mazda
30HB8	30.0	0.18	115	2.5	—	19.0K	3.9	74	410	B9A	2	U.S.A.
30L17	7.2	0.3	75	15.0	—	2.4K	16.5	40	—	B9A	3	Mazda
30PL14	16.0	0.3	200	10.0	—	5.2K	3.4	18	—	B9A	4	Mazda
32A8	32.0	0.15	100	3.5	1.0	28.0K	2.5	70	—	B9A	4	U.S.A.
35HB8	35.0	0.15	115	2.5	—	19.0K	3.9	74	410	B9A	2	U.S.A.
44GW8	44.0	0.1	250	1.2	1.7	62.5K	1.6	100	—	B9A	5	U.S.A.
45DX8	45.0	0.1	200	3.0	1.7	16.2K	4.0	65	—	B9A	6	U.S.A.
48A8	48.0	0.1	100	3.5	0.0	28.0K	2.5	70	—	B9A	4	U.S.A.
58TF1	58.0	0.15	200	4.0	2.0	20.0K	1.5	30	—	B9A	7	Magnadyne
7025A	12.6	0.15	250	1.2	2.0	62.5K	1.6	100	—	B9A	8	U.S.A.
	6.3	0.3										
7233	6.3	1.25	50	120.0	—	0.23K	17.5	4	22	B9A	9	U.S.A.
7308	6.3	0.335	100	15.0	—	2.5K	12.5	33	680	B9A	10	U.S.A.
7316	12.6	0.15	100	11.8	0.0	6.25K	3.1	19.5	—	B9A	8	U.S.A.
	6.3	0.3										
7370	40.0	0.13	120	36.0	2.0	1.56K	11.5	18	—	B9A	11	U.S.A.
	20.0	0.26										
7492	12.6	0.15	200	11.5	1.0	10.5K	6.7	70	—	B9A	8	U.S.A.
	6.3	0.3										
7643	6.3	0.33	100	14.0	—	3.6K	5.0	18	120	B9A	12	U.S.A.
7687	6.3	0.5	215	2.5	8.5	7.2K	2.5	18	—	B9A	12	U.S.A.
7699	12.6	0.3	275	2×45	—	—	10.5	—	—	B9A	13	U.S.A.
	6.3	0.6										
7716	13.6	0.35	125	1.5	1.0	35.0K	2.9	102	—	B9A	14	U.S.A.
7719	12.6	0.225	300	4.0	10.5	7.1K	3.5	25	—	B9A	15	U.S.A.
	6.3	0.45										
7724	14.0	0.15	250	0.7	3.0	72.0K	1.0	72	—	B9A	16	U.S.A.
7728	12.6	0.15	200	11.5	1.0	10.5K	6.7	70	—	B9A	8	U.S.A.
	6.3	0.3										
7729	12.6	0.15	100	0.5	1.0	80.0K	1.25	100	—	B9A	8	U.S.A.
	6.3	0.3										
7730	12.6	0.15	100	11.8	0.0	6.2K	3.1	19.5	—	B9A	8	U.S.A.
	6.3	0.3										
7731	6.3	0.45	150	18.0	1.0	4.5K	8.5	40	—	B9A	17	U.S.A.
7734	6.3	0.9	150	35.0	21.0	1.08K	5.4	5.5	—	B9A	18	U.S.A.
7803	6.3	0.365	90	15.0	1.2	2.6K	12.5	33	—	B9A	10	U.S.A.
A2521	6.3	0.37	130	16.0	1.0	4.0K	15.0	60	—	B9A	19	G.E.C.
A2599	6.3	0.3	130	16.0	1.0	4.0K	15.0	60	—	B9A	20	G.E.C.
A2744	6.3	0.37	130	16.0	1.0	4.0K	15.0	60	—	B9A	19	G.E.C.
A2792	6.3	0.3	500	1.0	3.2	95.0K	2.5	235	—	B9A	21	G.E.C.
A2900	12.6	0.15	200	11.5	1.0	10.5K	6.7	70	—	B9A	8	G.E.C.
	6.3	0.3										
B349	7.0	0.3	90	15.0	1.2	2.9K	9.0	26	—	B9A	22	G.E.C.
CCa	6.3	0.3	100	15.0	+9.0	2.8K	12.5	33	680	B9A	10	Siemens
E88CC/01	6.3	0.3	90	15.0	1.2	2.6K	12.5	33	—	B9A	10	Mullard
E188CC	6.3	0.335	100	15.0	+9.0	2.6K	12.5	33	680	B9A	10	European
E288CC	6.3	0.5	100	30.0	+9.0	1.4K	18.0	25	350	B9A	10	Siemens
E7015	12.6	0.15	100	11.8	0.0	6.2K	3.1	19.5	—	B9A	8	E. European
	6.3	0.3										
E7017	12.6	0.15	100	0.5	1.0	80.0K	1.25	100	—	B9A	8	E. European
	6.3	0.3										
E7019	6.3	0.33	90	12.0	1.5	4.0K	6.0	24	—	B9A	23	E. European
E7020	6.3	0.435	250	10.0	2.3	10.0K	5.9	57	—	B9A	10	E. European
E7022	7.0	0.3	90	15.0	1.2	2.7K	12.5	33	—	B9A	10	E. European
E7023	7.0	0.3	90	12.0	1.5	4.0K	6.0	24	—	B9A	23	E. European
E7024	9.0	0.3	200	10.0	2.1	8.2K	5.8	48	—	B9A	10	E. European
E7025	26.0	0.1	200	10.0	2.1	8.2K	5.8	48	—	B9A	10	E. European
E7048	6.3	0.45	100	0.8	1.0	48.0K	1.45	70	—	B9A	24	E. European
E7049	9.5	0.3	170	1.0	1.85	48.0K	1.45	70	—	B9A	24	E. European
E7051	6.3	0.45	150	18.0	1.0	4.5K	8.5	40	—	B9A	17	E. European
E7053	6.3	0.78	100	3.5	0.0	33.0K	2.2	70	—	B9A	4	E. European
E7054	28.0	0.1	170	1.0	1.8	48.0K	1.45	70	—	B9A	24	E. European
E7055	16.0	0.3	100	3.5	0.0	33.0K	2.2	70	—	B9A	4	E. European
E7056	9.5	0.3	150	18.0	1.0	4.5K	8.5	40	—	B9A	17	E. European
E7059	50.0	0.1	100	3.5	0.0	33.0K	2.2	70	—	B9A	4	E. European
E7074	6.3	0.2	175	12.0	1.5	4.86K	14.0	68	—	B9A	25	E. European
E7075	3.8	0.3	175	12.0	1.5	4.86K	14.0	68	—	B9A	25	E. European
E7076	6.3	0.33	6.3	1.0	0.45	4.5K	2.6	13	100K	B9A	10	E. European
E7087	15.0	0.3	200	3.0	1.7	16.25K	4.0	65	—	B9A	6	E. European
E7088	6.3	0.71	200	3.0	1.7	16.25K	4.0	65	—	B9A	6	E. European

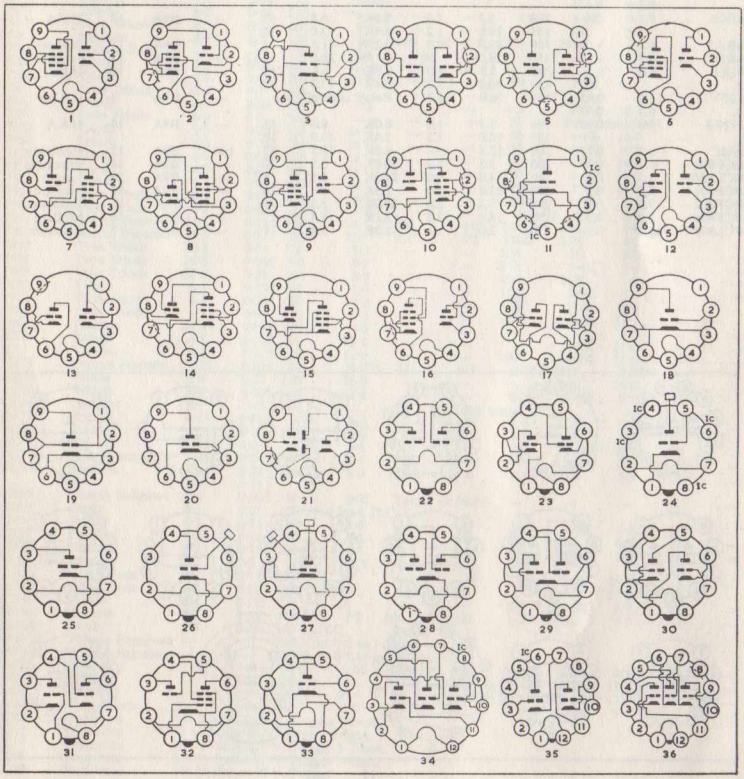
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
E7144	6.3	0.33	90	15.0	1.2	2.7K	12.5	33	—	B9A	10	E. European
EC88	6.3	0.17	160	12.5	—	4.7K	14.0	65	100	B9A	26	European
EC806S	6.3	0.165	185	12.0	—	4.9K	140.0	68	230	B9A	25	European
ECC89	6.3	0.365	90	15.0	1.2	3.0K	12.0	36	—	B9A	23	European
ECC186	12.6	0.15	250	10.5	8.5	7.8K	2.2	17	—	B9A	8	European
	6.3	0.3										
ECC282	12.6	0.15	100	11.8	0.0	6.2K	3.1	19.5	—	B9A	8	European
	6.3	0.3										
ECC803S	12.6	0.15	250	1.2	2.0	62.5K	1.6	100	—	B9A	8	European
	6.3	0.3										
ECC804	6.3	0.3	200	10.0	—	5.3K	3.4	18	—	B9A	10	European
ECC807	6.3	0.32	250	2.25	1.2	42.0K	3.3	140	—	B9A	27	European
ECC813	12.6	0.3	250	14.5	—	3.8K	5.2	20	620	B9A	28	E. European
	6.3	0.6										
ECF86	6.3	0.385	100	14.0	3.0	3.0K	5.5	17	—	B9A	29	European
ECF804	6.3	0.45	150	13.5	1.5	5.2K	7.2	38	—	B9A	17	Brimar
ECH84	6.3	0.3	50	3.0	0.0	13.5K	3.7	50	—	B9A	30	European



TRIODE AMPLIFIERS—Contd.

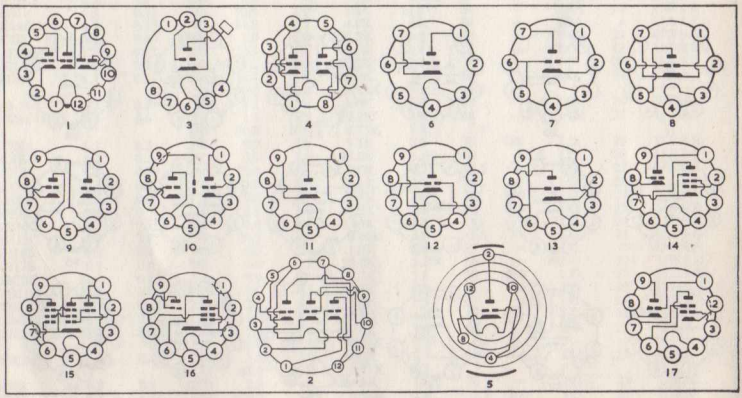
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
ECL85	6.3	0.9	100	10.0	0.0	9.0K	5.5	50	—	B9A	1	European
ECL86	6.3	0.7	250	1.2	1.7	62.5K	1.6	100	—	B9A	2	European
PC88	3.6	0.3	160	12.5	—	4.7K	14.0	65	100	B9A	3	European
PCC89	7.2	0.3	90	15.0	1.2	3.0K	12.0	36	—	B9A	4	European
PCC805	7.0	0.3	90	15.0	1.2	3.1K	9.0	28	—	B9A	4	European
PCC806	7.2	0.3	75	15.0	—	2.4K	16.5	40	—	B9A	5	European
PCE80	10.0	0.3	200	10.0	—	5.2K	3.4	18	—	B9A	6	European
PCE82	10.0	0.3	250	10.0	—	5.2K	3.4	18	—	B9A	6	European
PCE800	9.4	0.3	200	10.0	—	5.2K	3.4	18	—	B9A	6	European
PCF86	8.0	0.3	100	14.0	3.0	3.0K	5.5	17	—	B9A	7	European
PCF87	7.4	0.3	100	15.0	—	2.3K	8.5	20	—	B9A	8	European
PCF800	9.0	0.3	120	6.0	—	4.0K	5.0	20	—	B9A	8	European
PCL85	18.0	0.3	100	10.0	0.0	9.0K	5.5	50	—	B9A	9	European
PCL86	14.5	0.3	250	1.2	1.7	62.5K	1.6	100	—	B9A	2	European
PCL88	16.0	0.3	200	10.0	—	5.2K	3.4	18	—	B9A	10	European
R5559	6.3	0.3	150	25.0	—	1.6K	25.0	40	—	B9A	11	G.E.C.
UC88	12.0	0.1	160	12.5	—	4.7K	14.0	65	100	B9A	3	European
UCC89	21.6	0.1	90	15.0	1.2	3.0K	12.0	36	—	B9A	4	European
UCL86	44.0	0.1	250	1.2	1.7	62.5K	1.6	100	—	B9A	2	European
XC88	2.0	0.6	160	12.5	—	4.7K	14.0	65	100	B9A	3	Philips (B)
XCC82	12.6	0.15	100	11.8	0.0	6.25K	3.1	19.5	—	B9A	12	Philips (B)
	6.3	0.3										
XCC89	3.6	0.6	90	15.0	1.2	3.0K	12.0	36	—	B9A	4	Philips (B)
XCC189	3.8	0.6	90	15.0	1.2	2.7K	12.5	34	—	B9A	13	Philips (B)
XCF80	4.5	0.6	100	14.0	2.0	4.0K	5.0	20	—	B9A	14	Philips (B)
XCF82	4.8	0.6	150	18.0	1.0	4.7K	8.5	40	—	B9A	15	Philips (B)
XCL82	8.2	0.6	100	3.5	0.0	28.0K	2.5	70	—	B9A	10	Philips (B)
XCL84	7.5	0.6	200	3.0	1.7	16.2K	4.0	65	—	B9A	16	Philips (B)
XCL86	7.2	0.6	250	1.2	1.7	62.5K	1.6	100	—	B9A	2	Philips (B)
YC88	2.6	0.45	160	12.5	—	4.7K	14.0	65	100	B9A	3	Philips (B)
YCC89	4.8	0.45	90	15.0	1.2	3.0K	12.0	36	—	B9A	4	Philips (B)
YCC189	4.8	0.45	90	15.0	1.2	2.7K	12.5	34	—	B9A	13	Philips (B)
YCL82	10.8	0.45	100	3.5	0.0	28.0K	2.5	70	—	B9A	10	Philips (B)
YCL84	10.0	0.45	200	3.0	1.7	16.2K	4.0	65	—	B9A	16	Philips (B)
YCL86	10.0	0.45	250	1.2	1.7	62.5K	1.6	100	—	B9A	2	Philips (B)
6Н3П	6.3	0.3	150	8.2	2.0	6.5K	5.5	35	—	B9A	17	U.S.S.R.
6Н4П	12.6	0.15	150	2.0	2.5	26.5K	1.55	40	—	B9A	12	U.S.S.R.
	6.3	0.3										
6Ф1П	6.3	0.43	100	14.0	2.0	4.0K	5.0	20	—	B9A	14	U.S.S.R.
6С3П	6.3	0.3	150	11.0	1.6	1.3K	20.0	26	—	B9A	18	U.S.S.R.
6С4П	6.3	0.3	150	11.0	1.6	1.3K	20.0	26	—	B9A	19	U.S.S.R.
6Н5П	6.3	0.6	200	8.0	—	7.7K	3.5	27	600	B9A	13	U.S.S.R.
6Н6П	6.3	0.75	120	30.0	2.0	1.8K	11.0	20	—	B9A	20	U.S.S.R.
6Н14П	6.3	0.33	90	12.0	1.5	4.0K	6.0	24	—	B9A	4	U.S.S.R.
6С3П	6.3	0.45	250	1.0	3.0	58.0K	1.2	70	—	B9A	21	U.S.S.R.
1Н3С	1.2	0.12	120	2.5	5.5	13.7K	0.8	11	—	I.O.	22	U.S.S.R.
2Н1	2.0	0.24	120	3.2	0.0	16.0K	2.1	32	—	I.O.	22	U.S.S.R.
6ЕМ7	6.3	0.9	250	1.4	3.0	40.0K	1.6	68	—	I.O.	23	U.S.A.
			150	50.0	20.0	0.75K	7.2	5.4				
6G–H4	6.3	0.2	20K	1.2	125.0	6.0K	333.0	2000	—	I.O.	24	Toshiba
10ЕМ7	9.7	0.6	250	1.4	3.0	40.0K	1.6	68	—	I.O.	23	U.S.A.
			150	50.0	20.0	0.75K	7.2	5.4				
6С2С	6.3	0.3	250	9.0	8.0	7.7K	2.6	20	890	I.O.	25	U.S.S.R.
6С4Б	6.3	0.3	250	0.9	2.0	66.0K	1.5	100	2.2K	I.O.	26	U.S.S.R.
6С5Д	6.3	0.77	250	15.0	—	9.0K	4.75	42.5	—	I.O.	27	U.S.S.R.
6Н7С	6.3	0.8	250	3.0	5.0	22.6K	1.6	35	—	I.O.	28	U.S.S.R.
6Н8С	6.3	0.6	250	9.0	8.0	7.7K	2.6	20	890	I.O.	23	U.S.S.R.
6Н9С	6.3	0.3	250	2.3	2.0	44.0K	1.6	70	890	I.O.	23	U.S.S.R.
6Н10С	6.3	0.3	250	2.0	2.0	53.0K	1.3	70	1K	I.O.	29	U.S.S.R.
6Н13С	6.3	2.8	90	80.0	30.0	0.46K	5.0	2.3	—	I.O.	23	U.S.S.R.
6Н16Б	6.3	0.4	100	8.0	2.4	5.0K	5.0	25	—	I.O.	30	U.S.S.R.
6Н17Б	6.3	0.4	200	4.0	1.2	28.0K	2.5	70	—	I.O.	30	U.S.S.R.
12С2С	12.6	0.15	250	9.0	8.0	7.7K	2.6	20	890	I.O.	25	U.S.S.R.
12Н1С	12.6	0.15	180	7.6	6.5	8.4K	1.9	16	890	I.O.	31	U.S.S.R.
12Н10С	12.6	0.15	250	2.0	2.0	53.0K	1.3	70	1K	I.O.	29	U.S.S.R.
12М1П	12.6	0.225	25	1.1	1.0	7.5K	1.9	14	—	I.O.	32	U.S.S.R.
13ЕМ7	13.6	0.45	250	1.4	3.0	40.0K	1.6	68	—	I.O.	23	U.S.A.
			150	50.0	20.0	0.75K	7.2	5.4				
15ЕА7	14.8	0.45	250	1.5	3.0	34.0K	1.9	65	—	I.O.	23	U.S.A.
			175	48.0	25.0	0.77K	6.5	5				
6188	6.3	0.3	250	2.3	—	44.0K	1.6	70	—	I.O.	23	U.S.A.
6336	6.3	4.75	190	185.0	—	0.25K	11.0	2.7	200	I.O.	23	U.S.A.

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
7105	12.6	1.25	135	125.0	—	0.29K	7.0	2.0	250	I.O.	23	U.S.A.
E7120	6.3	0.33	50	200.0	3.0	0.115K	16.0	1.84	—	I.O.	33	E. European
EC360	6.3	1.2	50	200.0	3.0	0.115K	16.0	1.84	—	I.O.	33	European
6C10	6.3	0.45	250	1.2	2.0	62.5K	1.6	100	—	B12A	34	U.S.A.
6D10	6.3	0.45	125	4.2	1.0	13.6K	4.2	57	—	B12A	34	U.S.A.
6FJ7	6.3	0.9	250	8.0	8.0	9.0K	2.5	22.5	—	B12A	35	U.S.A.
			250	41.0	9.5	2.5K	7.7	15.4	—			
6K11	6.3	0.6 a	250	10.5	8.5	7.7K	1.6	17	—	B12A	36	U.S.A.
		b & c	250	1.2	2.0	62.5K	1.6	100	—			
6Q11	6.3	0.6	140	22.0	—	7.0K	2.5	18	—	B12A	36	U.S.A.
			140	0.5	—	80.0K	1.25	100	—			
			140	1.2	—	62.5K	1.6	100	—			



TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
6B10	6.3	0.6	250	10.0	8.0	7.8K	2.5	18	—	B12A	1	U.S.A.
7688	6.3	0.45	250	1.2	2.0	62.5K	1.6	100	—	B12A	2	U.S.A.
7689	6.3	0.45	250	10.5	8.5	7.7K	2.2	17	—	B12A	2	U.S.A.
7690	6.3	0.45	250	10.0	2.0	10.9K	5.5	60	—	B12A	2	U.S.A.
EC162	6.3	1.2	2K	10.0	27.0	21.0K	3.0	63	—	G8A	3	European
PTT122P	18.0	0.105	250	10.0	2.0	11.0K	5.5	60	200	F8A	4	French
2CW4	2.0	0.45	70	8.0	—	6.3K	9.5	62	47K	Nuvistor	5	U.S.A.
6CW4	6.3	0.13	70	8.0	—	6.3K	9.5	62	47K	Nuvistor	5	U.S.A.
16DS4	6.3	0.135	110	6.5	—	6.9K	9.0	62	130	Nuvistor	5	U.S.A.
7586	6.3	0.14	75	10.5	—	2.9K	11.5	33	—	Nuvistor	5	Valvo
7895	6.3	0.135	110	7.0	—	6.8K	9.4	64	150	Nuvistor	5	R.C.A.
3AT4A	3.1	0.3	200	11.5	1.0	9.9K	6.7	66	—	B7G	6	U.S.A.
6MH1	6.3	0.4	150	14.5	—	3.5K	13.0	46	100	B7G	7	Japanese
EC97	6.3	0.2	135	11.0	1.0	5.1K	13.5	70	—	B7G	8	Siemens
5R–HH5	4.6	0.25	80	0.05	0.8	270.0K	0.3	90	—	B9A	9	Japanese
	9.2	0.125										
6JK8	6.3	0.4	100	5.3	1.0	8.0K	6.8	55	—	B9A	10	U.S.A.
			135	10.0	1.2	5.4K	13.0	70				
6RA5	6.3	1.0	100	80.0	20.0	0.29K	11.5	3.3	—	B9A	11	Japanese
6RH2	6.3	0.35	150	28.0	+20	0.15K	28.0	4.1	—	B9A	12	Japanese
8JK8	8.4	0.3	100	5.3	1.0	8.0K	6.8	55	—	B9A	10	U.S.A.
			135	10.0	1.2	5.4K	13.0	70				
12FV7	12.6	0.45	100	36.0	16.0	Relay control tube			—	B9A	9	U.S.A.
	6.3	0.9										
17JK8	16.8	0.15	100	5.3	1.0	8.0K	6.8	55	—	B9A	10	U.S.A.
			135	10.0	1.2	5.4K	13.0	70				
E88C	6.3	0.155	160	12.5	—	4.8K	13.5	65	100	B9A	13	European
ECF802	6.3	0.45	200	3.5	2.0	20.0K	3.5	70	—	B9A	14	European
ECLL800	6.3	0.6	100	4.0	9.0	24.0K	0.05	1.2	—	B9A	15	Lorenz
PCF801	8.0	0.3	100	15.0	3.0	2.3K	8.5	20	—	B9A	16	Mullard
PCF802	9.0	0.3	200	3.5	2.0	20.0K	3.5	70	—	B9A	14	European
PCF806	8.0	0.3	100	14.0	3.0	3.1K	5.5	17	—	B9A	16	Mullard
PCL800	16.0	0.3	250	2.0	—	5.3K	3.4	18	—	B9A	17	Ediswan



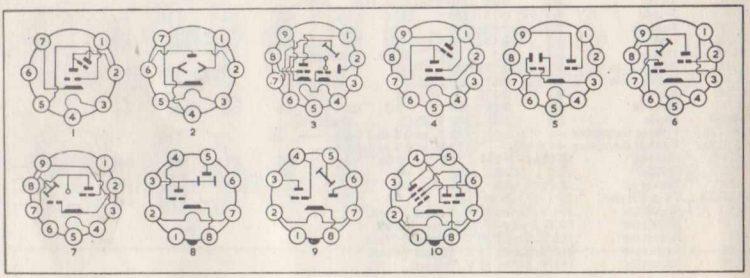
	Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	1/mA	SCREEN Volts	1/mA	Neg. Grid Volts	ra (KΩ)	gm (mA/V)	Anode Load Ω	Output (mW)
1ER20	Pentode	1·25	0·01	20	0·05	20·0	0·01	2·0	2·5M	0·1	—	—
3D-HH12	Twin Triode	3·5	0·6	90	9·0	—	—	1·0	3·8K	9·5	—	—
3D-HH13	Twin Triode	3·5	0·6	90	9·0	—	—	1·0	3·8K	9·5	—	—
5A/178G	Pentode	6·3	0·175	190	—	190	—	—	—	5·0	—	—
6DH3	Triode	6·3	0·175	150	1·0	—	—	2·0K	27·5KΩ	2·0	—	—
6D-HH12	Twin Triode	6·3	0·3	90	9·0	—	—	1·0	3·8K	9·5	—	—
6D-HH13	Twin Triode	6·3	0·3	90	9·0	—	—	1·0	3·8K	9·5	—	—
3040	Pentode	0·625	0·01	15	0·06	15·0	0·02	0·75	1·2M	0·09	—	—
4069	Triode	1·25	0·014	9	0·1	—	—	2·7	—	0·08	—	—
5911	Pentode	0·625	0·013	22·5	0·05	18·0	0·01	1·15	4M	0·1	—	—
5913	Output Pentode	1·25	0·013	22·5	0·45	22·5	0·1	0·2	400K	0·42	100K	1·8
6778	Triode	6·3	0·15	100	12·0	—	—	150	3·65K	5·5	—	—
6907	Twin Tetrode	12·6	0·65	300	50	—	—	—	—	2·5	—	—
6932	Pentode	1·2	0·02	45	0·05	—	—	—	—	0·5	—	—
7077	Triode	6·3	0·24	250	6·4	—	—	5·0	8·9K	9·0	—	—
7079	Twin Triode	6·3	0·3	100	8·0	—	—	—	4K	5·0	—	—
7083	Pentode	6·3	0·2	120	7·5	120	2·5	200	340K	5·0	—	—
7099	Voltage Reg.	—	—	150	0·075	—	—	—	—	—	—	—
7266	Diode	6·3	0·21	600	P.I.V.	2·0mA	DC					
7296	Triode	6·3	0·4	200	15·0	—	—	68	5·3K	15	—	—
7327	Twin Triode	6·3	0·3	300	—	—	—	—	—	—	—	—
7462	Triode	6·3	0·24	150	7·2	—	—	+6	9K	10·5	—	—
7550	Twin Triode	6·3	0·5	300	—	—	—	30	Pulse amplifier			
7552	Triode	6·3	0·225	125	14	—	—	50	4·4K	16·0	—	—
7553	Triode	6·3	0·225	125	14	—	—	50	4·4K	16·0	—	—
7554	Triode	6·3	0·225	125	14	—	—	50	4·4K	16·0	—	—
7576	Triode	6·3	0·45	200	15	—	—	150	4·5K	10·7	—	—
7588	Triode	6·3	0·4	200	24	—	—	270Ω	3·5K	45·0	—	—
7759	Twin Triode	26·5	0·09	100	6·5	—	—	150Ω	6·5K	5·4	—	—
7760	Twin Triode	26·5	0·09	26·5	3·0	—	—	2·2MΩ	4K	5·0	—	—
7761	Output Pentode	26·5	0·11	150	21	100	4·0	100Ω	50K	9·0	—	—
7762	Output Pentode	26·5	0·11	110	30	110	2·2	270Ω	15K	4·2	—	—
7887	Twin Triode	26·5	0·09	100	8·5	—	—	220	4K	5·0	—	—
7888	Twin Triode	26·5	0·045	100	8·5	—	—	150	5·4K	5·0	—	—
7889	Twin Triode	26·5	0·09	100	0·8	—	—	100	36K	1·8	—	—
7895	Triode	6·3	0·135	110	7·0	—	—	150	5·8K	9·4	—	—
7962	Twin Triode	6·3	0·235	60	9·0	—	—	220	2·1K	9·5	—	—
7963	Twin Triode	6·3	0·35	100	7·5	—	—	270	3·1K	13·0	—	—
8064	Pentode	26·5	0·045	165	7·0	—	—	—	—	4·5	—	—
8070	Triode	6·3	0·125	110	9·0	—	—	—	5·2K	11·0	—	—
8071	Triode	6·3	0·125	150	13·0	—	—	100	4·2K	13·0	—	—
95108	Output Pentode	1·25	0·045	45	0·875	45	0·2	2·75	750K	0·65	—	—
A2688	Triode	6·3	0·37	130	16·0	—	—	—	40K	15·0	—	—
AC761	Triode	4·0	0·105	60	2·1	—	—	1·5	1·5K	2·3	—	—
CK1237	Rectifier	2·5	1·13	100 P.I.V.		20 V D.C. at 3 amps.						
DC760	Triode	1·15	0·013	4·5	0·2	—	—	2·0	5K	0·06	—	—
DC761	Triode	0·25	0·2	150	12·0	—	—	4·5	4K	3·4	—	—
DC762	Triode	1·15	0·013	8·5	0·4	—	—	2·0	8·2K	0·12	—	—
DCF60	Freq. Changer	1·25	0·04	45·0	0·4	45	0·15	—	1M	0·2	—	—
DL761	Pentode	1·25 / 2·5	0·22 / 0·11	125	9·0	125	1·4	7·5	—	2·3	—	—
E7065	Tuning Indicator	1·4	0·025	90	0·25	Target 13·5mA		—	—	—	—	—
E7095	Diode	6·3	0·15	150 V. at 9mA D.C.								
E7096	Triode	6·3	0·15	150	13·0	—	—	2·4	4·0K	6·5	—	—
E7097	Pentode	6·3	0·15	100	7·2	100	2·0	1·2	260K	4·5	—	—
E7098	Pentode	6·3	0·15	100	7·5	100	2·5	1·5	250K	5·0	—	—
EA53	Diode	6·3	0·3	1K	P.I.V.	0·5mA						
EC157	Disc Triode	6·3	0·735	180	30	—	—	2·8	2·4K	18·0	—	—
EC158	Disc Triode	6·3	0·85	300	150	—	—	—	—	25·0	—	—
EC561	Triode	6·3	0·135	250	18	—	—	2·0	8·6K	6·5	—	—
EF761	Pentode	6·3	0·15	100	7·2	100	2·0	1·2	260K	4·5	—	—
GA560	Diode	1·5	1·5	100 V. D.C.		50mA.						
KST125	Voltage Regulator	—	—	125 V. at 0·5 to 1·5mA.								
KST150	Voltage Regulator	—	—	150 V. at 0·5 to 1·5mA.								
O6P90	Pentode	0·625	0·013	22·5	0·05	18·0	0·01	1·15	4M	0·1	—	—
RH6C	Triode	6·0	0·9	400	60	—	—	+20	3·5K	17	—	—
RH7C	Triode	6·0	0·9	400	60	—	—	+20	3·5K	17	—	—
SR2662A	Twin Triode	26·5	0·09	55	5·0	—	—	—	2·2K	9·0	—	—
XC12	Regulator	104 V. Strike 85 V. Trigger 1·0mA.										
XC15	Regulator	80 V. Strike 60 V. Trigger 2·0mA.										
XC17	Regulator	163 V. Strike 70 V. Trigger 0·75mA.										
XC18	Regulator	210 V. Strike 73 V. Trigger 1·0mA.										
XC20	Regulator	145 V. Strike 70 V. Trigger.										

SUB-MINIATURE VALVES—Contd.

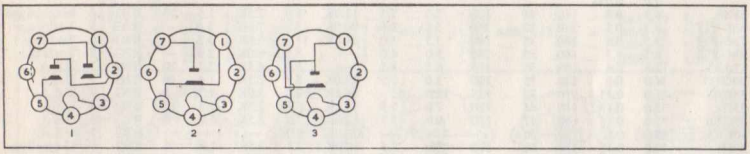
Type		FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	SCREEN Volts	I/mA	Neg. Grid Volts	ra (KΩ)	gm (mA/V)	Anode Load Ω	Output (mW)
XC22	Regulator	210 V. Strike.										
XC23	Regulator	200 V. Strike 70 V. Trigger 7·5mA.										
XC24	Regulator	210 V. Strike 68 V. Trigger 1·0mA.										
XC25	Regulator	145 V. Strike 60 V. Trigger 1·0mA.										
XC26	Regulator	162·5 V. Strike			1·0mA.							
XFR5	Pentode	1·25	0·02	67·5	1·8	67·5	0·48	0	1M	1·1	—	—
XFY15	Output Pentode	1·25	0·02	67·5	1·7	67·5	0·7	1800	—	1·0	30K	100
XFY54	Output Pentode	1·25	0·01	22·5	0·34	22·5	0·08	2	—	0·28	30K	2·7
XR4	Output Pentode	1·25 2·5	0·125 0·062	125	7·0	125	1·1	7·5	—	1·9	—	—
1П3Б	Output Pentode	1·25	0·027	45	0·75	45	0·45	2	50K	0·425	50K	4·5
1П4Б	Output Pentode	1·25	0·02	45	0·6	45	0·45	2	200K	0·4	60K	3·5
6В1П	Pent. Sec. Emiss.	6·3	0·4	250	26	250	2·7	15	—	29·0	—	—
6С3Б	Triode	6·3	0·15	270	8·5	—	—	1·5K	6·3K	2·2	—	—
6Ж10Б	Pentode	6·3	0·25	120	12·0	120	8·0	1·5	—	4·5	—	—
О6Ж6В	Triode	0·62	0·02	30	—	—	—	—	—	0·11	—	—
CF5B	Volt. Regulator	180 V. Strike 150 V. Regulation 5–10mA.										
CF7C	Volt. Regulator	480 V. Strike 390 V. Regulation 3–100 A.										
CF8C	Volt. Regulator	970 V. Strike 900 V. Regulation 3–100 A.										
CF9C	Volt. Regulator	1320 V. Strike 1230 V. Regulation 10–100 A.										

TUNING INDICATORS

Type	HEATER Volts	Amps	TARGET Volts	I/mA	Grid Volts	BASE Type	Ref.	Maker
6M–E5	6.3	0.15	180	3.5	3	B7G	1	Toshiba
6M–E10	6.3	0.15	110	2.0	2	B7G	1	Toshiba
6355	6.3	0.14	250	—	—	B7G	2	U.S.A.
6GX8	6.3	0.27	200	0.2	7	B9A	3	U.S.A.
6M1	6.3	0.3	250	0.5	18	B9A	4	Magnadyne
9FG6	9.45	0.15	170	0.3	15	B9A	5	U.S.A.
E7046	6.3	0.27	250	1.6	20	B9A	4	E. European
E7047	16.0	0.1	250	1.6	20	B9A	4	E. European
E7082	6.3	0.27	250	0.6	22	B9A	5	E. European
EAM86	6.3	0.27	200	0.2	7	B9A	3	European
EM84A	6.3	0.27	250	0.45	10	B9A	5	European
EM87	6.3	0.3	250	1.8	14	B9A	5	European
EMM802	6.3	0.5	250	0.45	21	B9A	6	European
6E1П	6.3	0.3	250	4.0	2	B9A	7	U.S.S.R.
6E5C	6.3	0.3	250	3.0	8	I.O.	8	U.S.S.R.
6G-E7	6.3	0.3	250	3.0	5	I.O.	9	Ten (Japan)
19G5G	15.0	0.1	200	0.1	20	I.O.	10	U.S.A.
19U5G	15.0	0.1	200	0.1	20	I.O.	10	U.S.A.

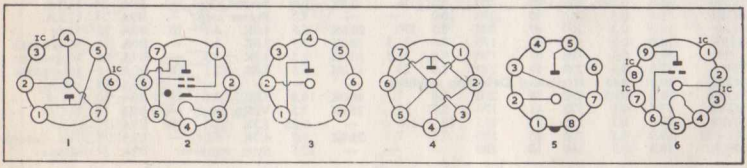


Type	FILAMENT or HEATER Volts	Amps	Input Volts (RMS)	Max. I/mA	BASE Type	Ref.	Maker
6B32	6.3	0.3	150	9.0	B7G	1	Tesla
6EB5	6.3	0.3	150	5.5	B7G	1	U.S.A.
6M-D3	6.3	0.175	270	16.5	B7G	3	Japanese
6M-D4	6.3	0.175	200	2.0	B7G	2	Japanese
6X2П	6.3	0.3	150	9.0	B7G	1	U.S.S.R.
E7004	6.3	0.3	150	9.0	B7G	1	E. European
XAA91	3.15	0.6	150	9.0	B7G	1	Philips (B)



REGULATORS and THYRATRONS

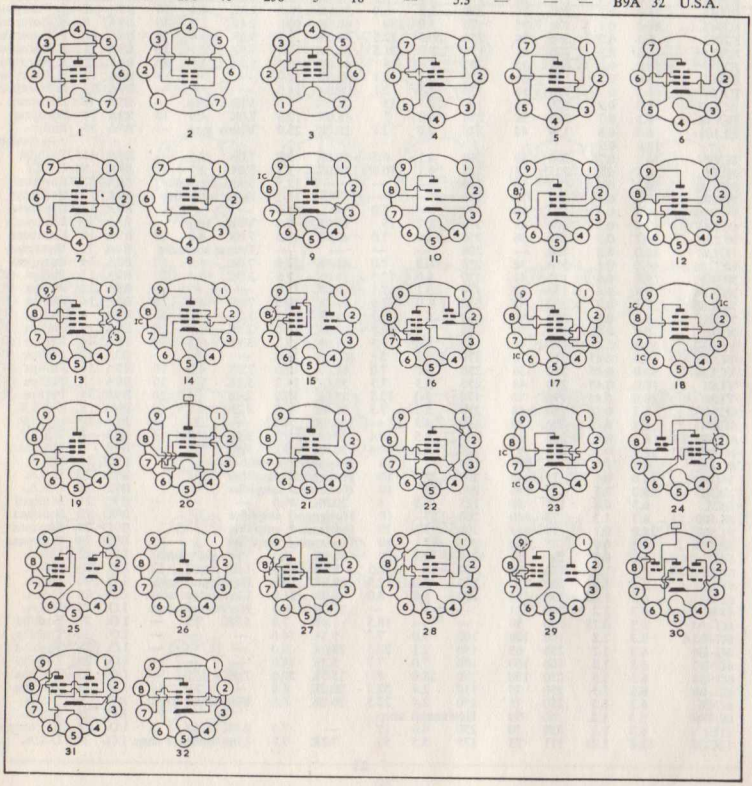
Type	Used as	HEATER Volts	Amps	STABILISED SUPPLY Volts	Amps	STRIKING VOLTS	VOLTAGE DROP	TUBE CURRENT m/A Min.	Max.	Max. Anode Volts	Max. Peak Current Amps	Control Ratio	BASE Type	Ref.	Maker
11TA31	VR	—	—	150	—	185	—	5	30	—	—	—	B7G	1	Tesla
14TA31	VR	—	—	75	—	95	—	5	40	—	—	—	B7G	1	Tesla
21TE31	Relay	6.3	0.6	650 V. peak		100 mA average							B7G	2	Tesla
75C1	VR	—	—	75	—	115	—	2	60	—	—	—	B7G	3	Mullard
150C4	VR	—	—	150	—	185	—	5	30	—	—	—	B7G	1	Mullard
ST85/10	VR	—	—	85	—	125	—	1	10	—	—	—	B7G	4	Tesla
ST105/30	VR	—	—	108	—	133	—	5	30	—	—	—	B7G	1	Tesla
STV75/40	VR	—	—	75	—	95	—	5	40	—	—	—	B7G	1	E. European
STV108/30	VR	—	—	108	—	133	—	5	30	—	—	—	B7G	1	E. European
STV150/30	VR	—	—	150	—	185	—	5	30	—	—	—	B7G	1	E. European
CT1П	VR	—	—	150	—	185	—	5	30	—	—	—	B7G	1	U.S.S.R.
CT2П	VR	—	—	108	—	133	—	5	30	—	—	—	B7G	1	U.S.S.R.
CT2C	VR	—	—	75	—	105	—	5	40	—	—	—	I.O.	5	U.S.S.R.
CT3C	VR	—	—	105	—	135	—	5	40	—	—	—	I.O.	5	U.S.S.R.
CT4C	VR	—	—	150	—	185	—	5	40	—	—	—	I.O.	5	U.S.S.R.
11A1	Regulator	6.3	0.95	150	0.1	—	—	—	—	—	—	—	B9A	6	Ediswan



OUTPUT VALVES

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	SCREEN Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Anode Load Ω	Output W	Dis %	BASE Type	Ref.	Maker
1S4T	1.4	0.05	90	7.4	67.5	1.4	7	100.0K	1.4	8.0K	0.21	—	B7G	1	Tungsram
2L32	1.4	0.1	67.5	7.0	67.5	2.0	7	100.0K	1.5	—	0.15	10	B7G	2	Tesla
	2.8	0.05													
2L33	1.4	0.2	150	14.1	90	3.5	8.4	100.0K	1.9	8.0K	0.7	6	B7G	3	Tesla
	2.8	0.1													
2L34	1.4	0.1	67.5	7.0	67.5	2.0	7	100.0K	1.5	—	0.15	10	B7G	2	Tesla
	2.8	0.05													
3S4T	1.4	0.05	90	7.4	67.5	1.4	7	100.0K	1.4	8.0K	0.21	—	B7G	2	Tungsram
	2.8	0.025													
3Y4	1.4	0.05	62.5	5.0	62.5	0.95	5.4	100.0K	1.25	9.5K	0.15	—	B7G	2	Toshiba
	2.8	0.025													
6F40	6.3	0.8	110	41	110	7.0	7.5	13.0K	5.8	2.5K	1.5	10	B7G	4	Magnadyne
6M–P17	6.3	0.5	250	32	250	5.5	8.0	90.0K	5.2	7.6K	3.4	—	B7G	5	Toshiba
7M–P18	7.5	0.6	200	35	180	5.5	5.0	24.0K	11.0	5.0K	3.2	—	B7G	6	Toshiba
8M–P12	8.5	0.3	180	25	180	5.0	6.0	—	5.5	6.0K	2.0	—	B7G	5	Toshiba
12AS5	12.6	0.4	150	36	110	6.5	8.5	—	5.6	4.5K	2.2	10	B7G	7	U.S.A.
34GD5	34.0	0.1	110	35	110	3.0	7.5	13.0K	5.7	2.5K	1.4	10	B7G	7	U.S.A.
35EH5	35.0	0.15	110	32	115	12.0	62	14.0K	12.0	3.0K	1.2	8	B7G	7	U.S.A.
35F4	35.0	0.15	110	41	110	7.0	7.5	13.0K	5.8	2.5K	1.5	10	B7G	4	U.S.A.
35GL6	35.0	0.15	110	47	110	9.0	7.5	12.0K	7.5	2.5K	1.8	8	B7G	8	U.S.A.
40FR5	40.0	0.1	150	30	—	—	—	20.0K	6.0	—	—	—	B7G	7	U.S.A.
50F2	50.0	0.15	110	50	110	4.0	7.5	10.0K	7.5	2.5K	1.9	9	B7G	4	Magnadyne
50FA5	50.0	0.1	110	41	110	7	7.5	13.0K	5.8	2.5K	1.5	10	B7G	7	U.S.A.
50FK5	50.0	0.1	150	32	—	—	—	14.0K	12.8	—	—	—	B7G	7	U.S.A.
60FX5	60.0	0.1	110	36	115	10.0	62	17.5K	13.5	3.0K	1.5	8	B7G	7	U.S.A.
1662	1.4	0.2	150	14.1	90	3.5	8.4	100.0K	1.9	8.0K	0.7	6	B7G	3	U.S.A.
	2.8	0.1													
2M2M	1.2	0.06	60	3.7	60	1.0	3.5	120.0K	1.1	15.0K	0.09	7.5	B7G	2	U.S.S.R.
	2.4	0.03													
6DB5	6.3	1.2	200	47	125	8.5	180	28.0K	8.0	4.0K	3.8	—	B9A	9	U.S.A.
6F60	6.3	0.8	250	55	210	8.0	23	17.0K	5.0	5.5K	2.5	10	B9A	10	Magnadyne
6F80	6.3	0.7	180	36	180	4.6	—	100.0K	10.0	Video amp.		—	B9A	11	Magnadyne
6GC5	6.3	1.2	200	47	125	8.5	180	28.0K	8.0	4.0K	3.8	—	B9A	12	U.S.A.
6GK6	6.3	0.76	250	48	250	5.5	7.3	38.0K	11.3	5.2K	5.7	10	B9A	13	U.S.A.
6GT5	6.3	1.2	Horizontal Deflection amplifier					—	—	—	—	—	B9A	14	U.S.A.
6GV8	6.3	0.85	170	41	170	2.7	15	25.0K	7.5	Video output		—	B9A	15	U.S.A.
6GW8	6.3	0.7	250	36	250	6.0	7	48.0K	10.0	7.0K	4.0	10	B9A	16	U.S.A.
6HB6	6.3	0.76	250	40	125	4.2	33	28.0K	24.0	Video amp.		—	B9A	17	U.S.A.
6L40	6.3	0.76	250	48	250	5.5	135	47.5K	11.3	4.5K	5.7	10	B9A	18	Tesla
6L41	6.3	0.75	250	45	250	4.7	7.25	27.0K	7.0	—	—	—	B9A	19	Tesla
6L50V	6.3	1.0	400	30	250	2.0	25.0	75.0K	3.5	—	—	—	B9A	20	Tesla
6R–B11	6.3	0.8	200	45	200	2.5	12.5	40.0K	7.5	4.0K	4.5	—	B9A	21	Toshiba
6R–P10	6.3	0.5	150	36	150	8.0	60	60.0K	13.5	—	—	—	B9A	22	Toshiba
6R–P15	6.3	0.75	250	59	250	16.0	8.0	32.0K	11.0	4.0K	6.8	—	B9A	23	Toshiba
8B8	8.0	0.6	170	41	170	8.0	11.5	16.0K	7.5	3.9K	3.3	10	B9A	24	U.S.A.
8BM8	8.0	0.6	170	41	170	8.0	11.5	16.0K	7.5	3.9K	3.3	10	B9A	24	U.S.A.
8CW5	8.0	0.6	200	64	200	3.2	215	28.0K	10.0	2.5K	5.3	—	B9A	18	U.S.A.
8DX8	8.0	0.6	170	18	170	3.1	2.1	100.0K	11.0	—	—	—	B9A	25	U.S.A.
8GW8	7.5	0.6	250	36	250	6.0	7.0	48.0K	10.0	7.0K	4.0	10	B9A	16	U.S.A.
8R–B11	8.5	0.6	200	45	200	2.5	12.5	40.0K	7.5	4.0K	4.5	—	B9A	21	Toshiba
9R–A6	9.5	0.6	250	26	—	—	12.0	1.75K	8.5	Vert. amp.		—	B9A	26	Toshiba
10BM8	10.0	0.45	170	41	170	8.0	11.5	16.0K	7.5	3.9K	3.3	10	B9A	24	U.S.A.
10BQ5	10.0	0.45	250	48	250	5.5	7.3	38.0K	11.3	5.2K	5.7	10	B9A	18	U.S.A.
10CW5	10.0	0.45	170	70	170	5.0	12.5	23.0K	10.0	2.4K	5.6	10	B9A	18	U.S.A.
10DX8	10.0	0.45	170	18	170	3.1	2.1	100.0K	11.0	—	—	—	B9A	25	U.S.A.
10GW8	10.0	0.45	250	36	250	6.0	7.0	48.0K	10.0	7.0K	4.0	10	B9A	16	U.S.A.
12GT5	12.6	0.6	Horizontal Deflection amplifier					—	—	—	—	—	B9A	14	U.S.A.
14GW8	14.7	0.3	250	36	250	6.0	7	48.0K	10.0	7.0K	4.0	10	B9A	16	U.S.A.
15F80	15.0	0.3	180	36	180	4.6	—	100.0K	10.0	Video amp.		—	B9A	11	Magnadyne
15TP7	15.0	0.3	200	18	200	3.0	2.9	130.0K	10.4	—	—	—	B9A	25	U.S.A.
16CN8	16.0	0.28	200	35	200	6.5	16	5.0K	6.4	Frame amp.		—	B9A	24	U.S.A.
16GK8	16.0	0.3	250	30	250	10.0	—	—	7.5	Frame amp.		—	B9A	24	U.S.A.
16L40	16.5	0.3	200	45	200	8.5	270	20.0K	7.6	4.0K	4.2	10	B9A	18	Tesla
16TP6	16.0	0.3	170	41	170	9.0	11.5	20.0K	7.5	3.9K	3.3	—	B9A	24	Magnadyne
16TP8	16.0	0.3	170	41	170	9.0	11.5	20.0K	7.5	3.9K	3.3	—	B9A	24	Magnadyne
17F6	17.0	0.3	250	55	210	8.0	23	17.0K	5.0	5.5K	2.5	10	B9A	10	Magnadyne
17GT5	16.8	0.45	Horizontal Deflection amplifier					—	—	—	—	—	B9A	14	U.S.A.
17GW6	16.8	0.45	250	36	250	6.0	7	48.0K	10.0	7.0K	4.0	10	B9A	16	U.S.A.
18GV8	17.8	0.3	170	41	170	2.7	15	25.0K	7.5	Video amp.		—	B9A	15	U.S.A.
18HB8	18.0	0.3	115	33	115	10	150	—	6.25	3.5K	1.0	8	B9A	27	U.S.A.
19R–P11	19.0	0.2	120	35	120	7.5	7	25.0K	5.5	4.0K	1.0	—	B9A	28	Ten (Japan)
30FL12	10.0	0.3	180	10	180	—	—	—	12.5	Sync. separator			B9A	29	Mazda

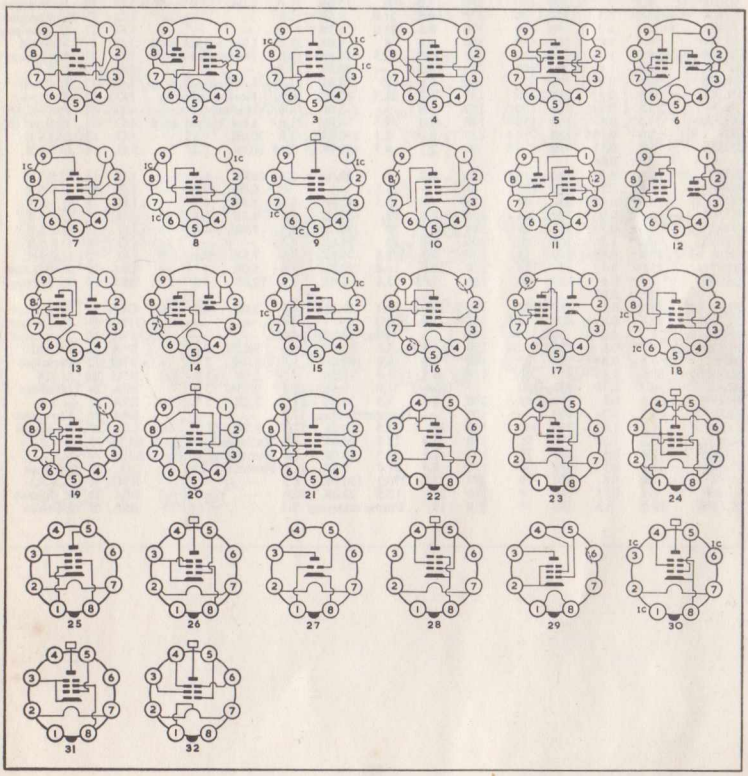
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	SCREEN Volts	I/mA	Neg. Grid Volts	r_a KΩ	g_m mA/V	Anode Load Ω	Output W	Dis %	BASE Type	Ref.	Maker
30FL13	10.0	0.3	180	10	180	—	—	—	12.5	Sync. separator			B9A	29	Mazda
30HB8	30.0	0.18	115	33	115	10	150	—	6.25	3.5K	1.0	8	B9A	27	U.S.A.
30PL14	16.0	0.3	200	—	200	—	—	—	Frame scanning				B9A	24	Mazda
32A8	32.0	0.15	200	35	200	7.0	16.0	20.0K	6.4	5.6K	3.5	—	B9A	24	Toshiba
35F6	35.0	0.15	250	55	210	8.0	23	17.0K	5.0	5.5K	2.5	10	B9A	10	Magnadyne
35HB8	35.0	0.15	115	33	115	10	150	—	6.25	3.5K	1.0	8	B9A	27	U.S.A.
44GW8	44.0	0.1	250	36	250	6	7	48.0K	10.0	7.0K	4.0	10	B9A	16	U.S.A.
45DX8	45.0	0.1	200	18	200	3	2.9	130.0K	10.4	—	—	—	B9A	25	U.S.A.
48A8	48.0	0.1	170	41	170	9	11.5	20.0K	7.5	3.9K	3.3	—	B9A	24	U.S.A.
48BQ5	48.0	0.1	170	70	170	5	170	47.5K	10.0	2.4K	5.6	—	B9A	18	U.S.A.
58TF1	58.0	0.15	240	2 × 38	240	2 × 14	31	25.0K	2.5	7.0K	11.0	10	B9A	30	Magnadyne
6360	12.6	0.41	250	30	200	1.4	21.5	—	—	8.0K	9.3	—	B9A	31	U.S.A.
	6.3	0.82													
6417	12.6	0.375	300	50	—	—	—	—	7.0	—	—	—	B9A	19	U.S.A.
7189	6.3	0.76	250	48	250	5.5	7.3	40.0K	11.3	8.0K	12.0	4	B9A	18	U.S.A.
7551	13.5	0.36	250	40	250	3	18	—	5.3	—	—	—	B9A	32	U.S.A.
7558	6.3	0.8	250	40	250	3	18	—	5.3	—	—	—	B9A	32	U.S.A.



OUTPUT VALVES—Contd.

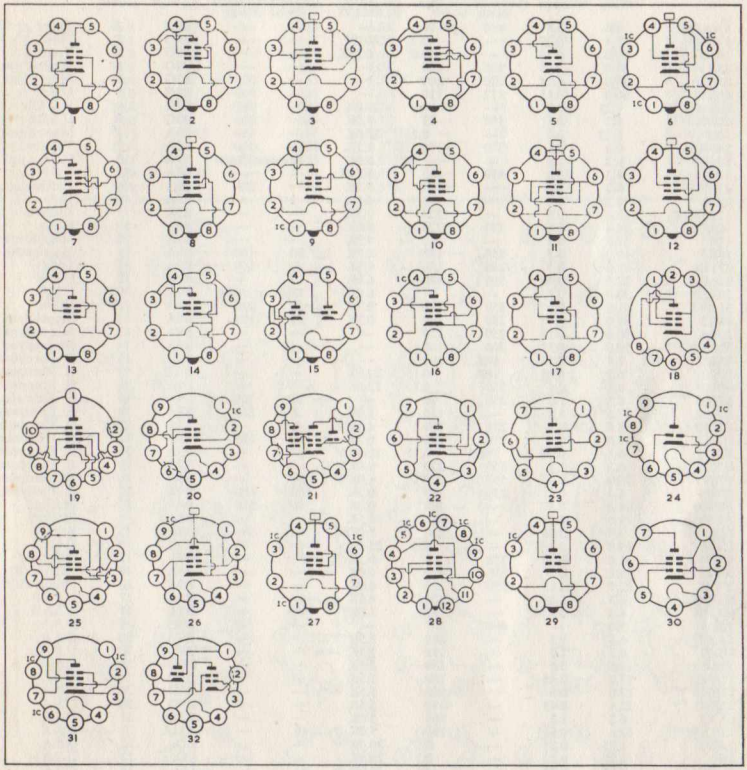
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	1/mA	SCREEN Volts	1/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Anode Load Ω	Output W	Dis %	BASE Type	Ref.	Maker
7683	6.3	0.15	300	12.6	250	2.2	0.5	28.0K	5.0	—	—	—	B9A	1	U.S.A.
7687	6.3	0.5	220	10	130	3.4	62	500.0K	5.8	—	—	—	B9A	2	U.S.A.
7695	50.0	0.15	130	100	130	13.0	11	7.0K	11.0	1.1K	4.5	11	B9A	3	U.S.A.
7701	13.6	0.16	250	28	250	3.1	12.5	31.0K	3.6	—	—	—	B9A	4	U.S.A.
7733	6.3	0.6	250	25	150	6.0	68	110.0K	12.0	Video amp.		—	B9A	5	U.S.A.
	12.6	0.3													
7734	6.3	0.9	150	5.5	150	1.7	2.0	340.0K	3.2	—	—	—	B9A	6	U.S.A.
7754	6.3	1.2	130	100	130	13.0	11	7.0K	11.0	1.1K	4.5	11	B9A	3	U.S.A.
7868	6.3	0.8	450	—	450	—	21	29.0K	10.2	—	44.0PP	5	B9A	7	U.S.A.
E84L	6.3	0.76	250	49.5	250	10.8	135	40.0K	11.3	5.2K	5.7	10	B9A	8	European
E7033	6.3	1.05	250	32	250	2.4	38.5	—	4.6	Line timebase output			B9A	9	E. European
E7034	6.3	0.71	180	36	180	4.6	2.9	100.0K	10.0	Video amp.		—	B9A	10	E. European
E7035	6.3	0.76	250	48	250	5.5	135	40.0K	11.3	4.5K	5.7	10	B9A	8	E. European
E7036	6.3	0.76	200	64	200	3.2	215	23.0K	10.0	2.5K	5.3	10	B9A	8	E. European
E7041	21.5	0.3	170	45	170	3.0	24	10.0K	6.5	Line timebase amp.			B9A	9	E. European
E7043	15.0	0.3	170	36	170	5.0	2.3	100.0K	10.0	Video amp.		—	B9A	10	E. European
E7044	16.0	0.3	200	34	200	3.8	6.0	55.0K	10.0	7.0K	4.4	10	B9A	8	E. European
E7045	45.0	0.1	170	70	170	5.0	170	40.0K	10.0	2.4K	5.2	10	B9A	8	E. European
E7053	6.3	0.78	250	28	250	6.5	22.5	40.0K	5.0	9.0K	3.4	10	B9A	11	E. European
E7055	16.0	0.3	170	41	170	9.0	11.5	20.0K	7.5	3.9K	3.3	10	B9A	11	E. European
E7059	50.0	0.1	200	35	200	7.0	16	40.0K	6.8	5.6K	3.5	10	B9A	11	E. European
E7087	15.0	0.3	170	18	170	3.1	2.1	100.0K	11.0	—	—	—	B9A	12	E. European
E7088	6.3	0.7	170	18	170	3.1	2.1	100.0K	11.0	—	—	—	B9A	12	E. European
ECL85	6.3	0.85	170	41	170	2.7	15	25.0K	7.5	Video amp.		—	B9A	13	European
ECL86	6.3	0.7	250	36	250	6.0	7	48.0K	10.0	7.0K	4.0	10	B9A	14	European
EL183	6.3	0.6	150	40	220	8.0	2.1	20.0K	25.0	Video amp.		—	B9A	15	Radio-technique
	12.6	0.3													
M3057	6.3	0.75	200	30	200	4.1	4.5	90.0K	9.0	7.0K	2.5	—	B9A	16	Toshiba
N155	6.3	0.2	225	26	225	4.1	10.8	90.0K	3.2	9.0K	2.5	10	B9A	8	G.E.C.
PCE80	10.0	0.3	180	10	180	—	—	—	12.5	Sync. separator			B9A	17	European
PCE82	10.0	0.3	180	10	180	—	—	—	12.5	Sync. separator			B9A	17	European
PCE800	9.4	0.3	170	10	170	—	2.0	—	7.5	—	—	—	B9A	17	European
PCL85	17.8	0.3	170	41	170	2.7	15	25.0K	7.5	Video amp.		—	B9A	13	European
PCL86	14.7	0.3	250	36	250	6.0	7.0	48.0K	10.0	7.0K	4.0	10	B9A	14	European
PCL88	16.0	0.3	200	—	200	—	—	—	—	Frame scanning			B9A	11	European
UCL86	44.0	0.1	250	36	250	6.0	7.0	48.0K	10.0	7.0K	4.0	10	B9A	14	European
XCL82	8.0	0.6	170	41	170	8.0	11.5	16.0K	7.5	3.9K	3.3	10	B9A	11	Philips (B)
XCL84	7.5	0.6	170	18	170	3.1	2.1	100.0K	11.0	—	—	—	B9A	12	Philips (B)
XCL86	7.5	0.6	250	36	250	6.0	7.0	48.0K	10.0	7.0K	4.0	10	B9A	14	Philips (B)
XL84	8.0	0.6	250	48	250	5.5	7.3	38.0K	11.3	5.2K	5.7	10	B9A	8	Philips (B)
XL86	8.0	0.6	170	70	170	5.0	12.5	23.0K	10.0	2.4K	5.6	10	B9A	18	Philips (B)
YCL82	10.0	0.45	170	41	170	8.0	11.5	16.0K	7.5	3.9K	3.3	10	B9A	11	Philips (B)
YCL84	10.0	0.45	170	18	170	3.1	2.1	100.0K	11.0	—	—	—	B9A	12	Philips (B)
YCL86	10.0	0.45	250	36	250	6.0	7.0	48.0K	10.0	7.0K	4.0	10	B9A	14	Philips (B)
YL84	10.0	0.45	250	48	250	5.5	7.3	38.0K	11.3	5.2K	5.7	10	B9A	8	Philips (B)
YL86	10.0	0.45	170	70	170	5.0	12.5	23.0K	10.0	2.4K	5.6	10	B9A	18	Philips (B)
6I14IT	6.3	0.76	250	48	250	5.5	7.3	38.0K	11.3	5.2K	5.7	10	B9A	8	U.S.S.R.
6I15IT	6.3	0.76	300	30	150	4.5	—	100.0K	14.7	—	—	—	B9A	19	U.S.S.R.
6I18IT	6.3	0.8	200	45	200	8.5	10.4	20.0K	9.0	3.0K	4.0	6	B9A	8	U.S.S.R.
16TI18IT	16.5	0.3	200	45	200	8.5	10.4	20.0K	9.0	3.0K	4.0	6	B9A	8	U.S.S.R.
6GB5	6.3	1.3	75	440	200	37	10	Horizontal amplifier					B9D	20	U.S.A.
14GB5	14.0	0.3	75	440	200	37	10	Horizontal amplifier					B9D	20	U.S.A.
28GB5	28.0	0.3	75	440	200	37	10	Horizontal amplifier					B9D	20	U.S.A.
E55L	6.3	0.6	125	50	125	5.5	3	20.0K	45.0	—	—	—	B9D	21	Mullard
EL500	6.3	1.3	75	440	200	37	10	Horizontal amplifier					B9D	20	European
PL500	28.0	0.3	75	440	200	37	10	Horizontal amplifier					B9D	20	European
XL500	14.0	0.6	75	440	200	37	10	Horizontal amplifier					B9D	20	European
6EZ5	6.3	0.8	250	13	250	3.5	20	50.0K	4.1	Vert. def. amp.			I.O.	22	U.S.A.
6FE5	6.3	1.2	130	94	130	15	12.5	8.0K	9.5	1.0K	4.2	12	I.O.	23	U.S.A.
6FN5	6.3	1.65	200	110	150	5.0	22.5	10.0K	10.0	Horizontal amp.			I.O.	24	U.S.A.
6FV5	6.3	1.65	100	150	100	6.0	8.0	4.0K	21.0	Line output amp.			I.O.	24	U.S.A.
6FW5	6.3	1.2	230	75	—	—	—	20.0K	6.6	Horizontal amp.			I.O.	25	U.S.A.
6G–A4	6.3	0.75	250	50	—	—	18.5	1.4K	7.0	5.0K	2.2	—	I.O.	27	Toshiba
6G–B3A	6.3	1.2	100	100	100	7.0	7.7	5.3K	14.0	—	—	—	I.O.	30	Toshiba
6G–B6	6.3	1.2	250	65	150	2.1	22.5	18.0K	6.0	—	—	—	I.O.	28	Toshiba
6G–B7	6.3	1.2	100	100	100	7.0	7.7	5.3K	14.0	—	—	—	I.O.	28	Toshiba
6G–B8	6.3	1.5	250	150	250	28.0	8.0	15.0K	20.0	1.6K	15.0	—	I.O.	23	Toshiba
6G–B9	6.3	1.5	250	75	150	2.4	22.5	20.0K	6.6	—	—	—	I.O.	28	Toshiba
6GC6	6.3	1.2	250	75	150	2.4	22.5	20.0K	6.6	Horizontal amp.			I.O.	26	U.S.A.
6GW6	6.3	1.2	60	390	Horizontal amp.								I.O.	28	U.S.A.
11E1	6.3	1.2	250	50	250	4.0	18	—	7.3	4.3K	4.4	3	I.O.	29	E. European
12CD6	12.6	1.25	175	75	175	5.5	55	7.2K	7.7	Line timebase amp.			I.O.	31	U.S.A.

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	1/mA	SCREEN Volts	1/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Anode Load Ω	Output W	Dis %	BASE Type	Ref.	Maker
12E1	6.3	1.6	150	200	150	12.0	9.0	—	—	—	—	—	I.O.	28	E. European
12E13	6.3	1.8	250	140	250	—	—	12.0K	11.0	6.0K	50PP	2	I.O.	23	Mazda
12G–B3	12.6	0.6	100	100	100	7.0	7.7	5.3K	14.0	—	—	—	I.O.	30	Toshiba
12G–B6	12.6	0.6	250	65	150	2.1	22.5	18.0K	6.0	—	—	—	I.O.	28	Toshiba
12G–B7	12.6	0.6	100	100	100	7.0	7.7	5.3K	14.0	—	—	—	I.O.	28	Toshiba
12GC6	12.6	0.6	250	75	150	2.4	22.5	20.0K	6.6	Horizontal amp.			I.O.	26	U.S.A.
12GW6	12.6	0.6	250	70	150	2.1	22.5	15.0K	7.1	Horizontal amp.			I.O.	28	U.S.A.
13CM5	12.8	0.6	100	100	100	7.0	—	5.0K	14.0	Horizontal amp.			I.O.	28	U.S.A.
17DQ6B	16.8	0.45	465	83	140	12.3	28	—	—	Time base amp.			I.O.	28	U.S.A.
17FV5	17.5	0.6	100	150	100	6.0	8.0	4.0K	21.0	Line output amp.			I.O.	24	U.S.A.
17GW6	16.8	0.45	250	70	150	2.1	22.5	15.0K	7.1	Horizontal amp.			I.O.	28	U.S.A.
25F7	25.0	0.3	170	100	170	8.8	21	5.5K	11.0	Horizontal amp.			I.O.	28	Magnadyne
25G–B6	25.0	0.3	250	65	150	2.1	22.5	18.0K	6.0	—	—	—	I.O.	28	E. European
35FN5	35.0	0.3	200	110	150	5.0	22.5	10.0K	10.0	Horizontal amp.			I.O.	24	U.S.A.
35FV5	35.0	0.3	100	150	100	6.0	8.0	4.0K	21.0	Line output amp.			I.O.	24	U.S.A.
50FE5	50.0	0.15	130	94	130	15.0	12.5	8.0K	9.5	1.0K	4.2	12	I.O.	23	U.S.A.
5516	6.0	0.7	600	100	400	—	—	—	4.0	—	—	—	I.O.	32	U.S.A.



OUTPUT VALVES—Contd.

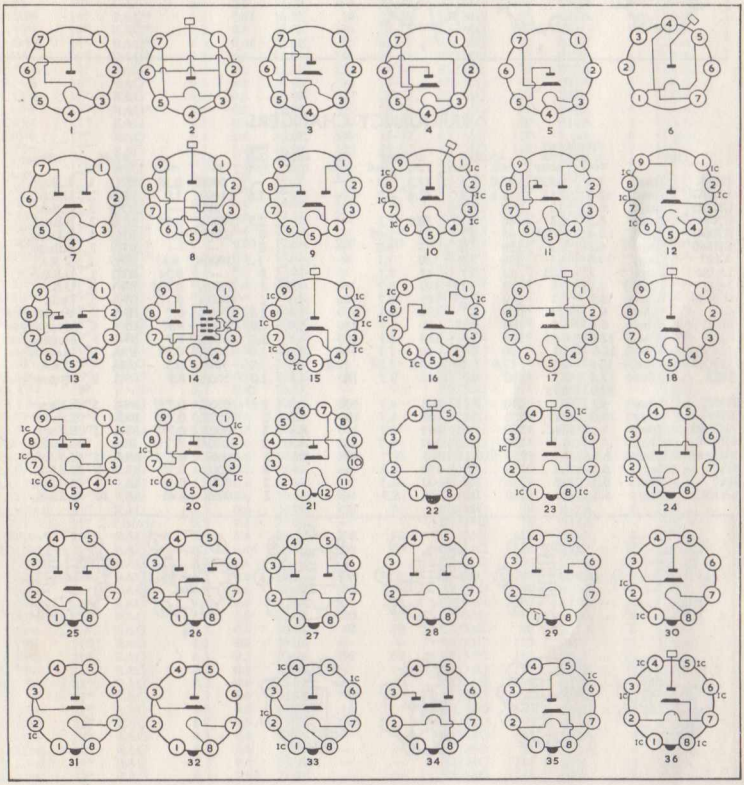
Type	FILAMENT or HEATER		ANODE		SCREEN		Neg. Grid	ra	gm	Anode Load	Output	Dis	BASE		Maker
	Volts	Amps	Volts	I/mA	Volts	I/mA	Volts	KΩ	mA/V	Ω	W	%	Type	Ref.	
6000	26.5	0.28	250	70	—	—	—	—	8.0	—	—	—	I.O.	1	U.S.A.
7184	6.3	0.45	250	47	250	7.0	12.5	52.0K	4.1	5.0K	4.5	8	I.O.	2	U.S.A.
7212	6.3	1.25	600	100	—	—	—	—	7.0	8.0K	22.0	—	I.O.	3	U.S.A.
7355	6.3	0.8	250	74	225	16.5	15	42.0K	7.6	2.5K	9.0	15	I.O.	4	U.S.A.
7358	6.3	1.25	3000	1500	Transmitter modulation				7.0	—	—	—	I.O.	3	U.S.A.
7408	6.3	0.45	250	47	250	7.0	12.5	50.0K	4.1	5.0K	4.5	7.0	I.O.	5	U.S.A.
7534	6.3	1.7	250	100	150	4.0	15.5	10.0K	25.0	—	—	—	I.O.	6	U.S.A.
7561	25.0	0.3	115	55	115	2.4	140	—	10.0	8.0K	2.5	10	I.O.	2	U.S.A.
7581	6.3	0.9	350	66	250	7.0	18	33.0K	5.2	4.2K	10.8	15	I.O.	2	U.S.A.
7591	6.3	0.8	300	75	300	15.0	10	29.0K	10.2	3.0K	11.0	13	I.O.	7	U.S.A.
7607	6.3	1.6	300	80	225	6.0	17	—	8.0	40.0K	—	—	I.O.	3	U.S.A.
7751	6.3	1.2	100	100	100	7.0	—	5.0K	14.0	—	—	—	I.O.	5	U.S.A.
7867	6.3	2.5	250	81	90	6.0	120	12.0K	10.0	3.0K	7.5	10	I.O.	8	U.S.A.
A2738	6.3	1.27	250	50	180	5.0	14	—	10.0	Video output			I.O.	9	G.E.C.
E130L	6.3	1.7	250	100	150	4.0	15.5	10.0K	25.0	—	—	—	I.O.	6	European
E7032	6.3	1.5	250	100	250	15.0	106	15.0K	11.0	2.0K	11.0	10	I.O.	10	E. European
E7040	25.0	0.3	170	100	170	8.8	21.0	5.5K	11.0	—	—	—	I.O.	12	E. European
E7081	6.3	1.2	170	100	170	8.8	21.0	5.5K	11.0	—	—	—	I.O.	12	E. European
EL136	6.3	1.65	100	150	100	6.0	8	4.0K	21.0	Line output amp.			I.O.	11	Mullard
EL300	6.3	1.65	200	110	150	5.0	22.5	10.0K	10.0	Horizontal amp.			I.O.	11	European
KT77	6.3	1.4	250	100	250	10.0	—	23.0K	11.5	—	—	—	I.O.	2	G.E.C.
PL136	35.0	0.3	100	150	100	6.0	8	4.0K	21.0	Line output amp.			I.O.	11	Mullard
PL300	35.0	0.3	200	110	150	5.0	22.5	10.0K	10.0	Horizontal amp.			I.O.	11	European
XL36	12.8	0.6	100	100	100	7.0	—	5.0K	14.0	Horizontal amp.			I.O.	12	Philips (B)
XL136	17.5	0.6	100	150	100	6.0	8.0	4.0K	21.0	Line output amp.			I.O.	11	Philips (B)
2П1	2.0	0.185	120	4.1	120	0.74	2.5	150.0K	1.8	30.0K	0.15	—	I.O.	13	U.S.S.R.
2П1М	1.2 2.4	0.12 0.06	90	9.5	90	2.1	4.5	100.0K	2.15	10.0K	0.27	—	I.O.	14	U.S.S.R.
2П3	2.0	0.32	160	10.0	120	1.7	6	80.0K	2.0	20.0K	0.5	—	I.O.	13	U.S.S.R.
6Ц5С	6.3	2.5	250	106	—	—	26.5	—	—	6.0K	13.0	—	I.O.	15	U.S.S.R.
6П2	6.3	0.45	250	47	250	7.0	12.5	52.0K	4.1	5.0K	4.5	8	I.O.	2	U.S.S.R.
6П3С	6.3	0.9	350	66	250	7.0	18	33.0K	5.2	4.2K	10.8	15	I.O.	2	U.S.S.R.
6П6Б	6.3	0.7	285	38	285	12.0	20	78.0K	2.5	7.0K	4.8	9	I.O.	2	U.S.S.R.
6П13С	6.3	1.3	200	60	200	8.0	19	25.0K	8.5	—	—	—	I.O.	8	U.S.S.R.
12П6	12.6	0.15	250	32	250	5.5	12.5	70.0K	3.0	7.5K	3.4	7	I.O.	2	U.S.S.R.
BF451	45.0	0.1	170	53	170	10.0	10.4	20.0K	10.0	3.0K	4.2	10	B8A	16	F. Mazda
DL101	1.4 2.8	0.1 0.05	120	10	120	1.65	5.6	8.0K	2.5	12.0K	0.6	12	B8A	17	E. European
PL11	17.5	0.3	170	53	170	10.0	10.4	20.0K	9.0	3.0K	4.0	6	G8A	18	E. European
FL152	12.6	0.8	800	50	250	1.0	800Ω	—	4.0	—	—	—	G10G	19	E. European
6F28	6.3	0.3	70	40	180	—	Video output tube			—	—	—	B9A	20	Thorn-A.E.I.
ECLL800	6.3	0.6	250	2 × 26	250	2 × 4.5	9.0	80.0K	6.0	9K.PP	9.2	5	B9A	21	Lorenz
6MP2	6.3	0.45	180	25	180	5.0	6.0	100.0K	5.5	6.0K	2.0	—	B7G	22	Japanese
50HK6	50.0	0.15	110	50	110	8.5	7.5	10.0K	7.5	2.5K	1.9	9	B7G	23	U.S.A.
6RA2	6.3	0.76	150	100	—	—	31.0	0.4K	8.5	0.75K	2.7	—	B9A	24	Japanese
16GK6	16.0	0.3	250	48	250	5.5	7.3	38.0K	11.3	5.2K	5.7	10	B9A	25	U.S.A.
EL502	6.3	1.7	100	—	100	—	Horizontal amp.		17.0	—	—	—	B9A	26	European
E130L	6.3	1.7	250	100	150	18	15.5	10.0K	27.5	2.7K	11.5	10	I.O.	27	European
6GE5	6.3	1.2	250	75	150	2.4	22.5	20.0K	6.6	Horizontal def. amp.			B12A	28	U.S.A.
12GE5	12.6	0.6	250	75	150	2.4	22.5	20.0K	6.6	Horizontal def. amp.			B12A	28	U.S.A.
PL302	25.0	0.3	170	100	170	8.8	21.0	5.5K	11.0	Horizontal def. amp.			I.O.	29	Ediswan
4GZ5	4.0	0.6	250	16	250	5.0	270Ω	150.0K	8.5	—	—	—	B7G	30	U.S.A.
EL86F	6.3	0.75	170	70	170	22	12.5	23.0K	10.0	—	—	—	B9A	31	F. Mazda
PCL800	16.0	0.3	250	30	250	10	Frame scanning		7.5	—	—	—	B9A	32	Ediswan


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

RECTIFIERS

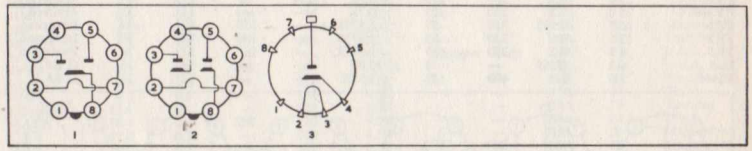
Type	FILAMENT or HEATER Volts	Amps	MAX. VOLTS PER ANODE (RMS)	MAX. I/mA	MAX. INVERSE PEAK VOLTS	MAX. RESERVOIR CAPACI-TANCE (50 c/s)	MIN. SERIES RESIST-ANCE Ω	BASE Type	Ref.	Maker
1NA31	5.0	1.5	150	20	—	—	—	B7G	1	Tesla
1Y32T	1.4	0.26	—	0.2	20.0K	—	—	B7G	2	Tesla
19A3	19.0	0.15	—	70.0	0.35K	—	—	B7G	3	Toshiba
35R1	35.0	0.15	125	100	—	—	—	B7G	4	Magnadyne
35R2	35.0	0.15	125	100	—	—	—	B7G	5	Magnadyne
60E3	60.0	0.15	117	110	—	—	—	B7G	5	U.S.A.
1LI11T	1.25	0.2	—	0.3	20.0K	—	—	B7G	6	U.S.S.R.
6LI4T	6.3	0.6	350	75	1.0K	—	—	B7G	7	U.S.S.R.
1R6	1.25	0.2	—	0.5	22.0K	—	—	B9A	8	Magnadyne
5R–K16	5.0	1.2	350	150	1.1K	—	—	B9A	9	Toshiba
6AL3	6.3	1.2	—	—	6.0K	Booster	diode	B9A	10	U.S.A.
6BW4	6.3	0.9	450	100	1.25K	—	—	B9A	11	U.S.A.
6R–K19	6.3	1.2	—	220	5.5K	—	—	B9A	10	Toshiba
6Z40	6.3	0.8	—	150	4.5K	4	—	B9A	10	Tesla
12R–K19	12.6	0.6	—	220	5.5K	—	—	B9A	10	Toshiba
16AQ3	16.4	0.6	550	220	6.0K	—	—	B9A	10	U.S.A.
17R7	17.0	0.3	—	150	4.5K	—	—	B9A	10	Magnadyne
19R3	19.0	0.3	250	180	0.7K	60	100	B9A	12	Magnadyne
19Y40	19.0	0.3	250	180	0.7K	60	100	B9A	12	Tesla
22AQ3	22.0	0.45	550	220	6.0K	—	—	B9A	10	U.S.A.
30AE3	30.0	0.3	—	—	6.0K	Booster	diode	B9A	10	U.S.A.
31AV3	31.0	0.1	250	100	0.7K	50	210	B9A	12	U.S.A.
38R3	38.0	0.15	250	180	0.7K	60	100	B9A	12	Magnadyne
50R4	50.0	0.15	250	150	—	—	—	B9A	13	Magnadyne
50RP1	50.0	0.15	300	100	—	—	—	B9A	14	Magnadyne
E7002	1.4	0.53	18K	100	—	—	—	B9A	15	E. European
E7003	6.3	0.09	18K	0.15	22.0K	—	—	B9A	15	E. European
E7005	6.3	0.6	350	0.15	22.0K	—	—	B9A	16	E. European
E7006	6.3	1.0	350	90	—	50	300	B9A	16	E. European
E7007	17.0	0.3	—	150	1.0K	8	270	B9A	10	E. European
E7010	55.0	0.1	250	150	4.5K	—	—	B9A	12	E. European
E7011	38.0	0.1	250	180	0.7K	60	125	B9A	12	E. European
E7071	6.3	0.09	18KV	0.15	22.0KV	—	—	B9A	15	E. European
E7072	6.3	1.2	550	220	6.0KV	—	—	B9A	10	E. European
E7073	26.0	0.3	550	220	6.0KV	—	—	B9A	10	E. European
EY89	6.3	0.5	250	110	0.7K	100	100	B9A	12	E. European
PY800	18.0	0.3	—	100	0.7K	50	210	B9A	10	Mullard
PY801	19.0	0.3	—	—	5.5K	—	—	B9A	10	Mullard
R20	2.0	0.35	—	150	5.25K	—	—	B9A	15	Brimar
U193	19.0	0.3	—	0.2	25.0K	—	—	B9A	10	G.E.C.
UY89	31.0	0.1	250	—	5.5K	—	—	B9A	12	European
XY88	16.4	0.6	550	220	6.0K	—	—	B9A	10	Philips (B)
YY88	22.0	0.45	550	220	6.0K	—	—	B9A	10	Philips (B)
6LI10T	6.3	1.05	—	120	4.5K	—	—	B9A	17	U.S.S.R.
6LI13T	6.3	0.8	—	120	1.6K	—	—	B9A	18	U.S.S.R.
5BC3	5.0	—	460	275	—	—	—	B9D	19	U.S.A.
6AY3	6.3	1.2	—	180	5.5K	—	—	B9D	20	U.S.A.
6BH3	6.3	1.6	—	180	5.5K	—	—	B9D	20	U.S.A.
12AY3	12.6	0.6	—	180	5.5K	—	—	B9D	20	U.S.A.
17AY3	17.0	0.45	—	180	5.5K	—	—	B9D	20	U.S.A.
17BH3	17.0	0.6	—	180	5.5K	—	—	B9D	20	U.S.A.
22BH3	22.4	0.45	—	180	5.5K	—	—	B9D	20	U.S.A.
6AX3	6.3	1.2	—	165	5.0K	—	—	B12A	21	U.S.A.
12AX3	12.6	0.6	—	165	5.0K	—	—	B12A	21	U.S.A.
1AU3	1.25	0.2	—	0.5	30.0K	—	—	I.O.	22	U.S.A.
1N2	1.25	0.2	—	0.5	28.0K	—	—	I.O.	22	U.S.A.
3AW3	3.15	0.22	—	—	30.0K	—	—	I.O.	23	U.S.A.
3DG4	3.3	3.8	275	350	1.05K	—	—	I.O.	24	U.S.A.
5AT4	5.0	4.25	550	—	2.0K	—	—	I.O.	25	U.S.A.
5CU4	5.0	3.3	—	425	0.8K	—	—	I.O.	26	U.S.A.
5DJ4	5.0	3.0	550	275	—	—	—	I.O.	27	U.S.A.
5G–K18	5.0	3.0	550	300	1.55K	—	—	I.O.	28	Toshiba
5G–K20	5.0	1.9	—	275	1.1K	—	—	I.O.	25	Toshiba
5G–K22	5.0	3.0	550	300	1.55K	—	—	I.O.	25	Toshiba
5G–K24	5.0	1.9	—	250	1.5K	—	—	I.O.	25	Toshiba
5V3A	5.0	3.0	—	380	1.55K	—	—	I.O.	29	U.S.A.
6CQ4	6.3	1.6	—	190	5.5K	—	—	I.O.	30	U.S.A.
6DM4	6.3	1.2	—	175	5.0K	—	—	I.O.	31	U.S.A.
6G–K17	6.3	1.3	—	175	4.5K	—	—	I.O.	32	Toshiba
12DM4	12.6	0.6	—	175	5.0K	—	—	I.O.	31	U.S.A.
12G–K17	12.6	0.6	—	175	4.5K	—	—	I.O.	32	Toshiba

Type	FILAMENT or HEATER Volts	Amps	MAX. VOLTS PER ANODE (RMS)	MAX. I/mA	MAX. INVERSE PEAK VOLTS	MAX. RESERVOIR CAPACITANCE (50 c/s)	MIN. SERIES RESISTANCE Ω	BASE Type	Ref.	Maker
17AX4GTA	16.8	0.45	—	125	4.0K	—	—	I.O.	32	U.S.A.
17D4A	16.8	0.45	—	185	5.0K	—	—	I.O.	33	U.S.A.
17DA4	16.8	0.45	—	155	4.4K	—	—	I.O.	32	U.S.A.
17DM4	16.8	0.45	—	175	5.0K	—	—	I.O.	31	U.S.A.
5882	12.6	0.6	350	55	1.375K	—	150	I.O.	34	U.S.A.
6853	5.0	1.7	350	125	2.0K	—	—	I.O.	25	U.S.A.
PY33	29.0	0.3	260	270	0.7K	100	56	I.O.	35	Mullard
PY300	29.0	0.3	250	325	0.7K	—	—	I.O.	35	Mullard
TE2	26.5	0.285	350	55	1.375K	—	150	I.O.	34	European
TE3	12.6	0.6	350	55	1.375K	—	150	I.O.	34	European
TE5	6.3	1.2	350	55	1.375K	—	150	I.O.	34	European
U60	6.3	0.265	—	4	30.0K	—	—	I.O.	36	G.E.C.
5Ц4M	5.0	2.0	400	135	1.55K	—	—	I.O.	28	U.S.S.R.



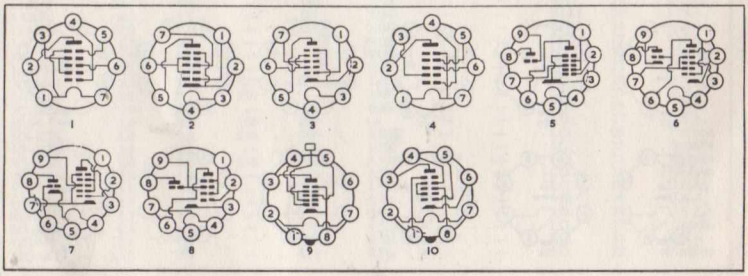
RECTIFIERS—Contd.

Type	FILAMENT or HEATER Volts	FILAMENT or HEATER Amps	MAX. VOLTS PER ANODE (RMS)	MAX. I/mA	MAX. INVERSE PEAK VOLTS	MAX. RESERVOIR CAPACI-TANCE (50 c/s)	MIN. SERIES RESIST-ANCE Ω	BASE Type	Ref.	Maker
6Ц5С	6.3	0.6	400	75	1.1K	—	—	I.O.	1	U.S.S.R.
30Ц6С	30.0	0.3	250	90	—	—	—	I.O.	2	U.S.S.R.
EY3000	6.3	1.33	—	220	3.5K	—	—	P	3	E. European
EY3000N	6.3	1.65	—	220	3.5K	—	—	P	3	E. European



FREQUENCY CHANGERS

Type		FILAMENT or HEATER Volts	FILAMENT or HEATER Amps	ANODE Volts	ANODE I/mA	SCREEN Volts	SCREEN I/mA	Osc. Volts	Anode I/mA	Neg. Grid Volts	ra MΩ	gc mA/V	BASE Type	Ref.	Maker
1R5T	(hep)	1.4	0.025	90.0	1.6	67.5	3.2	—	—	—	600K	0.28	B7G	1	E.Eupn
12GA6	(hep)	12.6	0.15	12.6	0.8	12.6	0.3	—	—	1.6	140K	1.0	B7G	2	U.S.A.
CK1217	(hep)	6.3	0.3	150	6.0						20K	—	B7G	3	U.S.A.
E7031	(hep)	6.3	0.3	100	0.75	30.0	1.1	—	—	2.5	1000K	0.95	B7G	2	E.Eupn
E7064	(hep)	1.4	0.025	65	0.7	35	1.65	—	—	0	1000K	0.3	B7G	4	E.Eupn
EH960	(hep)	6.3	0.3	150	5.0	75	9.0	—	—	0	—	—	B7G	2	E.Eupn
X107	(hep)	19.0	0.1	250	3.0	100	7.1	—	—	1.5	1000K	0.47	B7G	2	G.E.C.
1A2M	(hep)	1.2	0.03	60	0.7	45	1.1	—	—	0	—	0.24	B7G	1	U.S.S.R.
3AJ8	(t/hep)	3.15	0.6	250	3.25	103	6.7	100	4.5	2	1000K	0.775	B9A	5	U.S.A.
6CH40	(t/hep)	6.3	0.3	250	3.25	103	6.7	100	4.5	2	1000K	0.775	B9A	5	Tesla
6E4	(t/hep)	6.3	0.3	200	3.7	120	8.1	200	5.4	2.6	1000K	0.7	B9A	5	Magnadyne
6ET1	(t/hep)	6.3	0.6	100	0.75	30	1.1	100	7.0	1.0	1000K	0.95	B9A	6	Magnadyne
12E4	(t/hep)	12.6	0.15	200	3.7	120	8.1	200	5.4	2.6	1000K	0.7	B9A	5	Magnadyne
12ET1	(t/hep)	12.6	0.3	100	0.75	30	1.1	100	7.0	1.0	1000K	0.95	B9A	6	Magnadyne
12FX8	(t/hep)	12.6	0.3	12.6	0.29	12.6	1.25	12.6	1.5	3.0	500K	0.3	B9A	7	U.S.A.
25E2	(t/hep)	12.6 25.0	0.3 0.15	180	4.0	115	9.5	180	6.5	2.0	500K	0.9	B9A	8	Magnadyne
E7052	(t/hep)	6.3	0.3	250	3.25	103	6.7	100	4.5	2	1000K	0.775	B9A	5	E.Eupn
E7058	(t/hep)	19.0	0.1	250	3.25	103	6.7	100	4.5	2	1000K	0.775	B9A	5	E.Eupn
XCH81	(t/hep)	3.15	0.6	250	3.25	103	6.7	100	4.5	2	1000K	0.775	B9A	5	E.Eupn
6И1М	(t/hep)	6.3	0.3	250	3.25	103	6.7	100	4.5	2	1000K	0.775	B9A	5	U.S.S.R.
6И14М	(t/hep)	6.3	0.3	250	3.25	103	6.7	100	4.5	2	1000K	0.775	B9A	5	U.S.S.R.
6А5Б	(hep)	6.3	0.3	250	3.3	150	9.2	—	—	6	1000K	0.35	I.0	9	U.S.S.R.
6А7	(hep)	6.3	0.3	250	3.5	100	8.5	—	—	2	1000K	0.45	I.0	10	U.S.S.R.
6А10С	(hep)	6.3	0.3	250	3.5	100	8.5	—	—	2	1000K	0.45	I.0	10	U.S.S.R.

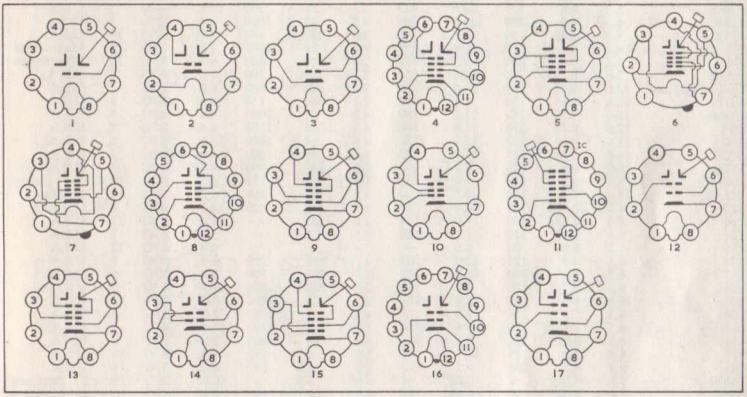


Type	Dia. in Ins.	Remarks	HEATER Volts	HEATER Amps	2nd or FINAL ANODE Volts	ACC	c off	Focus A/T or Focus Def. Method	Def. Angle	BASE Type	BASE Ref.	Maker
2FP4	2″		6.3	0.6	3.0K	—	—	ES/ES	—	—	—	U.S.A.
3AGP4	3″	A	6.3	0.6	9.0K	—	—	ES/MG	70	—	—	U.S.A.
5BRP4	5″	A	6.3	0.6	10.0K	200	28–72	ES/MG	70	—	—	U.S.A.
7AQP4	7″	A	6.3	0.6	12.0K	300	30–66	ES/MG	70	—	—	U.S.A.
8FP4	8″	RAG	6.3	0.6	18.0K	300	35–72	ES/MG	90	B12A	4	U.S.A.
8HP4	8″	RAG	6.3	0.6	14.0K	—	—	ES/MG	90	B12A	4	U.S.A.
8JP4	8″	RAG¶	6.3	0.6	20.0K	300	35–72	ES/MG	90	B8H	5	U.S.A.
8KP4	8″	GRA	6.3	0.6	18.0K	—	—	ES/MG	90	B12A	4	U.S.A.
8LP4	8″	AGR	6.3	0.6	20.0K	—	—	ES/MG	110	7 pin	6	U.S.A.
8YP4	8″	GAR¶	6.3	0.6	22.0K	300	35–72	ES/MG	110	7 pin	7	U.S.A.
9QP4A	9″	9R*	4.7	0.3	6.8K	200	28–52	ES/MG	70	B12A	8	U.S.A.
10ABP4B	10″	GRA*	6.3	0.6	12.0K	300	38–62	ES/MG	90	B12A	4	U.S.A.
10DP4	10″	GA	6.3	0.6	10.0K	250	36–84	ES/MG	50	B12A	4	U.S.A.
10RP4	10″	GA*	6.3	0.6	16.0K	300	28–72	ES/MG	50	B12A	4	U.S.A.
14AUP4	14″	RAG*	6.3	0.45	16.5K	50	30–50	ES/MG	90	B12A	4	U.S.A.
14AVP4	14″	RAG*	6.3	0.6	14.0K	300	28–72	ES/MG	110	B8H	9	U.S.A.
14AWP4	14″	RAG*	6.3	0.45	14.0K	50	32–47	ES/MG	90	B12A	4	U.S.A.
14QP4	14″	RAG*	6.3	0.6	11.0K	250	24–64	ES/MG	70	B12A	4	U.S.A.
14QP4A	14″	RAG*	6.3	0.6	11.0K	250	24–64	ES/MG	70	B12A	4	U.S.A.
16RP4A	16″	RAG*	6.3	0.6	14.0K	300	28–72	ES/MG	70	B12A	4	U.S.A.
17CKP4	17″	RAG	6.3	0.6	15.0K	300	28–72	ES/MG	110	B8H	9	U.S.A.
17CLP4	17″	RAG*	6.3	0.6	16.0K	300	28–72	ES/MG	90	B12A	4	U.S.A.
17CRP4	17″	RAG	6.3	0.45	14.0K	50	30–50	ES/MG	90	B12A	4	U.S.A.
17CSP4	17″	RAG	6.3	0.6	16.0K	300	35–72	ES/MG	110	7 pin	6	U.S.A.
17CTP4	17″	RAG	6.3	0.45	16.0K	300	35–72	ES/MG	110	B8H	9	U.S.A.
17CUP4	17″	RAG	6.3	0.3	16.0K	300	35–72	ES/MG	90	B12A	4	U.S.A.
17CVP4	17″	RAG	6.3	0.3	16.0K	300	35–72	ES/MG	110	B8H	9	U.S.A.
17CXP4	17″	RAG	6.3	0.45	16.0K	50	32–47	ES/MG	90	B12A	4	U.S.A.
17DSP4	17″	RAG	6.3	0.6	18.0K	450	62.5	ES/MG	110	B8H	9	U.S.A.
17DTP4	17″	RAG	6.3	0.6	17.5K	300	50	ES/MG	110	B8H	9	U.S.A.
17DWP4	17″	RAG*	6.3	0.6	22.0K	—	—	ES/MG	70	B12A	4	U.S.A.
17DXP4	17″	RAG*	6.3	0.45	17.6K	500	60	ES/MG	110	B8H	10	U.S.A.
17DZP4	17″	RAG*	6.3	0.6	17.6K	—	—	ES/MG	110	B8H	—	U.S.A.
17EAP4	17″	RAG	6.3	0.6	17.6K	—	—	ES/MG	70	B12A	—	U.S.A.
19ACP4	19″	RAG	6.3	0.6	20.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19AEP4	19″	RAG	6.3	0.6	17.6K	—	—	ES/MG	114	B8H	9	U.S.A.
19AFP4	19″	RAG	6.3	0.6	20.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19AHP4	19″	RAG	6.3	0.6	20.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19AJP4	19″	RAG	6.3	0.6	17.6K	—	—	ES/MG	114	7 pin	6	U.S.A.
19ALP4	19″	RAG	6.3	0.6	22.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19AQP4	19″	RAG	6.3	0.6	20.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19AUP4	19″	RAG	6.3	0.6	20.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19AXP4	19″	RAG	6.3	0.45	20.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19AYP4	19″	RAG	6.3	0.45	20.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19BFP4	19″	RAG	6.3	0.6	20.0K	—	—	ES/MG	92	B12A	4	U.S.A.
19XP4	19″	RAG	6.3	0.6	20.0K	—	—	ES/MG	114	B8H	9	U.S.A.
19ZP4	19″	RA	6.3	0.6	20.0K	—	—	ES/MG	114	B8H	13	U.S.A.
21ACP4A	21″	RAG	6.3	0.6	20.0K	300	50	MG/MG	90	B12A	16	U.S.A.
21AFP4	21″	RAG	6.3	0.6	18.0K	300	55	ES/MG	70	B12A	4	U.S.A.
21ALP4B	21″	RAG	6.3	0.6	20.0K	300	50	ES/MG	90	B12A	4	U.S.A.
21ATP4A	21″	RAG	6.3	0.6	20.0K	300	50	ES/MG	90	B12A	4	U.S.A.
21AVP4B	21″	RAG	6.3	0.6	20.0K	300	50	ES/MG	70	B12A	4	U.S.A.
21CYP22A	21″	Colour	6.3	0.6	25.0K	—	—	ES/MG	70	B14A	—	U.S.A.
21DEP4A	21″	RAG*	6.3	0.6	20.0K	300	50	ES/MG	110	B8H	9	U.S.A.
21DHP4	21″	RAG	6.3	0.45	19.8K	300	53	ES/MG	110	B8H	9	U.S.A.
21DKP4A	21″	RAG	6.3	0.6	18.0K	—	—	ES/MG	110	B8H	9	U.S.A.
21DLP4	21″	RAG	6.3	0.6	20.0K	300	50	ES/MG	90	B8H	9	U.S.A.
21DNP4	21″	RAG*	6.3	0.6	22.0K	300	53	ES/MG	90	B12A	4	U.S.A.
21DQP4	21″	RAG	6.3	0.6	20.0K	300	53	ES/MG	90	B12A	4	U.S.A.
21DRP4	21″	RAG	6.3	0.6	20.0K	300	50	ES/MG	90	B12A	4	U.S.A.
21DSP4	21″	RAG	6.3	0.6	20.0K	50	39	ES/MG	90	B12A	4	U.S.A.
21EVP4	21″	RAG	6.3	0.6	20.0K	—	—	ES/MG	110	B8H	15	U.S.A.
21EXP4	21″	RAG	6.3	0.3	20.0K	500	60	ES/MG	110	B8H	10	U.S.A.
21EYP4	21″	RAG	6.3	0.6	22.0K	—	—	ES/MG	70	B12A	4	U.S.A.
21EZP4	21″	RAG	6.3	0.6	18.0K	—	—	ES/MG	110	B12A	16	U.S.A.
21FAP4	21″	RAG	6.3	0.6	20.0K	—	—	ES/MG	110	B8H	10	U.S.A.
21FCP4	21″	RAG	6.3	0.6	18.0K	—	—	ES/MG	110	B8H	10	U.S.A.
22ANP4	22″	RAG	6.3	0.6	25.0K	—	—	ES/MG	90	B12A	4	U.S.A.
23ACP4	23″	RAG	6.3	0.6	18.0K	—	—	ES/MG	87	B12A	4	U.S.A.
23AHP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	92	B12A	4	U.S.A.
23AKP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	114	B8H	10	U.S.A.
23ALP4	23″	RAG	6.3	0.45	22.0K	—	—	ES/MG	114	B8H	9	U.S.A.

TELEVISION C.R. Tubes—Contd.

Type	Dia. in Ins.	Remarks	HEATER Volts	HEATER Amps	2nd or FINAL ANODE Volts	ACC	c off	Focus A/T or Focus Def. Method	Def. Angle	BASE Type	Ref.	Maker
23AMP4	23″	RAG	6.3	0.3	22.0K	—	—	ES/MG	114	B8H	9	U.S.A.
23AQP4	23″	RAG	6.3	0.6	19.8K	—	—	ES/MG	114	B8H	9	U.S.A.
23ARP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	110	B8H	9	U.S.A.
23ASP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	92	B12A	4	U.S.A.
23AVP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	92	B12A	4	U.S.A.
23AWP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	92	B12A	4	U.S.A.
23AYP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	110	B8H	9	U.S.A.
23BCP4	23″	RAG	6.3	0.3	22.0K	—	—	ES/MG	110	B8H	9	U.S.A.
23BP4	23″	RAG	6.3	0.6	20.0K	450	75	ES/MG	110	B8H	9	U.S.A.
23BQP4	23″	RAG*	6.3	0.6	22.0K	—	—	ES/MG	110	B8H	9	U.S.A.
23CP4	23″	RAG	6.3	0.6	20.0K	300	53	ES/MG	110	B8H	9	U.S.A.
23DP4	23″	RAG	6.3	0.6	22.0K	500	60	ES/MG	110	B8H	10	U.S.A.
23FP4	23″	RAG	6.3	0.6	22.0K	450	75	ES/MG	114	B8H	9	U.S.A.
23GP4	23″	RG	6.3	0.6	20.0K	300	50	ES/MG	110	B8H	9	U.S.A.
23HP4	23″	RAG	6.3	0.6	20.0K	—	—	ES/MG	110	B8H	9	U.S.A.
23JP4	23″	RAG	6.3	0.45	22.0K	50	43	ES/MG	110	7 pin	6	U.S.A.
23KP4	23″	RAG	6.3	0.6	20.0K	—	—	ES/MG	114	B8H	13	U.S.A.
23MP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	114	B8H	9	U.S.A.
23NP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	114	B8H	9	U.S.A.
23RP4	23″	RAG	6.3	0.3	22.0K	500	60	ES/MG	110	B8H	10	U.S.A.
23SP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	110	B8H	9	U.S.A.
23TP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	90	B12A	4	U.S.A.
23UP4	23″	RAG*	6.3	0.6	22.0K	—	—	ES/MG	110	B8H	9	U.S.A.
23VP4	23″	RAG	6.3	0.3	22.0K	450	75	ES/MG	114	B8H	9	U.S.A.
23WP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	114	B8H	9	U.S.A.
23XP4	23″	RAG	6.3	0.6	18.0K	—	—	ES/MG	90	B12A	4	U.S.A.
23YP4	23″	RAG	6.3	0.6	22.0K	—	—	ES/MG	90	B12A	4	U.S.A.
24ALP4	24″	RAG	6.3	0.6	20.0K	300	28–72	ES/MG	110	B8H	9	U.S.A.
24ANP4	24″	RAG	6.3	0.6	20.0K	300	35–72	ES/MG	90	B12A	4	U.S.A.
24AQP4	24″	RAG	6.3	0.45	20.0K	300	35–72	ES/MG	110	B8H	9	U.S.A.
24ASP4	24″	RAG	6.3	0.6	20.0K	300	35–72	ES/MG	90	B12A	4	U.S.A.
24ATP4	24″	RAG	6.3	0.6	20.0K	50	+34+49	ES/MG	90	B12A	4	U.S.A.
24ZP4	24″	RAG	6.3	0.6	20.0K	300	28–77	ES/MG	90	B12A	4	U.S.A.
25QP20	9″	G	6.3	0.6	8.0K	250	45	ES/MG	55	B8H	12	Tesla
180QQ44	7″	RG	6.3	0.3	10.0K	250	45	ES/MG	50	B8H	17	Tesla
181QP44	7″	RG	6.3	0.3	6.0K	250	45	ES/MG	50	B8H	14	Tesla
182QP44	7″	RG	6.3	0.3	10.0K	250	45	ES/MG	50	B8H	12	Tesla
350QP44	14″	RAG*	6.3	0.6	12.0K	250	45	ES/MG	70	B8H	12	Tesla
351QP44	14″	RAG*	6.3	0.3	12.0K	250	45	ES/MG	70	B12A	16	Tesla
430AB22	17″	R	6.3	0.3	20.0K	Colour tube		ES/MG	70	—	—	Tesla
430QP44	17″		6.3	0.3	14.0K	400	44–103	ES/MG	70	B12A	16	Tesla
431QQ44	17″	RAG	6.3	0.3	16.0K	400	38–94	ES/MG	110	B8H	9	Tesla
531QQ44	21″	RAG	6.3	0.3	16.0K	400	38–94	ES/MG	110	B8H	9	Tesla
7405A	17″	RAG	12.6	0.3	14.0K	300	51	ES/MG	110	B8H	9	G.E.C.
7406A	17″	RAG	12.6	0.3	15.0K	450	51	ES/MG	110	B8H	9	G.E.C.
AW21-80	8″	RAG*	6.3	0.3	10.0K	400	40–80	ES/MG	90	B12A	11	European
AW43–48	17″	RAG	6.3	0.3	14.0K	300	30–70	ES/MG	70	B12A	4	Thorn-A.E.I.
AW43-89	17″	RAG	6.3	0.3	16.0K	500	35–75	ES/MG	110	B8H	9	European
AW47–10	19″	RAG	6.3	0.3	18.0K	400	32–69	ES/MG	110	B8H	9	Mullard
AW47–90	19″	RAG	6.3	0.3	18.0K	400	38–94	ES/MG	110	B8H	9	European
AW47-91	19″	RAG	6.3	0.3	16.0K	400	32–69	ES/MG	110	B8H	9	European
AW47-97	19″	RAG	12.6	0.3	16.0K	450	55	ES/MG	114	B8H	9	European
AW53-89	21″	RAG	6.3	0.3	16.0K	500	35–75	ES/MG	110	B8H	9	European
AW59–10	23″	RAG	6.3	0.3	18.0K	400	32–69	ES/MG	110	B8H	9	European
AW59-90	23″	RAG	6.3	0.3	16.0K	400	38–94	ES/MG	110	B8H	9	European
AW59-91	23″	RAG	6.3	0.3	18.0K	400	32–69	ES/MG	110	B8H	9	European
AW59–95	23″	RAG	12.6	0.3	16.5K	450	55	ES/MG	110	B8H	9	European
C17AF	17″	RAG	4.0	0.3	17.6K	600	38–78	ES/MG	110	B8H	9	Brimar
C19AH	19″	RAG	4.0	0.3	16.5K	550	38–78	ES/MG	110	B8H	9	Brimar
C19AK	19″	RAG	6.3	0.3	16.0K	400	38–94	ES/MG	110	B8H	9	Brimar
C21AF	21″	RAG	4.0	0.3	16.0K	600	38–78	ES/MG	110	B8H	9	Brimar
C23AG	23″	RAG	4.0	0.3	16.0K	550	38–78	ES/MG	110	B8H	9	Brimar
C23AK	23″	RAG	6.3	0.3	16.0K	400	38–94	ES/MG	110	B8H	9	Brimar
CME1703	17″	RAG	12.6	0.3	14.0K	300	51	ES/MG	110	B8H	9	Thorn-A.E.I.
CME1705	17″	RAG	12.6	0.3	15.0K	450	51	ES/MG	110	B8H	9	Thorn-A.E.I.
CME1706	17″	RAG	6.3	0.3	16.0K	400	38–94	ES/MG	110	B8H	9	Thorn-A.E.I.
CME1901	19″	RAG	12.6	0.3	16.0K	450	55	ES/MG	114	B8H	9	Thorn-A.E.I.
CME1902	19″	RAG	6.3	0.3	13.0K	400	38–94	ES/MG	110	B8H	9	Thorn-A.E.I.
CME1903	19″	RAG	6.3	0.3	16.0K	400	32–69	ES/MG	110	B8H	9	Thorn-A.E.I.
CME2104	21″	RAG	12.6	0.3	17.0K	450	51	ES/MG	110	B8H	9	Thorn-A.E.I.
CME2301	23″	RAG	12.6	0.3	16.5K	450	55	ES/MG	110	B8H	9	Thorn-A.E.I.
CME2302	23″	RAG	6.3	0.3	17.0K	400	38–94	ES/MG	110	B8H	9	Thorn-A.E.I.

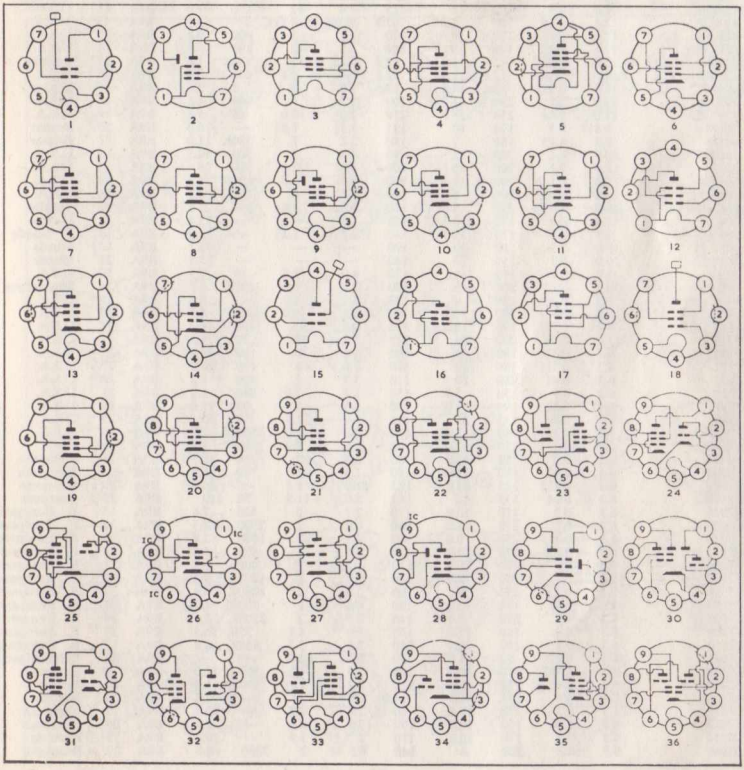
Type	Dia. in Ins.	Remarks	HEATER Volts	HEATER Amps	2nd or FINAL ANODE Volts	ACC	c off	Focus A/T or Focus Def. Method	Def. Angle	BASE Type	Ref.	Maker
CME2303	23″	RAG	6.3	0.3	17.0K	400	42–80	ES/MG	110	B8H	9	Thorn-A.E.I.
MW43-61A	17″	RAG	6.3	0.3	14.0K	400	44–100	MG/MG	70	B12A	16	European
10ЛК2Б	3.5″		1.5	2.5	20.0K	—	—	—	—	B8H	1	U.S.S.R.
13ЛК2Б	4.5″		6.3	0.55	7.0K	—	—	—	—	B8H	2	U.S.S.R.
18ЛК2Б	5.5″		6.3	0.55	15.0K	—	—	—	—	B8H	2	U.S.S.R.
18ЛК4Б	6″		6.3	0.6	6.0K	—	—	—	—	B8H	3	U.S.S.R.
18ЛК5Б	6″		6.3	0.55	4.0K	—	—	—	—	B8H	3	U.S.S.R.
23ЛК2Б	8″		6.3	0.55	10.0K	—	—	—	—	B8H	2	U.S.S.R.
30ЛК1Б	9.5″		6.3	0.55	10.0K	—	—	—	—	B8H	2	U.S.S.R.
31ЛК2Б	10″		6.3	0.6	12.0K	—	—	—	—	B8H	3	U.S.S.R.
35ЛК2Б	12″		6.3	0.3	12.0K	500	100–425	—	—	B12A	4	U.S.S.R.
43ЛК2Б	16″		6.3	0.6	14.0K	300	100–425	—	—	B12A	4	U.S.S.R.
53ЛК2Б	21″		6.3	0.6	16.0K	300	100–425	—	—	B12A	4	U.S.S.R.



SCREENED TETRODES and PENTODES

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	SCREEN Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	BASE Type	Ref.	Maker
1NE9	1.25	0.036	10	0.35	8	0.065	2.5	—	0.07	B7G	1	Tesla
1S5T	1.4	0.025	90	1.6	90	0.35	0	600	0.47	B7G	2	Tungsram
1T4T	1.4	0.025	90	3.7	67.5	1.1	—	350	0.75	B7G	3	Tungsram
2FS5	2.4	0.6	275	10.0	135	0.11	0.2	240	10.0	B7G	4	U.S.A.
2NE9	1.25	0.03	8	0.15	4.0	—	2.0	—	0.03	B7G	1	Tesla
3DT6A	3.15	0.6	150	1.1	100	2.1	560	150	0.8	B7G	5	U.S.A.
4CF6	4.2	0.45	200	9.5	150	2.8	2.0	600	6.2	B7G	6	U.S.A.
4DT6A	4.2	0.45	150	1.1	100	2.1	560	150	0.8	B7G	5	U.S.A.
4GM6	4.2	0.6	125	0.40	125	3.4	56	200	13.0	B7G	7	U.S.A.
5EW6	5.6	0.45	125	11.0	125	3.2	56	200	14.0	B7G	5	U.S.A.
5GM6	5.6	0.45	125	14.0	125	3.4	56	200	13.0	B7G	7	U.S.A.
6AW6	6.3	0.3	250	7.0	—	—	—	800	5.0	B7G	7	U.S.A.
6F32V	6.5	0.175	150	7.0	140	2.2	3	420	4.3	B7G	8	Tesla
6FD6	6.3	0.33	12	—	12	—	—	500	1.45	B7G	6	U.S.A.
6FG5	6.3	0.2	250	9.0	250	0.42	—	250	9.5	B7G	4	U.S.A.
6FS5	6.3	0.2	275	10.0	135	0.11	0.2	240	10.0	B7G	4	U.S.A.
6GM6	6.3	0.4	125	14.0	125	3.4	56	200	13.0	B7G	7	U.S.A.
6GN6	6.3	0.3	250	11.0	100	4.2	68	1000	4.4	B7G	9	U.S.A.
6GY6	6.3	0.45	150	3.7	100	3.0	180Ω	140	3.7	B7G	10	U.S.A.
6P2	6.3	0.3	250	10.6	150	4.3	68	1000	5.2	B7G	6	Magnadyne
6P4	6.3	0.3	200	9.5	150	2.8	180	600	6.2	B7G	10	Magnadyne
12AH6	12.6	0.225	300	10.0	150	2.5	160	500	9.0	B7G	6	U.S.A.
12BZ6 Vări mu	12.6	0.15	200	11.0	150	2.6	180	600	6.2	B7G	7	U.S.A.
12DT6	12.6	0.15	150	1.1	100	2.1	560	150	0.8	B7G	5	U.S.A.
12GN6	12.6	0.15	250	11.0	100	4.2	68	1000	4.4	B7G	9	U.S.A.
12P1	12.6	0.15	250	11.0	100	4.2	68	1100	4.4	B7G	6	U.S.A.
12P2	12.6	0.15	250	10.6	150	4.3	68	1000	5.2	B7G	6	U.S.A.
15EW6	15.0	0.15	125	11.0	125	3.2	56	200	14.0	B7G	5	U.S.A.
18GD6	18.0	0.1	100	5.0	100	2.0	150	500	4.3	B7G	6	U.S.A.
19M–R9	19.0	0.1	120	7.0	120	1.5	2.5	350	3.5	B7G	19	Ten (Japan)
19M–R10	19.0	0.1	120	9.5	120	2.8	180	260	6.2	B7G	10	Toshiba
731A	6.3	0.175	150	7.0	140	2.2	330	420	4.3	B7G	6	U.S.A.
6186	6.3	0.375	250	7.0	150	2.0	200	—	5.0	B7G	11	U.S.A.
6187	6.3	0.19	120	5.2	120	3.5	2.0	—	3.2	B7G	7	U.S.A.
6395	1.2	0.05	90	2.0	—	—	—	—	0.9	B7G	12	U.S.A.
6676	6.3	0.3	125	13.0	125	3.7	56	280	8.0	B7G	7	U.S.A.
6845	6.3	0.45	300	10.0	150	2.5	160	500	9.0	B7G	6	U.S.A.
7430	6.3	0.175	150	7.0	140	2.2	330	420	4.3	B7G	6	U.S.A.
7498	6.3	0.3	250	10.0	250	2.5	2	1000	7.5	B7G	13	U.S.A.
7543	6.3	0.3	250	10.8	150	4.3	1	1000	5.2	B7G	6	U.S.A.
7693	6.3	0.15	250	7.4	150	2.9	100	1300	4.6	B7G	7	U.S.A.
7694	6.3	0.15	250	9.2	100	3.3	80	1000	3.6	B7G	7	U.S.A.
7717	6.3	0.2	125	10.0	80	1.4	1.0	125	8.0	B7G	14	U.S.A.
7732	6.3	0.3	200	9.5	150	2.8	2.0	600	6.2	B7G	10	U.S.A.
DR960	1.1	0.042	6	0.08	4.0	0.05	3.0	—	0.05	B7G	15	E. European
E7062	1.4	0.025	90	1.65	90	0.5	0	1400	0.85	B7G	16	E. European
E7066	1.4	0.025	90	1.1	90	0.4	0	1600K	0.4	B7G	2	E. European
WE731A	6.3	0.175	150	7.0	140	2.2	330	420	4.3	B7G	6	U.S.A.
XF94	3.15	0.6	250	10.8	150	4.3	1	1000	5.2	B7G	6	Philips (B)
1K2П	1.2	0.3	90	3.5	67.5	1.4	0	500	0.9	B7G	17	U.S.S.R.
1Б2П	1.2	0.3	60	0.9	45	0.18	0	1000	0.55	B7G	2	U.S.S.R.
2Ж27П	2.2	0.057	120	4.0	45	0.7	0	1600	2.2	B7G	18	U.S.S.R.
2П29П	2.2	0.11	120	2.0	45	0.3	0	300	1.2	B7G	18	U.S.S.R.
2HR8	2.1	0.6	250	3.0	140	0.55	2	2500	1.85	B9A	20	U.S.A.
3BX6	3.15	0.6	170	10.0	170	2.5	2	400	7.4	B9A	21	U.S.A.
3BY7	3.15	0.6	250	8.0	85	2.0	1.8	500	5.7	B9A	21	U.S.A.
3EH7	3.15	0.6	200	12.0	90	4.2	2	500	12.5	B9A	21	U.S.A.
3EJ7	3.15	0.6	200	10.0	200	3.8	2.5	350	15.0	B9A	21	U.S.A.
3GS8	3.15	0.6	100	2 × 2.0	67.5	2 × 3.6	Sync. separator			B9A	22	U.S.A.
4BL8	4.5	0.6	170	10	170	2.8	2.0	400	6.2	B9A	23	U.S.A.
4CF8	4.5	0.3	250	3.0	140	0.6	2.0	2500	2.0	B9A	20	U.S.A.
4EH7	4.2	0.45	200	12.0	90	4.2	2	500	12.5	B9A	21	U.S.A.
4EJ7	4.2	0.45	200	10.0	200	3.8	2.5	350	15.0	B9A	21	U.S.A.
4GS8	4.2	0.45	100	2 × 2.0	67.5	2 × 3.6	Sync. separator			B9A	22	U.S.A.
5EU8	4.7	0.6	125	12.0	125	4.0	1	80	6.4	B9A	24	U.S.A.
5FG7	4.7	0.6	125	11	125	4.0	1.0	180	6.0	B9A	25	U.S.A.
6DY7	6.3	0.8	250	50	250	3.0	12.5	28	6.0	B9A	26	U.S.A.
6EH7	6.3	0.3	200	12.0	90	4.2	2	500	12.5	B9A	21	U.S.A.
6EJ7	6.3	0.3	200	10.0	200	3.8	2.5	350	15.0	B9A	21	U.S.A.
6EL7	6.3	0.34	170	10.0	170	2.6	1.8	—	8.8	B9A	27	U.S.A.
6EQ7	6.3	0.3	100	9.0	100	3.5	0	250	3.8	B9A	28	U.S.A.
6EU8	6.3	0.45	125	12.0	125	4.0	1	80	6.4	B9A	24	U.S.A.

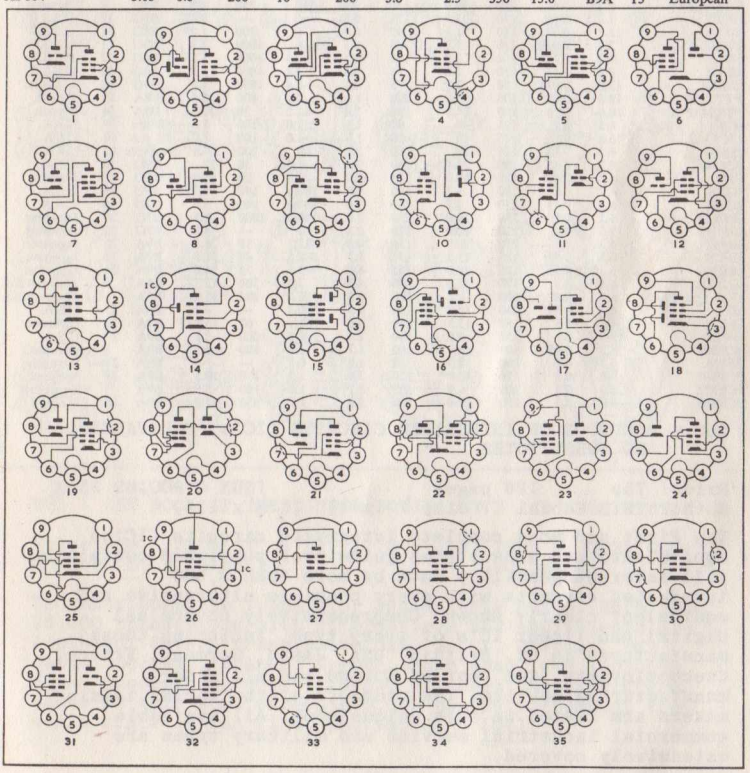
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	SCREEN Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	BASE Type	Ref.	Maker
6F25	6.3	0.3	170	11.5	90	2.8	1.5	—	12.5	B9A	21	Mazda
6F26	6.3	0.3	250	10.0	100	2.5	2.0	500	6.0	B9A	21	Mazda
6F41	6.3	0.3	170	10.0	170	2.5	2.0	400	7.4	B9A	21	Tesla
6FA7	6.3	0.3	100	3.8	100	1.7	50.0	90	3.2	B9A	29	U.S.A.
6FG7	6.3	0.45	125	11.0	125	4.0	1.0	180	6.0	B9A	25	U.S.A.
6FH8	6.3	0.45	250	7.3	250	1.4	2.0	750	4.4	B9A	30	U.S.A.
6GE8	6.3	0.9	155	5.5	150	1.7	2.0	340	3.2	B9A	31	U.S.A.
6GJ8	6.3	0.6	125	12.0	125	4.5	1.0	150	7.5	B9A	23	U.S.A.
6GN8	6.3	0.75	200	25.0	150	5.5	100	60	11.5	B9A	32	U.S.A.
6GS8	6.3	0.3	100	2 × 2.0	67.5	2 × 3.6	Sync. separator			B9A	22	U.S.A.
6HC8	6.3	1.2	250	38	250	3.0	18.0	55	5.1	B9A	33	U.S.A.
6HF8	6.3	0.75	200	25	125	7.0	68Ω	75	12.5	B9A	32	U.S.A.
6HG8	6.3	0.38	170	10	150	3.3	1.2	350	12.0	B9A	34	U.S.A.
6HJ8	6.3	0.45	125	11.5	125	3.6	6.0	200	9.3	B9A	35	U.S.A.
6HS8	6.3	0.3	100	2	67.5	4.4	0	—	1.1	B9A	36	U.S.A.



SCREENED TETRODES and PENTODES—Contd.

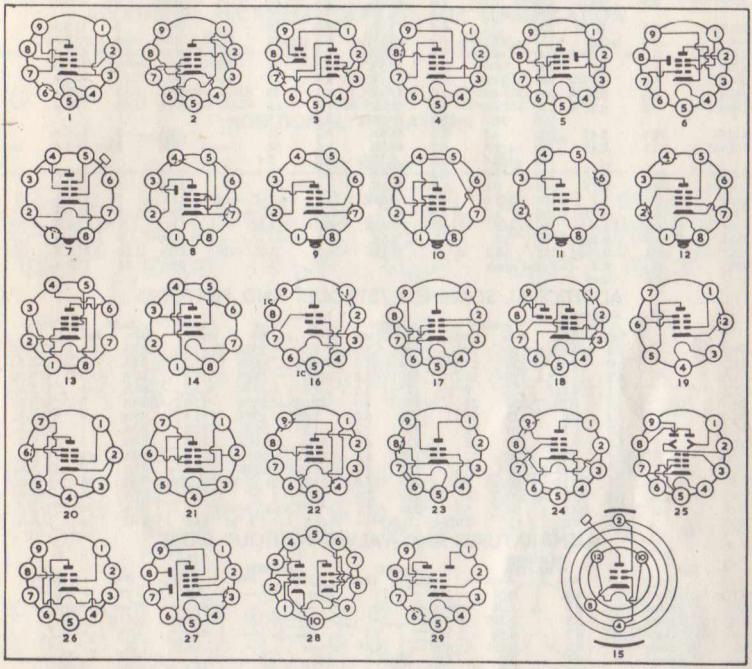
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	l/mA	SCREEN Volts	l/mA	Neg. Grid Volts	ra KΩ	gm mA/V	BASE Type	Ref.	Maker
6R–A3	6.3	1.0	100	—	100	Voltage regulator			12.5	B9A	1	Toshiba
6R–DHV1	6.3	0.48	250	9.0	100	3.0	1.0	250	3.5	B9A	2	Toshiba
6R–HV1	6.3	0.48	250	9.0	100	3.0	1.0	250	3.5	B9A	3	Toshiba
6R–R8C	6.3	0.3	150	13.0	150	4.5	110	150	12.5	B9A	4	Ten (Japan)
6TP1	6.3	0.45	250	10	110	3.5	68	400	5.2	B9A	5	Magnadyne
6TP3	6.3	0.6	200	8	100	2.0	3	500	3.5	B9A	6	Magnadyne
6TP4	6.3	0.45	250	10	110	3.5	68	400	5.2	B9A	7	Magnadyne
6TP5	6.3	0.6	200	9	100	2.0	1	400	4.5	B9A	8	Magnadyne
7HG8	8.0	0.3	170	10	150	3.3	1.2	350	12.0	B9A	9	U.S.A.
8CF40	9.0	0.3	170	10	170	2.8	2.0	400	6.2	B9A	5	Tesla
8ET7	8.0	0.6	200	25	150	5.5	100	60	11.5	B9A	10	U.S.A.
8GN8	8.0	0.6	200	25	150	5.5	100	60	11.5	B9A	11	U.S.A.
9C8	9.0	0.3	170	10	170	2.8	2.0	400	6.2	B9A	5	U.S.A.
9TP4	9.4	0.3	250	10	110	3.5	68	400	5.2	B9A	7	Magnadyne
10HF8	10.5	0.45	250	18	250	2.0	—	—	12.5	B9A	11	U.S.A.
12AU8	12.6	0.3	200	15	125	3.4	82	150	7.0	B9A	11	U.S.A.
12BU8	12.6	0.15	100	2.2	67.5	Sync. & A.G.C.		T.V.	1.5	B9A	12	U.S.A.
12BX6	12.6	0.15	170	10	170	2.5	2	400	7.4	B9A	13	U.S.A.
12EQ7	12.6	0.15	100	9	100	3.5	0	250	3.8	B9A	14	U.S.A.
12F8	12.6	0.15	12.6	1.0	12.6	0.38	0	330	1.0	B9A	15	Toshiba
12FR8	12.6	0.32	12.6	1.9	12.6	0.7	0.8	400	2.7	B9A	16	U.S.A.
12J8	12.6	0.35	12.6	14.0	12.6	3.0	0	4	5.4	B9A	17	Brimar
17FL8	17.0	0.11	200	11.0	100	3.3	1.5	600	4.5	B9A	18	U.S.A.
17HC8	17.0	0.44	250	38.0	250	3.0	18.0	55	5.1	B9A	19	U.S.A.
18D2	9.45	0.3	170	10	125	3.5	1.65	—	10.0	B9A	20	Brimar
18D3	6.3	0.45	150	7	150	2.2	2	350K	11.0	B9A	21	Brimar
19EH7	18.9	0.1	200	12	90	4.2	2	500	12.5	B9A	13	U.S.A.
19EJ7	18.9	0.1	200	10	200	3.8	2.5	350	15	B9A	13	U.S.A.
19FL8	19.0	0.1	200	11	100	3.3	1.5	600	4.5	B9A	18	U.S.A.
20EQ7	20.0	0.1	100	9	100	3.5	0	250	3.8	B9A	14	U.S.A.
20R–DHV1	20.0	0.4	250	9.0	100	3.0	1.0	250	3.5	B9A	2	Toshiba
30C17	7.4	0.3	170	6.4	155	2.0	—	—	15.0	B9A	22	Mazda
30F27	3.7	0.3	170	13.5	140	1.7	1.25	—	15.0	B9A	13	F. Mazda
30FL12	10.0	0.3	250	10	180	—	—	—	12.5	B9A	23	Mazda
30FL13	10.0	0.3	250	10	180	—	—	—	12.5	B9A	23	Mazda
32A8	32.0	0.15	170	41	170	8.0	11.5	16	7.5	B9A	19	U.S.A.
50RP1	50.0	0.15	200	9	100	2.0	1.0	400K	4.5	B9A	24	Magnadyne
6486	6.3	0.25	120	4	120	3.3	2.0	—	3.8	B9A	25	U.S.A.
7239	6.3	0.3	300	10.5	100	2.6	5.0	300	4.2	B9A	26	U.S.A.
7643	6.3	0.33	170	10.0	170	2.8	155	400	6.2	B9A	21	U.S.A.
7716	13.6	0.35	200	24	125	5.2	68	70	10.0	B9A	11	U.S.A.
7721	6.3	0.32	190	22	160	6.0	+10	120	35.0	B9A	27	U.S.A.
7722	6.3	0.315	190	20	160	6.0	+8	100	26.0	B9A	27	U.S.A.
7731	6.3	0.45	250	10	110	3.5	1	400	5.2	B9A	28	U.S.A.
7734	6.3	0.9	150	5.5	150	1.7	2.0	340	3.2	B9A	31	U.S.A.
7737	6.3	0.32	190	13.0	150	3.3	+9	90	11.5	B9A	27	U.S.A.
7788	6.3	0.34	135	35	155	5.0	+11.5	70	50	B9A	29	U.S.A.
CV4085	6.3	0.2	250	3.0	140	0.6	2.0	2500	2.5	B9A	30	G.E.C.
CV4086	6.3	0.2	250	3.0	140	0.6	2.0	2500	2.5	B9A	30	G.E.C.
E180F	6.3	0.3	190	13.0	160	3.3	+9	90	16.5	B9A	27	European
E186F	6.3	0.32	190	13.0	150	3.3	+9	90	16.5	B9A	27	European
E282F	6.3	0.315	125	35.0	125	11.0	1.8	—	26.0	B9A	29	European
E810F	6.3	0.34	135	35	165	5.0	+11.5	70	50	B9A	29	European
E7026	6.3	0.3	170	10.0	170	2.5	2	400	7.4	B9A	13	E. European
E7027	6.3	0.2	250	3.0	140	0.6	2	2500	2.5	B9A	30	E. European
E7050	6.3	0.3	250	9.0	100	2.7	2	1000	3.8	B9A	18	E. European
E7051	6.3	0.45	170	10.0	110	3.5	1	400	5.2	B9A	21	E. European
E7056	9.5	0.3	170	10.0	110	3.5	1	400	5.2	B9A	21	E. European
E7057	19.0	0.1	250	9.0	100	2.7	2	1000	3.8	B9A	18	E. European
E7078	6.3	0.2	250	9.0	100	3.0	2	1000K	4.4	B9A	33	E. European
E7079	12.6	0.1	170	12.0	100	4.4	1	300K	4.4	B9A	33	E. European
E7108	6.3	0.2	250	3.0	140	0.5	2	2500K	2.0	B9A	30	E. European
E7109	6.3	0.3	180	13.0	150	3.0	1.1	35K	16.5	B9A	27	E. European
E7110	6.3	0.3	250	10.0	250	2.8	3.5	650K	6.8	B9A	13	E. European
E7145	6.3	0.2	50	1.85	50	0.54	2.0	—	—	B9A	30	E. European
ECF86	6.3	0.385	170	10.0	150	3.3	1.2	350	12.0	B9A	9	European
ECF804	6.3	0.45	150	7.0	150	2.2	2	350	11.0	B9A	21	Brimar
ECH84	6.3	0.3	135	1.7	14.0	0.9	0	—	2.2	B9A	32	European
EF811	6.3	0.3	170	11.5	90	2.8	1.5	—	12.5	B9A	13	European
EF812	6.3	0.34	170	10.0	170	2.6	1.8	—	8.8	B9A	35	European
EF814	6.3	0.3	170	10.0	170	2.7	1.9	—	10.0	B9A	13	European
EF866	6.3	0.2	250	3	140	0.5	2	2500	2.0	B9A	30	European

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	SCREEN Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	BASE Type	Ref.	Maker
PCE80	10.0	0.3	250	10	180	—	—	—	12.5	B9A	23	European
PCE82	10.0	0.3	250	10	180	—	—	—	12.5	B9A	23	European
PCE800	9.4	0.3	170	10	170	—	2.0	—	7.5	B9A	23	European
PCF86	8.0	0.3	170	10.0	150	3.3	1.2	350	12.0	B9A	9	European
PCF87	7.4	0.3	170	6.4	155	2.0	—	—	15.0	B9A	22	European
PCF800	9.0	0.3	200	7.6	138	2.3	—	—	8.5	B9A	22	European
PF86	4.5	0.3	250	3.0	140	0.6	2	2500	2.0	B9A	30	European
PTT216	6.3	0.3	150	12.3	150	3.7	1.75	230	13.5	B9A	34	French
UF183	18.9	0.1	200	12.0	90	4.2	2	500	12.5	B9A	13	European
UF184	18.9	0.1	200	10.0	200	3.8	2.5	350	15.0	B9A	13	European
XCF80	4.5	0.6	170	10.0	170	2.8	2	400	6.2	B9A	21	European
XCF82	4.7	0.6	170	10.0	110	3.5	1	400	5.2	B9A	21	European
XF80	3.5	0.6	170	10.0	170	2.5	2	400	7.4	B9A	13	European
XF85	3.15	0.6	250	8.0	85	2.0	1.8	500	5.7	B9A	13	European
XF86	2.15	0.6	250	3.0	140	0.6	2	2500	2.0	B9A	30	European
XF183	3.15	0.6	200	12	90	4.2	2	500	12.5	B9A	13	European
XF184	3.15	0.6	200	10	200	3.8	2.5	350	15.0	B9A	13	European



SCREENED TETRODES and PENTODES—Contd.

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	SCREEN Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	BASE Type	Ref.	Maker
YF183	4.2	0.45	200	12	90	4.2	2	500	12.5	B9A	1	European
YF184	4.2	0.45	200	10	200	3.8	2.5	350	15.0	B9A	1	European
Z749	6.3	0.3	170	10	170	2.6	1.9	—	9.2	B9A	1	G.E.C.
6Э5П	6.3	0.45	150	45	150	12.0	—	—	31.0	B9A	2	U.S.S.R.
6Ф1	6.3	0.45	170	10	170	2.8	2.0	400	6.2	B9A	3	U.S.S.R.
6Ж9П	6.3	0.32	150	20	150	4.5	—	150	22.0	B9A	4	U.S.S.R.
6Ж10П	6.3	0.3	200	6.5	100	3.5	—	100	9.5	B9A	4	U.S.S.R.
6Ж11П	6.3	0.45	150	25	150	8.0	—	100	28.5	B9A	4	U.S.S.R.
6Ж20П	6.3	0.45	150	18	150	4.0	1.1	—	17.0	B9A	5	U.S.S.R.
6Ж21П	6.3	0.35	150	17	150	4.0	1.1	—	17.0	B9A	6	U.S.S.R.
6Ж22П	6.3	0.48	150	28	150	7.0	0.8	—	30.0	B9A	6	U.S.S.R.
5A/157D	6.3	0.2	250	3.0	100	0.8	3.0	1000	1.65	I.O.	7	S.T.C.
PTT203P	18.0	0.4	200	35.0	200	5.0	5.0	43	8.5	I.O.	7	French
D121	12.6	0.1	250	5.0	125	1.6	2	1200	1.8	B8A	8	French
C30	6.3	0.4	220	16.0	150	3.0	250	250	6.5	B8G	9	Siemens
1Ж2П	1.2	0.03	70	1.1	70	0.6	0	—	0.47	B8G	10	U.S.S.R.
2Ж27П	2.2	0.057	120	1.9	45	0.4	0	700	1.25	B8G	11	U.S.S.R.
2Ж28П	2.3	0.028	120	1.9	45	0.5	0	1800	1.2	B8G	11	U.S.S.R.
4Ж1П	4.2	0.225	150	2.0	75	0.5	2.4	1000	1.5	B8G	12	U.S.S.R.
6Ж1П	6.3	0.15	150	2.0	75	0.5	2.4	1000	1.5	B8G	12	U.S.S.R.
12Ж1П	12.6	0.075	150	2.0	75	0.5	2.4	1000	1.5	B8G	12	U.S.S.R.
PTT202P	18.0	0.085	200	8.0	200	1.6	2.2	800	5.5	F8A	13	French
PTT244P	18.0	0.14	150	24.0	150	5.0	1.5	30	27.0	F8A	14	French
6C9	6.3	0.4	125	10	80	1.5	1.0	100	8.0	10 pin	30	U.S.A.
17C9	16.8	0.15	125	10	80	1.5	1.0	100	8.0	10 pin	30	U.S.A.
7587	6.3	0.15	125	10	50	2.7	68	200	10.6	Nuvistor	15	U.S.A.
A2674	6.3	0.45	190	23.4	150	9.6	1.4	36	32	B9D	16	G.E.C.
F55L	6.3	0.6	125	50.0	125	10.0	2.0	20	45.0	B9D	17	Mullard
5GX6	4.7	0.6	150	3.7	100	3.0	180Ω	140	3.7	B7G	19	U.S.A.
6GX6	6.3	0.45	150	3.7	100	3.0	180Ω	140	3.7	B7G	19	U.S.A.
6MR12	6.3	0.3	250	10.0	250	2.6	160Ω	1000	7.5	B7G	20	Japanese
19MV5	19.0	0.1	120	10.0	120	2.8	2	—	3.5	B7G	21	Japanese
6BP16	6.3	0.6	150	50.0	150	20.0	27Ω	18	26.5	B9A	22	Japanese
6BR22	6.3	0.45	135	25.0	135	8.7	+9.5	45	31.5	B9A	23	Japanese
6BR23	6.3	0.45	135	26.0	135	8.0	+9.5	75	34.0	B9A	24	Japanese
6F29	6.3	0.3	170	12.0	90	4.5	2.0	500	12.5	B9A	1	Thorn-A.E.I.
6F30	6.3	0.3	200	10.0	200	4.1	2.5	380	15.4	B9A	1	Thorn-A.E.I.
6JH8	6.3	0.5	250	14.0	250	1.5	220Ω	—	4.4	B9A	25	U.S.A.
6RR21	6.3	0.3	150	13.5	150	3.6	100Ω	60	15.0	B9A	26	Japanese
19FL8	19.0	0.1	250	9.0	100	2.7	2.0	1000	3.8	B9A	27	U.S.A.
ECF802	6.3	0.45	100	6.0	100	1.7	1.0	180	5.5	B9A	3	European
EF816	6.3	0.3	200	2.9	50	1.8	0.5	—	—	B9A	29	European
PCF801	8.0	0.3	170	10.0	120	3.0	1.2	350	10.5	B9A	18	Mullard
PCF802	9.0	0.3	100	6.0	100	1.7	1.0	180	5.5	B9A	3	European
PCF806	8.0	0.3	170	10.0	150	3.3	1.2	350	12.0	B9A	18	Mullard



BP1 - 1ST BOOK OF TRANSISTOR EQUIVALENTS AND SUBSTITUTES

Price 40p Size: 7" x 4½" (178 x 114) ISBN 0 85934 000 7
Author: B. B. Babani 80 pages

The most complete transistor equivalents guide. More than 25,000 transistors with alternatives and equivalents are included. Covers transistors made in Gt. Britain, USA, Japan, Germany, France, Europe, Hone Kong, and includes types produced by more than 120 different manufacturers. Sales of this book exceed 650,000 copies throughout the world since it was first published in 1971.

ADDITIONAL TRIODE AMPLIFIERS TOO LATE FOR CLASSIFICATION

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	1/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
4FS7	4.6	0.6	100	14.0	3.0	3.1K	5.5	17	—	B9A	1	U.S.A.
6FR7	6.3	0.925	250	1.4	3.0	40.0K	1.6	68	—	B9A	2	U.S.A.
			150	50.0	20.0	0.75K	7.2	5.4	—			
6HZ8	6.3	1.125	200	3.5	2.0	17.5K	4.0	70	—	B9A	3	U.S.A.
6JC8	6.3	0.45	125	12.0	1.0	6.0K	6.5	40	—	B9A	4	U.S.A.
6JE8	6.3	0.78	200	4.5	2.0	16.6K	4.2	70	—	B9A	3	U.S.A.
6JV8	6.3	0.6	200	4.0	2.0	17.5K	4.0	70	—	B9A	3	U.S.A.
8HG8	8.0	0.3	100	14.0	3.0	3.1K	5.5	17	—	B9A	1	U.S.A.
8JE8	8.2	0.6	200	4.5	2.0	16.6K	4.2	70	—	B9A	3	U.S.A.
10FR7	9.7	0.6	250	1.4	3.0	40.0K	1.6	68	—	B9A	2	U.S.A.
			150	50.0	20.0	0.75K	7.2	5.4	—			
11JE8	10.9	0.45	200	4.5	2.0	16.6K	4.2	70	—	B9A	3	U.S.A.
13FR7	13.0	0.45	250	1.4	3.0	40.0K	1.6	68	—	B9A	2	U.S.A.
			150	50.0	20.0	0.75K	7.2	5.4	—			
14JG8	14.0	0.15	250	2.0	2.0	41.0K	2.2	90	—	B9A	5	U.S.A.
19HV8	18.9	0.15	100	0.8	1.0	54.0K	1.3	70	—	B9A	6	U.S.A.
6528	6.3	5.0	100	185.0	4.0	0.24K	37.0	9.0 D.C. Amp.		I.O.	7	U.S.A.
7235	6.3	0.3	1500	1.5	1.0	—	0.85	D.C. Amp.		B9A	8	U.S.A.
7802	6.3	2.5	100	115	4.0	0.42K	20.0	8.5	—	I.O.	7	U.S.A.
7803	6.3	0.365	90	15	1.3	2.6K	12.5	33	—	B9A	9	U.S.A.
7861	12.6	0.175	150	8.2	—	6.4K	5.5	35	240	B9A	10	U.S.A.
7892	6.3	0.9	Pulse Amp.							B9A	11	U.S.A.
	12.6	0.45										

ADDITIONAL SCREENED TETRODES AND PENTODES

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	1/mA	SCREEN Volts	1/mA	Neg. Grid Volts	ra KΩ	gm mA/V	BASE Type	Ref.	Maker
4FS7	4.6	0.6	170	10	150	3.3	1.2	350K	1.2	B9A	1	U.S.A.
6ET7	6.3	0.75	200	25	150	5.5	100Ω	60K	11.5	B9A	27	U.S.A.
6HZ8	6.3	1.125	250	29	170	6.0	100Ω	140K	12.6	B9A	3	U.S.A.
6JC8	6.3	0.45	125	9	125	2.2	1.0	300K	5.5	B9A	4	U.S.A.
6JE8	6.3	0.78	250	22	170	4.0	82Ω	140K	12.0	B9A	3	U.S.A.
6JV8	6.3	0.6	125	22	125	4.0	1.0	100K	11.5	B9A	3	U.S.A.
8HG8	8.0	0.3	170	10	150	3.3	1.2	350K	12.0	B9A	1	U.S.A.
8JE8	8.2	0.6	250	22	170	4.0	82Ω	140K	12.0	B9A	3	U.S.A.
11JE8	10.9	0.45	250	22	170	4.0	82Ω	140K	12.0	B9A	3	U.S.A.
19HV8	18.9	0.15	125	12	125	4.0	1.0	200K	6.5	B9A	6	U.S.A.
7234	6.3	0.15	1500	5	150	2.0	1.0	1M	3.8 D.C. Amp.	B9A	28	U.S.A.
7548	6.3	0.7	300	18	50	2.0	1.5	—	26.0	B9A	29	U.S.A.
7763	6.3	0.3	90	4.2	250	3.1	I.F. Amp. limiter			B9A	30	U.S.A.
7851	2.5	0.2	11	0.016	11.0	—	2.2	1.7M	0.04	B7G	31	U.S.A.

SUBMINIATURES AND VALVES WITHOUT BASES

Type		FILAMENT or HEATER Volts	Amps	ANODE Volts	1/mA	SCREEN Volts	1/mA	Neg. Grid Volts	ra (KΩ)	gm (mA/V)
6771	Triode	6.3	0.57	250	25	—	—	1.6	3.9K	23
6897	Triode	6.3	1.05	900	90	—	—	40.0	Class C Amplifier	
7391	Triode	6.3	0.385	175	10	—	—	1.5	5.65K	11.0
7486	Triode	6.3	0.24	150	7.5	—	—	82Ω	8.5K	10.5
7625	Triode	6.3	0.215	150	0.95	—	—	1KΩ	57K	1.4
7644	Triode	6.3	0.3	175	10.0	—	—	—	7.3K	15.0
7720	Triode	6.3	0.24	150	7.5	—	—	82Ω	8.5K	10.5
7784	Triode	6.3	0.3	175	10.0	—	—	—	7.3K	15.0
7841	Diode	6.3	0.215	350 P.I.V. 5mA. D.C.						
7979	Triode	1.25	0.25	Indicator D.C. Anode 3mA. max.						
7994	Triode	6.3	0.3	100	15	—	—	82Ω	2.5K	18.0
7995	Pentode	6.3	0.3	150	8	150	2.0	100Ω	100K	13.0

ADDITIONAL OUTPUT VALVES TOO LATE FOR CLASSIFICATION

Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	1/mA	SCREEN Volts	1/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Anode Load Ω	Output W	Dis %	BASE Type	Ref.	Maker
2E24	6.3	0.65	250	35	160	2.6	8	—	—	6.0K	3.9	—	I.O.	12	U.S.A.
6GJ5	6.3	1.2	250	70	150	2.1	4.2	15.0K	7.1	Horizontal Amp.			B9A	13	U.S.A.
6GM5	6.3	0.8	300	60	300	8.0	10	29.0K	10.2				B9A	14	U.S.A.
6GT5	6.3	1.2	250	70	150	2.1	42	15.0K	7.1	Horizontal Amp.			B9A	15	U.S.A.
17GJ5	16.8	0.45	250	70	150	2.1	42	15.0K	7.1	Horizontal Amp.			B9A	13	U.S.A.
17GT5	16.8	0.45	250	70	150	2.1	42	15.0K	7.1	Horizontal Amp.			B9A	15	U.S.A.
26E6	26.5	0.3	200	61	135	3.0	14	18.0K	7.1	2.6K	6.0	—	I.O.	16	U.S.A.
28GB5	28.0	0.3	75	440	200	37.0	10	Horizontal Def. Amp.					B9A	17	U.S.A.
50HC6	50.0	0.15	110	42	115	11.5	62Ω	11.0K	14.6	3.0K	1.4	—	B7G	18	U.S.A.
6889	6.3	1.2	250	77	250	3.5	22.5	—	5.4				I.O.	19	U.S.A.
7403	6.3	1.7	600	32	300	1.5	825Ω	—	6.0	D.C. Amp.			I.O.	20	U.S.A.

ADDITIONAL OUTPUT VALVES TOO LATE FOR CLASSIFICATION—Contd.

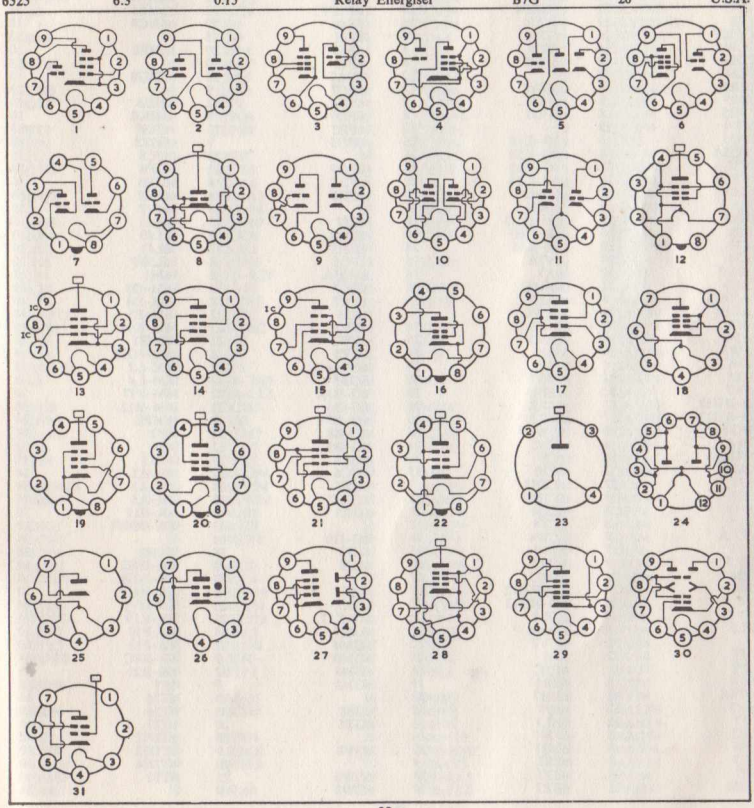
Type	FILAMENT or HEATER Volts	Amps	ANODE Volts	I/mA	SCREEN Volts	I/mA	Neg. Grid Volts	ra KΩ	gm mA/V	Anode Load Ω	Output W	Dis %	BASE Type	Ref.	Maker
7757	6.3	0.6	250	45	250	3.5	12.5	—	4.1	D.C. Amp.			B9A	21	U.S.A.
8032	13.5	0.625	600	22	165	0.6	44	—	—	6.0K	90PP	—	I.O.	22	U.S.A.

ADDITIONAL RECTIFIERS TOO LATE FOR CLASSIFICATION

Type	FILAMENT or HEATER Volts	Amps	MAX. VOLTS PER ANODE (RMS)	MAX. I/mA	MAX. INVERSE PEAK VOLTS	MAX. RESERVOIR CAPACITANCE (50 c/s)	BASE Type	Ref.	Maker
1Y2	1.5	0.29	—	—	50K P.I.V.	2mA D.C.	UX4	23	U.S.A.
5AZ3	5.0	3.0	600V RMS	—	1.7K P.I.V.	275mA D.C.	B12A	24	U.S.A.
25DK4	25.0	0.15	120V RMS	—	330 P.I.V.	100mA D.C.	B7G	25	U.S.A.

ADDITIONAL THYRATRON

Type	HEATER Volts	Amps		BASE Type	Ref.	Maker
6525	6.3	0.15	Relay Energiser	B7G	26	U.S.A.



NUMERICAL/ALPHABETICAL INDEX

Valve Type	Page No.
25E2	28
25F7	23
25G–B6	23
25QP20	30
26E6	38
28GB5	22
	38
30AE3	26
30C17	11
	34
30F27	34
30FL12	12
	20
	34
30FL13	12
	21
	34
30HB8	12
	21
30L17	12
30PL14	12
	21
31AV3	26
32A8	12
	21
	34
34GD5	20
35EH5	20
35F4	20
35F6	21
35FN5	23
35FV5	23
35GL6	20
35HB8	12
	21
35R1	26
35R2	26
38R3	26
40FR5	20
44GW8	12
	21
45DX8	12
	21
48A8	12
	21
48BQ5	21
50F2	20
50FA5	20
50FE5	23
50FK5	20
50HC6	38
50HK6	24
50R4	26
50RP1	26
	34
58TF1	12
	21
60E3	26
60FX5	20
75C1	19
150C4	19
180QQ44	30
181QP44	30
182QP44	30
350QP44	30
351QP44	30
430AB22	30
430QP44	30
431QQ44	30
531QQ44	30
713A	32
1662	20
3040	17
4069	17
5516	23

Valve Type	Page No.
5882	27
5911	17
5913	17
6000	24
6186	32
6187	32
6188	14
6336	14
6355	18
6360	21
6395	32
6417	21
6486	34
6525	39
6528	38
6664	8
6676	32
6771	38
6778	17
6845	32
6853	27
6889	38
6897	38
6907	17
6932	17
7025A	12
7077	17
7079	17
7083	17
7099	17
7105	15
7184	24
7189	21
7212	24
7233	12
7234	38
7235	38
7239	34
7266	17
7296	17
7308	12
7316	12
7327	17
7355	24
7358	24
7370	12
7382	8
7391	38
7403	38
7405A	30
7406A	30
7408	24
7430	32
7462	17
7486	38
7492	12
7498	32
7534	24
7543	32
7548	38
7550	17
7551	21
7552	17
7553	17
7554	17
7558	21
7561	24
7576	17
7581	24
7586	16
7587	36
7588	17
7591	24
7607	24
7625	38

Valve Type	Page No.
7643	12
	34
7644	38
7683	22
7687	12
	22
7688	16
7689	16
7690	16
7693	32
7694	32
7695	22
7699	12
7701	22
7716	12
	34
7717	32
7719	12
7720	38
7721	34
7722	34
7724	12
7728	12
7729	12
7730	12
7731	12
	34
7732	32
7733	22
7734	12
	22
	34
7737	34
7738	8
7751	24
7754	22
7757	39
7759	17
7760	17
7761	17
7762	17
7763	38
7784	38
7788	34
7802	38
7803	12
	38
7841	38
7851	38
7861	38
7867	24
7868	22
7887	17
7888	17
7889	17
7892	38
7895	16
	17
7962	17
7963	17
7979	38
7994	38
7995	38
8032	39
8064	17
8070	17
8071	17
95108	17
A1714	8
A2521	12
A2599	12
A2674	36
A2688	8
	17
A2738	24

Valve Type	Page No.
A2744	12
A2792	12
A2900	12
A2913	8
AC761	17
AW21–80	30
AW43–48	30
AW43–89	30
AW47–10	30
AW47–90	30
AW47–91	30
AW47–97	30
AW53–89	30
AW59–10	30
AW59–90	30
AW59–91	30
AW59–95	30
B349	12
BF451	24
C17AF	30
C19AH	30
C19AK	30
C21AF	30
C23AG	30
C23AK	30
C30	36
CCa	12
CF9C	18
CK1216	8
CK1217	28
CK1237	17
CME1703	30
CME1705	30
CME1706	30
CME1901	30
CME1902	30
CME1903	30
CME2104	30
CME2301	30
CME2302	30
CME2303	31
CV4085	34
CV4086	34
D121	36
DC760	17
DC761	17
DC762	17
DCF60	17
DL101	24
DL761	17
DR960	32
E55L	22
	36
E84L	22
E88C	16
E88CC/01	12
E130L	24
E180F	34
E186F	34
E188CC	12
E282F	34
E288CC	12
E810F	34
E7002	26
E7003	26
E7004	19
E7005	26
E7006	26
E7007	26
E7010	26
E7011	26
E7013	8
E7014	8
E7015	12
E7017	12

RUSSIAN INDEX

BP2 - HANDBOOK OF RADIO, TV INDUSTRIAL AND TRANSMITTING EQUIVALENTS

Price 60p Size: 7" x 4½" (178 x 114) ISBN 085934 020 1
Author B. B. Babani 96 pages

A modern, easy to use, equivalents handbook for amateur and service engineer. Every new and old valve is shown here with its equivalents. More than 18,000 valves from Gt. Britain, USA, Europe, Japan and the rest of the World are included and a complete up-to-date C.V. (Military, Naval and Air Force) List with full commercial equivalents is also provided in a most convenient form.

BERNARDS & BABANI PRESS RADIO AND ELECTRONICS BOOKS

BP1	First Book of Transistor Equivalents and Substitutes	40p
BP	Handbook of Radio, TV, Ind & Transmitting Tube & Valve Equivalents	60p
BP3	Handbook of Tested Transistor Circuits	40p
BP4	World's Short, Medium & Long Wave, FM & TV Broadcasting Stations Listing (International Edition)	60p
BP5	Handbook of Simple Transistor Circuits	35p
BP6	Engineers and Machinists Reference Tables	20p
BP7	Radio and Electronic Colour Codes and Data Chart	15p
BP8	Sound and Loudspeaker Manual	50p
BP9	38 Practical Tested Diode Circuits for the Home Constructor	35p
BP10	Modern Crystal and Transistor Set Circuits for Beginners	35p
BP11	Practical Transistor Novelty Circuits	40p
BP12	Hi-Fi, P.A., Guitar & Discotheque Amplifier Design H/book	75p
BP13	Electronic Novelties for the Motorist	50p
BP14	Second Book of Transistor Equivalents	95p
BP15	Constructors Manual of Electronic Circuits for the Home	50p
BP16	Handbook of Electronic Circuits for the Amateur Photographer	60p
BP17	Radio Receiver Construction Handbook using IC's and Transistors	60p
BP18	Boys & Beginners Book of Practical Radio & Electronics	60p
BP19	Second Constructors Manual, Electronic Circuits for the Home	75p
BP20	Ham's Handbook of Radio and Electronic Circuits	75p
BP21	Practical Circuits for Solid State Receivers	75p
BP22	79 Electronic Novelty Circuits	75p
BP23	First Book of Practical Electronic Projects	75p
100	A Comprehensive Radio Valve Guide – Book 1	40p
121	A Comprehensive Radio Valve Guide – Book 2	40p
126	Boys Book of Crystal Sets	25p
129	Universal Gram-Motor Speed Indicator	10p
138	How to make FM and TV Aerials – Bands 1/2/3	25p
143	A Comprehensive Radio Valve Guide – Book 3	40p
150	Practical Radio Inside Out	40p
157	A Comprehensive Radio Valve Guide – Book 4	40p
160	Coil Design and Construction Manual	50p
161	Radio, TV and Electronics Data Book	60p
170	Transistor Circuits for Radio Controlled Models	40p
177	Modern Transistor Circuits for Beginners	40p
178	A Comprehensive Radio Valve Guide – Book 5	40p
183	How to receive foreign TV programmes on your set by simple modifications	35p
195	High Fidelity 14 Watt Amplifier Design Chart	15p
196	AF-RF Reactance-Frequency Chart for Constructors	15p
197	Inexpensive Push-Pull Amplifier Construction Chart	15p
200	Handbook of Practical Electronic Musical Novelties	50p
201	Practical Transistorised Novelties for Hi-Fi Enthusiasts	35p
202	Handbook of Integrated Circuits (Ic's) Equivalents and Substitutes	75p
203	IC's and Transistor Gadgets Construction Handbook	60p
204	Second Book of Hi-Fi Loudspeaker Enclosures	60p
205	First Book of Hi-Fi Loudspeaker Enclosures	60p
206	Practical Transistor Circuits for Modern Test Equipment	60p
207	Practical Electronic Science Projects	75p
208	Practical Stereo and Quadrophony Handbook	75p
209	Modern Tape Recording Handbook	75p
210	The Complete Car Radio Manual	75p
211	First Book of Diode Characteristics Equivalents and Substitutes	95p
RCC	Resistor Colour Code Disc Calculator	10p

BABANI PRESS & BERNARDS (PUBLISHERS) LIMITED
The Grampians, Shepherds Bush Road, London W6 7NF
Telephone Number: 01 603 2581/7296