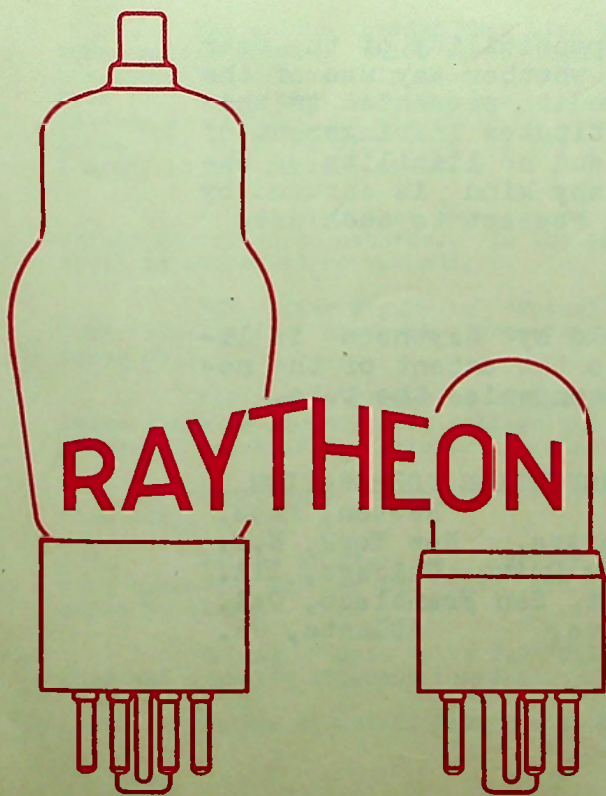


444

# CHARACTERISTIC DATA CHART

Price  
10 cents



FOURTEENTH EDITION  
FIRST PRINTING  
MAY - - 1941  
FORM 165-1

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## BEFORE USING THIS CHART

Please read the following notes carefully. They explain the symbols and abbreviations which are used.

A new system for describing the type of base and for referring to the base connection diagram is used in the column headed "Basing Data".

The symbol at the left of the hyphen refers to the base connection diagram.

The symbol at the right of the hyphen indicates the type of base and the number of contact pins in accordance with the following:

First Letter- M=Miniature Base  
O=Octal Base  
L=Locking Base  
S=Standard Base

Second Letter- B=Button Base (A shell is not incorporated)  
M=Medium Shell (bakelite)  
S=Small Shell (bakelite)  
W=Wafer Base (metal tube or bantam tube with metal shell)  
GT=Intermediate (bantam) shell (bakelite)

Numeral Indicates the number of pins in base.

"B" after numeral indicates bayonet pin in base.

### Examples:

4C-SS4B Diagram 4C, standard small shell with bayonet, 4 pin.  
6G-SM6 Diagram 6G, standard medium shell, 6 pin.  
7Q-OW7 Diagram 7Q, octal wafer base, 7 pin.

The column headed "Max Size View" shows the number of the tube outline drawing which gives dimensions. Although the letter in the symbol is arbitrarily chosen, the number refers to the bulb size. Thus 14C means that the tube has a size 14 bulb and that its outline drawing and dimensions are given in the "C" drawing for size 14 bulbs. Since the unit of bulb size is 1/8", a size 14 bulb is nominally 1 3/4", at its largest diameter.

\* Indicates that capacitance is measured with standard tube shield connected to cathode. In the case of a metal type, the metal shell is connected to cathode.

"C" after figure in "Mutual Conductance" column indicates that value is for conversion transconductance. (Used for converter types only.)

"S" after figure in "Plate Volts" column indicates that value shown is anode supply voltage and that it is applied through the indicated value of  $G_2$  resistor. (Also used only for converter types.)

Capacities shown for converter types are for the mixer section only.

Values of Plate Ma., Screen Ma., and Output Watts for push-pull operation are for two tubes and value of load resistance is from plate to plate.

Values of Grid Volts for filament type tubes are measured from the negative filament terminal.

Values of Cutoff Bias are approximate.

TYPE	DESIGN	CATHODE HTR OR FIL			BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
		TYPE	VOLTS	AMPS			G-P μFDS	IN μFDS	OUT μFDS													
00A	TRIODE	FIL	5.0	.25	4D-SM4B	14B	8.5	3.2	2.0	DETECTOR	45	0		1.5		20	30000	666				00A
01A	TRIODE	FIL	5.0	.25	4D-SM4B	14D	8.1	3.1	2.2	AMP CL A	135	-9		3		8	10000	800				01A
0A4G	GAS TRI	COLD			4V-OS6	12E				RELAY TUBE	MAX PEAK CATHODE CURRENT 100ma, MAX DC CATHODE CURRENT 25ma, STARTER ANODE DROP APPROX 60v, ANODE DROP APPROX 70v										0A4G	
0Z4 0Z4G	TWIN DIODE	COLD			4R-OW6 4R-OT5	8D 7A				FULL WAVE RECTIFIER	300 RMS MAX		75 ma MAX-30 ma MIN		TUBE DROP 24v						0Z4 0Z4G	
1A4P	PENTODE	FIL	2.0	.06	4M-SS4	12H	.007*	5.0*	12*	AMP CL A	180	-3	67.5	2.3	0.8		1 MEG	750			-15	1A4P
1A4-T	TETRODE	FIL	2.0	.06	4K-SS4	12H	.012*	4.6	11	AMP CL A	180	-3	67.5	2.3	0.7	720	.96MEG	750			-15	1A4-T
1A5GT/G	PENTODE	FIL	1.4	.05	6X-OGT7	9H				POWER AMP CLASS A	90 85	-4.5 -4.5	90 85	4.0 3.5	0.8 0.7		.3 MEG .3 MEG	850 800	.115 .100	25000 25000		1A5GT/G
1A6	HEPTODE	FIL	2.0	.06	6L-SS6	12H	.25*	10.5	9.0	OSC SECT MIXER	135S 180	.05MEG -3	67.5	2.3 1.3	2.4		GRID #2 RES .5 MEG	.02 MEG 300C			-22.5	1A6
1A7G 1A7GT	HEPTODE	FIL	1.4	.05	7Z-OS8 7Z-OW8	9P 9F	.30*	6.5*	11*	OSC SECT MIXER	90 90	.2 MEG 0	45	1.2 0.55	0.6		.6 MEG	250C			-3	1A7G 1A7GT
1B4/951	PENTODE	FIL	2.0	.06	4M-SS4	12H	.007*	5.0	11	AMP CL A	180 90	-3 -3	67.5 67.5	1.7 1.6	0.6 0.7	975 600	1.5MEG 1 MEG	650 600			-8 -8	1B4/951
1B5/25S	DUO-DI TRIODE	FIL	2.0	.06	6M-SS6	12B	3.6	2.0	3.0	AMPLIFIER CLASS A	135	-3		0.8		20	35000	575				1B5/25S
1B7G	HEPTODE	FIL	1.4	.1	7Z-OS8	9P	.34*	7.0*	7.5*	OSC SECT MIXER	90 90	.2 MEG 0	45	1.6 1.5	1.3		.35MEG	350C			-14.5	1B7G
1C5G 1C5GT	PENTODE	FIL	1.4	.1	6X-OS7 6X-OGT7	9N 9H				POWER AMP CLASS A	90 83	-7.5 -7	90 83	7.5 7.0	1.6 1.6	180 165	.12MEG .11MEG	1550 1500	.240 .200	8000 9000		1C5G 1C5GT
1C6 1C7G	HEPTODE	FIL	2.0	.12	6L-SS6 7Z-OS8	12H 12F	.3* .26*	10 10*	10 14*	OSC SECT MIXER	180S 180	.05MEG -3	67.5	3.3 1.5	2.0		GRID #2 RES .7 MEG	.02 MEG 325C			-14	1C6 1C7G
1D5G-P	PENTODE	FIL	2.0	.06	5Y-OS7	12F	.007*	5.0*	11*	AMPLIFIER CLASS A	180 90	-3 -3	67.5 67.5	2.3 2.2	0.8 0.9	750 425	1 MEG .6 MEG	750 720			-15 -15	1D5G-P
1D5GT	TETRODE	FIL	2.0	.06	5R-OS7	12F	.012*	4.6*	11*	AMP CL A	180	-3	67.5	2.3	0.7		.96MEG	750			-15	1D5GT
1D7G	HEPTODE	FIL	2.0	.06	7Z-OS8	12F	.30*	10*	14*	OSC SECT MIXER	180S 180	.05MEG -3	67.5	2.3 1.3	2.4		GRID #2 RES .5 MEG	.02 MEG 300C			-22.5	1D7G
1D8GT	DI-TRI PENTODE	FIL	1.4	.1	8AJ-OGT8	9J				TRI CL A PENT CL A	90 90	0 -9	90	1.1 5.0	1.0	25	43500 .2 MEG	575 925	.200	12000		1D8GT
1E4G	TRIODE	FIL	1.4	.05	5S-OS7	9N	2.4	2.4	6.0	AMPLIFIER CLASS A	90 90	-3 0		1.4 4.5		14.5 14.5	19000 11200	760 1300				1E4G
1E5G-P	PENTODE	FIL	2.0	.06	5Y-OS7	12F	.007*	5.5*	12*	AMPLIFIER CLASS A	180 90	-3 -3	67.5 67.5	1.7 1.6	0.6 0.7	975 600	1.5MEG 1 MEG	650 600			-8 -8	1E5G-P
1E7G	TWIN PENTODE	FIL	2.0	.24	8C-OS8	12E				PUSH-PULL CL A 1 SECT CL A 2 SECT	135 135	-4.5 -7.5	135 135	7.5 14	2.2 4.0		.26MEG	1425	.290 .575	16000 24000		1E7G
1F4 1F5G	PENTODE	FIL	2.0	.12	5K-SM5 6X-OM7	14D 14C				PUSH-PULL PR AMP CL A CL AB 2 TUBE	135 180	-4.5 -7.5	135 180	8.0 19	2.4 5.5		.20MEG	1700	.310 1.25	16000 20000		1F4 1F5G
1F6 1F7G-H	DUO-DI PENTODE	FIL	2.0	.06	6W-SS6 7AD-OS8	12H 12F	.007* .01*	4 3.8*	9 9.5*	AMPLIFIER CLASS A	180	-1.5	67.5	2.2	0.7		1 MEG	650			-12	1F6 1F7G-H

TYPE	DESIGN	CATHODE HTR OR TYPE	FIL VOLTS	FIL AMPS	BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
							G-P μFDS	IN μFDS	OUT μFDS													
1G4G	TRIODE	FIL	1.4	.05	5S-0S7 5S-0GT7	9N 9H				AMP CL A	90	-6		2.3		8.8	10700	825				1G4G
1G5G	PENTODE	FIL	2.0	.12	6X-0M7	14C				POWER AMP CLASS A	135 90	-13.5 -6	135 90	8.7 8.5	2.5 2.5		.16MEG .13MEG	1550 1500	.550 .250	9000 8500		1G5G
1G6G 1G6GT	TWIN TRIODE	FIL	1.4	.1	7AB-0S8 7AB-0GT8	9N 9H				CL A 1 SECT CL B 2 SECT	90 90	0 0		1.0 2.0	30 PL CUR-MAX	45000 SIG-14ma	675	.675	12000			1G6G 1G6GT
1H4G	TRIODE	FIL	2.0	.06	5S-0S6	12E	5.0*	3.0*	3.0*	AMP CL A CL B 2 TUBE	180 157.5	-13.5 -15		3.1 1.0		9.3	10300	900	(SEE TYPE 30 2.1	ALSO) 8000		1H4G
1H5G 1H5GT	DIODE TRIODE	FIL	1.4	.05	5Z-0S7 5Z-0W7	9P 9F	1.1	.36	4.0	AMPLIFIER CLASS A	90	0		0.15		65	.24MEG	275				1H5G 1H5GT
1H6G	DUO-DI TRIODE	FIL	2.0	.06	7AA-0S8	12E	3.6*	2.0*	3.0*	AMPLIFIER CLASS A	135	-3		0.8		20	35000	575				1H6G
1J5G	PENTODE	FIL	2.0	.12	6X-0M7	14C				PR AMP CL A	135	-16.5	135	7.0	2.0	100	.1 MEG	1000	.45	13500		1J5G
1J6G	TWIN TR	FIL	2.0	.24	7AB-0S8	12E				CLASS B TWO SECT	135 135	0 -6		10 NO SIG 0.2 NO SIG				2.1 1.6	10000 10000			1J6G
1LA4	PENTODE	FIL	1.4	.05	5AD-L8	9A				PR AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 1A5G										1LA4	
1LA6	HEPTODE	FIL	1.4	.05	7AK-L8	9A	.40	7.7	8.0	OSC MIXER	CHARACTERISTICS SAME AS FOR TYPE 1A7G										1LA6	
1LB4	PENTODE	FIL	1.4	.05	5AD-L8	9A				PR AMP CL A	90 45	-9 -4.5	90 45	5.0 1.6	1.0 0.3		.2 MEG .3 MEG	925 650	.200 .035	12000 20000		1LB4
1LH4	DI-TRI	FIL	1.4	.05	5AG-L8	9A	1.2	2.0	2.4	AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 1H5G										1LH4	
1LN5	PENTODE	FIL	1.4	.05	7AO-L8	9A	.007	3.4	8.0	AMP CL A	90	0	90	1.6	0.35	880	1.1MEG	800			-4.5	1LN5
1N5G 1N5GT	PENTODE	FIL	1.4	.05	5Y-0S7 5Y-0W7	9P 9F	.007*	3.0	10.0	AMP CL A	90	0	90	1.2	0.3	1160	1.5MEG	750			-4	1N5G 1N5GT
1N6G	DI-PENT	FIL	1.4	.05	7AM-0S8	9N				PR AMP CL A	90	-4.5	90	3.4	0.7		.3 MEG	800	.10	25000		1N6G
1P5GT	PENTODE	FIL	1.4	.05	5Y-0W7	9F	.007*	3.0	10.0	AMP CL A	90	0	90	2.3	0.7		.8 MEG	750			-12	1P5GT
1Q5GT/G	BEAM PWR AMP	FIL	1.4	.1	6AF-0GT7	9H				POWER AMP CLASS A	90 85	-4.5 -5.0	90 85	9.5 7.0	1.3 0.8		2200 1950	.27 .25	8000 9000			1Q5GT/G
1R5	HEPTODE	FIL	1.4	.05	7AT-MB7	5.5A	.4	7.0	7.0	OSC SECT MIXER	OSC GRID RES 90	-	.1 MEG 67.5	OSC GRID CUR 1.7	-.25 MA 3.0		.5 MEG 300C				-15	1R5
1S4	PENTODE	FIL	1.4	.1	7AV-MB7	5.5A				PR AMP CL A	67.5 45	-7 -4.5	67.5 45	7.2 3.8	1.5 0.8		.1 MEG .1 MEG	1550 1250	.180 .065	5000 8000		1S4
1S5	DIODE PENTODE	FIL	1.4	.05	6AU-MB7	5.5A				DETECTOR AMP CL A	67.5	0	67.5	1.6	0.4		.6 MEG	625				1S5
1T4	PENTODE	FIL	1.4	.05	6AR-MB7	5.5A	.01	3.6	7.5	AMP CL A	90 45	0 0	67.5 45	3.5 1.7	1.4 0.7		.5 MEG .35MEG	900 700			-16 -10	1T4
1T5GT	BM PWR	FIL	1.4	.05	6X-0GT7	9H				PR AMP CL A	90	-6	90	6.5	0.8			1150	.17	14000		1T5GT
1-V	DIODE	HTR	6.3	.3	4G-SS4	12B				H W RECT	325 RMS MAX			45 DC MAX TUBE DROP 20v AT 90ma DC							1-V	
2A3	TRIODE	FIL	2.5	2.5	4D-SM4	16B				PR AMP CL A PUSH-PULL CL AB 2 TUBE	250 300 300	-45 -62 SELF		60 80 80		4.2	800	5250	3.5 15 10	2500 3000 5000		2A3

TYPE	DESIGN	CATHODE HTR OR TYPE	FIL VOLTS	FIL AMPS	BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
							G-P μFDS	IN μFDS	OUT μFDS													
2A4G	GAS TRI	FIL	2.5	2.5	5S-OS7	12E				THYRATRON	200 RMS MAX		100 DC MAX			TUBE DROP 12v					-9	2A4G
2A5	PENTODE	HTR	2.5	1.75	6B-SM6	14D	TRIODE CONNECTION			PR AMP CL A CL AB 2 TUBE	250 350	-20 -38		31 48		6.8 (SEE TYPE 6F60 ALSO)	2600 6F60	.85 13.0	4000 6000			2A5
2A6	DUO-DI TRIODE	HTR	2.5	.8	6G-SS6	12H	1.7	2.0	3.5	AMPLIFIER CLASS A	250	-2		0.9		100	91000	1100				2A6
2A7 2A7S	HEPTODE	HTR	2.5	.8	7C-SS7 7C-SS7	12H	.3*	8.5	9.0	OSC SECT MIXER	250S 250	.05MEG -3	100	4.0 3.5	2.7		GRID #2 RES .36MEG	.02 MEG 550C			-35	2A7 2A7S
2B7 2B7S	DUO-DI PENTODE	HTR	2.5	.8	7D-SS7 7D-SS7	12H	.007*	3.5	9.5	AMPLIFIER CLASS A	250 100	-3 -3	125 100	9.0 5.8	2.3 1.7		.65MEG .30MEG	1125 950			-21 -17	2B7 2B7S
2E5	ELEC RAY	HTR	2.5	.8	6R-SS6	12B				TUNING IND	CHARACTERISTICS SAME AS FOR TYPE 6E5										2E5	
2S/4S	DUO DIODE	HTR	2.5	1.35	5D-SS5					DETECTOR	40 APPROX PER PLATE AT 50v DC										2S/4S	
2X2/879	DIODE	HTR	2.5	1.75	4AB-OS4	12H				H W RECT	4500 RMS MAX		7.5 DC MAX									2X2/879
2Z2/G84	DIODE	FIL	2.5	1.5	4B-SS4	12B				HALF WAVE RECTIFIER	CHARACTERISTICS SIMILAR TO THOSE OF TYPE 1-V										2Z2/G84	
3A8GT	DI-TRI PENTODE	FIL	1.4 or 2.8	.1 .05	8AS-OGT8	9L	2.2* .015*	2.6* 2.6*	4.6* 10*	TRI CL A PENT CL A	90 90	-FIL -FIL	90	0.20 1.5	0.5		.20MEG .8 MEG	325 750				3A8GT
3Q5GT/G	BM PWR	FIL	1.4 or 2.8	.1 .05	7AP-OGT7	9H	PARALLEL FIL SERIES FIL			PR AMP CL A	90 90	-4.5 -4.5	90 90	9.5 8.0	1.3 1.0		.1 MEG .11MEG	2200 2000	.270 .230	8000 8000		3Q5GT/G
3S4	PENTODE	FIL	1.4 or 2.8	.1 .05	7BA-MB7	5.5A	PARALLEL FIL SERIES FIL			POWER AMP CLASS A	67.5 67.5	-7 -7	67.5 67.5	7.2 6.0	1.5 1.2		.1 MEG .1 MEG	1550 1400	.180 .160	5000 5000		3S4
4A6G	TWIN TRIODE	FIL	2.0 or 4.0	.12 .06	8L-OS8	12E				CL A 1 SECT CL B 2 SECT	90 90	-1.5 -1.5		1.1 1.1		20 PL CUR-MAX	26600 SIG-10.8ma	750 1.0		8000		4A6G
5T4	TWIN DIODE	FIL	5.0	2.0	5T-OW5	10C				FULL WAVE RECTIFIER	450 RMS MAX COND 550 RMS MAX CHOKE		IN 225 DC MAX IN 225 DC MAX							TUBE DROP 45v AT 225ma DC		5T4
5U4G	TWIN DIODE	FIL	5.0	3.0	5T-OM8	16A				FULL WAVE RECTIFIER	450 RMS MAX COND 550 RMS MAX CHOKE		IN 225 DC MAX IN 225 DC MAX							TUBE DROP 58v AT 225ma DC		5U4G
5V4G	TWIN DIODE	HTR	5.0	2.0	5L-OM5	14C				FULL WAVE RECTIFIER	375 RMS MAX COND 500 RMS MAX CHOKE		IN 175 DC MAX IN 175 DC MAX							TUBE DROP 23v AT 175ma DC		5V4G
5W4 5W4GT/G	TWIN DIODE	FIL	5.0	1.5	5T-OW5 5T-OGT5	8H 9HB				FULL WAVE RECTIFIER	350 RMS MAX COND 500 RMS MAX CHOKE		IN 100 DC MAX IN 100 DC MAX							TUBE DROP 45v AT 100ma DC		5W4 5W4GT/G
5X4G	TWIN DI	FIL	5.0	3.0	5Q-OM8	16A				F W RECT	CHARACTERISTICS SAME AS FOR TYPE 5U4G										5X4G	
5Y3G 5Y4G	TWIN DIODE	FIL	5.0	2.0	5T-OM5 5Q-OM8	14C 14C				FULL WAVE RECTIFIER	350 RMS MAX COND 500 RMS MAX CHOKE		IN 125 DC MAX IN 125 DC MAX							TUBE DROP 60v AT 125ma DC		5Y3G 5Y4G
5Z3	TWIN DI	FIL	5.0	3.0	4C-SM4	16B				F W RECT	CHARACTERISTICS SAME AS FOR TYPE 5U4G										5Z3	
5Z4	TWIN DIODE	HTR	5.0	2.0	5L-OW5	8H				FULL WAVE RECTIFIER	350 RMS MAX COND 500 RMS MAX CHOKE		IN 125 DC MAX IN 125 DC MAX							TUBE DROP 20v AT 125ma DC		5Z4
6A3	TRIODE	FIL	6.3	1.0	4D-SM4	16B	16	7	5	PR AMP CL A PUSH-PULL CL AB 2 TUBE	CHARACTERISTICS SAME AS FOR TYPE 6B4G										6A3	

TYPE	DESIGN	CATHODE			BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
		TYPE	HTR OR FIL	VOLTS			FIL AMPS	G-P μFDS	IN μFDS													
6A4/LA	PENTODE	FIL	6.3	.3	5B-SM5	14D				PR AMP CL A PUSH-PULL CL AB 2 TUBE	180 250	-12 SELF	180 230	22 32	3.9 700	100 OHM BIAS RES	45500	2200	1.4 4.2	8000 16000		6A4/LA
6A5G	TRIODE	HTR	6.3	1.25	6T-OM8	16A	16	7	5	PR AMP CL A PUSH-PULL CL AB 2 TUBE	250 325 325	-45 -68 SELF		60 80 80	4.2 850 OHM BIAS RES	800	5250	3.75 15 10	2500 3000 5000		6A5G	
6A6	TWIN TRIODE	HTR	6.3	.8	7B-SM7	14D	(SEE TYPE 6N7G ALSO)			AMP CL A TRI IN PAR'L	294 250	-6 -5		7 6	35 35	11000 11300	3200 3100				6A6	
6A7 6A7S 6A8 6A8G 6A8GT	HEPTODE	HTR	6.3	.3	7C-SS7 7C-SS7 8A-OW8 8A-OS8 8A-OW8	12H 8F 12F 9F	.3* .03 26*	8.5 12.5 9.5*	9.0 12.5 12*	OSC SECT MIXER	250S 100 250 100	.05MEG .05MEG -3 -1.5		4.0 2.0 3.5 1.1			GRID #2 RES .36MEG .6 MEG	.02 MEG 550C 360C				6A7 6A7S 6A8 6A8G 6A8GT
6AB5/6N5	ELEC RAY	HTR	6.3	.15	6R-SS6	9R				TUNING IND	135 THRU .25 MEG, TARGET 135v, GRID 0v FOR 90°, -10.0v FOR 0°										6AB5/6N5	
6AB7/1853	PENTODE	HTR	6.3	.45	8N-OW8	8E	.015	8	5	HIGH FREQ AMPLIFIER	300 300	-3 -3	200 300 THRU .03 MEG	12.5 3.2	3.2	.7 MEG	5000			-15 -22.5	6AB7/1853	
6AC5G 6AC5GT	TRIODE	HTR	6.3	.4	6Q-OS6 6Q-OGT6	12E 9H	ONE 76 DRIVER TWO 76 DRIVERS			DIR C'P'D AMP PUSH PULL CL B 2 TUBE	250 250 250	SUPPLIED BY DRIVERS 0			32 64 5 NO SIGNAL	125	36700	3400	3.7 9.5 8	7000 10000 10000		6AC5G 6AC5GT
6AC7/1852	PENTODE	HTR	6.3	.45	8N-OW8	8E	.015	11	5	HIGH FREQ AMPLIFIER	300 300	SELF SELF	150 300 THRU .06 MEG	10 .06 MEG	2.5	.75MEG	9000	160 OHM-BIAS RES			6AC7/1852	
6AD6G	TWIN ELEC RAY	HTR	6.3	.15	7AG-OW7	9C				TUNING INDICATOR	TARGET 150v CONTROL ELECTRODE 75v AT 0°, 8v AT 90°, -50v AT 135° TARGET 100v CONTROL ELECTRODE 45v AT 0°, 0v AT 90°, -23v AT 135°										6AD6G	
6AD7G	TRIODE PENTODE	HTR	6.3	.85	8AY-OM8	14C	TRIODE SEC PENTODE SEC			AMP CL A PR AMP CL A	250 250	-25 -16.5	250	4 34	6.5	6	19000 80000	325 2500	3.2	7000		6AD7G
6AE5G 6AE5GT	TRIODE	HTR	6.3	.3	6Q-OS6 6Q-OGT6	12E 9H				AMP CL A	95	-15		7		4.2	3500	1200				6AE5G 6AE5GT
6AE6G	DUO TRIODE	HTR	6.3	.15	7AH-OS7	12E				CONTROL FOR 6AD6G-6AF6G	250 250	-1.5 -1.5		6.5 4.5		25 33	1000 950	PLATE R PLATE L		-35 -9.5	6AE6G	
6AE7GT	TWIN TRIODE	HTR	6.3	.5	7AX-OGT8	9H				DRIVER 1 SEC TRIODE	250	-13.5		5		14	9300	1500				6AE7GT
6AF5G	TRIODE	HTR	6.3	.3	6Q-OS6	12E				AMP CL A	180	-18		7		7.4	4900	1500				6AF5G
6AF6G	TWIN ELEC RAY	HTR	6.3	.15	7AG-OS7	9M				TUNING INDICATOR	TARGET 135v CONTROL ELECTRODE 81v AT 0°, 0v AT 100° TARGET 100v CONTROL ELECTRODE 60v AT 0°, 0v AT 100°										6AF6G	
6AG7	PENTODE	HTR	6.3	.65	8Y-OW8	8H	.06*	13.0*	7.5*	AMP CL A	300	-10.5	300	25	6.5		.1 MEG	7700		3500		6AG7
6AL6G	BEAM PWR AMP	HTR	6.3	.9	6AM-OM7	16C				POWER AMP CLASS A	250 250	-14 SELF	250 250	72 75	5 5.4	170 OHM BIAS RES	22500	6000	6.5 6.5	2500 2500		6AL6G
6B4G	TRIODE	FIL	6.3	1.0	5S-OM8	16A	16	7	5	PR AMP CL A PUSH PULL CL AB 2 TUBE	250 325 325	-45 -68 SELF		60 80 80	4.2 850 OHM BIAS RES	800	5250	3.2 15 10	2500 3000 5000		6B4G	
6B5	DUO-TRI	HTR	6.3	.8	6AS-SM6	14D	DRIVER TRIODE OUTPUT TRIODE			DIR C'P'D AMP 2 TUBES CL A	325 325	0 +		9 51				See Type 6N6G Also 13.5 10000				6B5
6B6G	DUO-DI TRIODE	HTR	6.3	.3	7V-OS7	12F	1.3	2.7	4.5	AMPLIFIER CLASS A	250	-2		0.9		100	91000	1100				6B6G

TYPE	DESIGN	CATHODE			BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
		HTR OR	FIL	AMPS			G-P	IN	OUT													
6B7 6B7S	DUO-DI PENTODE	HTR	6.3	.3	7D-SS7 7D-SS7	12H	.007*	3.5	9.5	AMPLIFIER CLASS A	250 100	-3 -3	125 100	9.0 5.8	2.3 1.7	.6 MEG .3 MEG	1125 950			-21 -17	6B7 6B7S	
6B8 6B8G	DUO-DI PENTODE	HTR	6.3	.3	8E-OW8 8E-OS8	8F 12F	.005 .01*	6 3.6*	9 9.5*	AMPLIFIER CLASS A	250	-3	125	10	2.3	.6 MEG	1325			-21	6B8 6B8G	
6C5 6C5G 6C5GT	TRIODE	HTR	6.3	.3	6Q-OW6 6Q-OS6 6Q-OW6	8D 12E 9E	2.0 2.2* 2.2*	3.0 4.4* 4.4*	11 12* 12*	AMPLIFIER CLASS A	250	-8		8		20	10000	2000			6C5 6C5G 6C5GT	
6C6	PENTODE	HTR	6.3	.3	6F-SS6	12J	.007*	5.0	6.5	AMPLIFIER CLASS A	250 100	-3 -3	100 100	2.0 2.0	.5 .5	1.5MEG 1 MEG	1226 1185			-7 -7	6C6	
6C7	DUO-DI TRIODE	HTR	6.3	.3	7G-SS7					AMP CL A	250	-9		5.5		20	16000	1250			6C7	
6C8G	TWIN TR	HTR	6.3	.3	8G-OS8	12F				CL A 1 SECT	250	-4.5		3.2		36	22500	1600			6C8G	
6D6	PENTODE	HTR	6.3	.3	6F-SS6	12J	.007*	4.7	6.5	AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6U7G										6D6	
6D7	PENTODE	HTR	6.3	.3	7H-SS7					AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6C6										6D7	
6D8G	HEPTODE	HTR	6.3	.15	8A-OS8	12F	.2*	8.0*	11*	OSC SECT MIXER	250S 250	.05MEG -3	100	4.3 3.5	2.6		GRID #2 RES .02 MEG .4 MEG	550C			-35	6D8G
6E5	ELEC RAY	HTR	6.3	.3	6R-SS6	12B				TUNING IND	250 THRU 1 MEG, TARGET 250v, GRID 0v FOR 90°, -8v FOR 0°										6E5	
6E6	TWIN TR	HTR	6.3	.6	7B-SM7	14D				CL A 1 SECT CL A 2 SECT	250 250	-27.5 -27.5		18 36		6	3500	1700	1.6	14000	6E6	
6E7	PENTODE	HTR	6.3	.3	7H-SS7					AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6U7G										6E7	
6F5 6F5G 6F5GT	TRIODE	HTR	6.3	.3	5M-OW5 5M-OS5 5M-OW5	8F 12F 9J	2.0 2.0	6.0 2.5	12 3.5	AMPLIFIER CLASS A	250 100	-2 -1		0.9 0.4		100 100	66000 85000	1500 1150			6F5 6F5G 6F5GT	
6F6 6F6G	PENTODE	HTR	6.3	.7	7S-OW7 7S-OW7	8H 14C				PENTODE CONNECTION	285 250 375 315	-20 -16.5 -26 -24	285 250 250 285	38 34 34 62	7 6.5 5 12		78000 80000	2550 2500	4.8 3.2 18.5 11	7000 7000 10000 10000		6F6 6F6G
6F7 6F7S	TRIODE PENTODE	HTR	6.3	.3	7E-SS7 7E-SS7	12H	2.0 .008*	2.5 3.2	3.0 12.5	TRI CL A PENT CL A	100 250	-3 -3	100	3.5 6.5	1.5	8 900	16000 .85MEG	500 1100			(SEE 6P7G ALSO) -35	6F7 6F7S
6F8G	TWIN TR	HTR	6.3	.6	8G-OS8	12F	4.0L 3.6R	3.2L 3.0R	3.2L 3.8R	AMP CL A ONE SECT	250 90	-8 0		9.0 10.0		20 20	7700 6700	2600 3000			6F8G	
6G6G	PENTODE	HTR	6.3	.15	7S-OS7	12E				POWER AMP CLASS A	180 135	-9 -6	180 135	15 11.5	2.5 2.0	400 360	.18MEG .17MEG	2300 2100	1.1 0.6	10000 12000		6G6G
6H4GT	DIODE	HTR	6.3	.15	5AF-OGT5	9H				DETECTOR	100 MAX			4 MAX			1000 AT .25ma				6H4GT	
6H6 6H6G 6H6GT	TWIN DIODE	HTR	6.3	.3	7Q-OW7 7Q-OS7 7Q-OW7	8C 12E 9E	.1PP .1PP .1PP			DETECTOR	150 MAX			4 MAX EACH DIODE								6H6 6H6G 6H6GT
6J5 6J5GT/G	TRIODE	HTR	6.3	.3	6Q-OW6 6Q-OW6	8E 9E	3.4 3.8*	3.4 4.2*	3.6 5.0*	AMPLIFIER CLASS A	250 90	-8 0		9.0 10.0		20 20	7700 6700	2600 3000			6J5 6J5GT/G	
6J7 6J7G 6J7GT	PENTODE	HTR	6.3	.3	7R-OW7 7R-OS7 7R-OW7	8F 12F 9F	.005 .005*	7 4.6*	12 12*	AMP CL A PENT CONN TRI CONN	250 100 250	-3 -3 -8	100 100	2.0 2.0 6.5	0.5 0.5	1.5MEG 1.0MEG	1225 1185			-7 -7	6J7 6J7G 6J7GT	



TYPE	DESIGN	CATHODE HTR OR FIL TYPE	HTR VOLTS	FIL AMPS	BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
							G-P μFDS	IN μFDS	OUT μFDS													
6J8G	TRIODE HEPTODE	HTR	6.3	.3	8H-OS8	12F	.01*	4.6*	10.5*	OSC-TRIODE MIXER HEPT	250S 250	.05MEG -3	5.0 1.2	2.9		TRIODE PLATE RESISTOR 4 MEG	290C		.02 MEG	-20	6J8G	
6K5G	TRIODE	HTR	6.3	.3	5U-OS7	12F	2.0	2.4	3.6	AMP CL A	250	-3	1.1		70	50000	1400				6K5G	
6K6GT/G	PENTODE	HTR	6.3	.4	7S-OGT7	9H				POWER AMP CLASS A	315 250	-21 -18	250 250	25.5 32	4.0 5.5	75000 68000	2100 2300	4.5 3.4	9000 7600		6K6GT/G	
6K7 6K7G 6K7GT	PENTODE	HTR	6.3	.3	7R-OW7 7R-OS7 7R-OW7	8F 12F 9F	.005 .007* .005*	7 5* 4.6*	12 12* 12*	AMPLIFIER CLASS A	250 250 100	-3 -3 -1	125 100 100	10.5 7.0 9.5	2.6 1.7 2.7	.6 MEG .8 MEG .15MEG	1650 1450 1650			-52.5 -42.5 -38.5	6K7 6K7G 6K7GT	
6K8 6K8G 6K8GT	TRIODE HEXODE	HTR	6.3	.3	8K-OW8 8K-OS8 8K-OW8	8GA 12F 9GA	.03 .08* .08*	6.6 4.6* 4.6*	3.5 4.8* 4.8*	OSC-TRIODE MIXER HEX	100 250 100	.05MEG -3 -3	3.8 2.5 2.3	6.0 6.2		.6 MEG .4 MEG	3000 350C 325C	(TRIODE GRID Ov)	-30 -30		6K8 6K8G 6K8GT	
6L5G	TRIODE	HTR	6.3	.15	6Q-OS6	12E	2.7*	3*	5*	AMP CL A	250	-9	8		17	8900	1900			-20	6L5G	
6L6 6L6G	BEAM PWR AMP	HTR	6.3	.9	7AC-OW7 7AC-OM8	10C 16A				POWER AMP CLASS A PP CL A PP CL AB PP CL AB 2	350 250 270 360 360	-18 -14 -17.5 -22.5 -22.5	250 250 270 270 270	54 72 134 88 88	2.5 5.0 11 5 5	33000 22500 23500	5200 6000 5700	10.8 6.5 17.5 26.5 47	4200 2500 5000 6600 3800		6L6 6L6G	
6L7 6L7G	HEPTODE	HTR	6.3	.3	7T-OW7 7T-OS7	8F 12F	.001 .005*	7.5 6*	11 10*	AMP CL A MIXER	250 250	-3 -6	100 150	5.3 3.3	6.5 9.2	.6 MEG 1 MEG	1100 350C	G3 AT - 3v G3 AT -15v	-15 -45		6L7 6L7G	
6N6G	DUO TRI	HTR	6.3	.8	7AU-OM7	14C				DRIVER TRIODE OUTPUT TRIODE	300 300	0 +	8 45			See Type 6B5 Also 24000	4 7000				6N6G	
6N7 6N7G	TWIN TRIODE	HTR	6.3	.8	8B-OW8 8B-OM8	8H 14C	(SEE TYPE 6A6 ALSO)			POWER AMP CL B 2 SECT	300	0	35			PL CUR-MAX SIG - 70ma		10	8000		6N7 6N7G	
6P5G 6P5GT	TRIODE	HTR	6.3	.3	6Q-OS6 6Q-OGT6	12E 9H	2.6* 3.4*	5.5* 5.5*	5.5* 12*	AMPLIFIER CLASS A	250 100	-13.5 -5	5 2.5			13.8 13.8	9500 12000	1450 1150			6P5G 6P5GT	
6P7G	TRIODE- PENTODE	HTR	6.3	.3	7U-OS8	12F	2.0* .008*	3.5* 3.5*	3.0* 12*	OSC-TRIODE MIXER PENT	100 250	-3	100	2.4 2.8	0.6		(SEE TYPE 6F7 ALSO) 2 MEG	300C			6P7G	
6Q7 6Q7G 6Q7GT	DUO- DIODE TRIODE	HTR	6.3	.3	7V-OW7 7V-OS7 7V-OW7	8F 12F 9F	1.5 1.3	5.5 2.7	5.0 4.5	AMPLIFIER CLASS A	250 100	-3 -1.0	1.1 0.8			70 70	58000 58000	1200 1200			6Q7 6Q7G 6Q7GT	
6R7 6R7G 6R7GT	DUO DI TRIODE	HTR	6.3	.3	7V-OW7 7V-OS7 7V-OGT7	8F 12F 9J	2.5 3.5	5.5 2.5	4.0 4.5	AMPLIFIER CLASS A	250	-9	9.5			16	8500	1900	.28	10000		6R7 6R7G 6R7GT
6S7 6S7G	PENTODE	HTR	6.3	.15	7R-OW7 7R-OS7	8GA 12F	.005 .008*	6.5 4.4*	10.5 8.0*	AMPLIFIER CLASS A	250 135	-3 -3	100 67.5	8.5 3.7	2.0 0.9	1 MEG 1 MEG	1750 1250			-38.5 -25	6S7 6S7G	
6SA7 6SA7GT	HEPTODE	HTR	6.3	.3	8R-OW8 8AD-OW8	8E 9E	.13 .20	9.5 11.0	12 12	OSC SECT MIXER	OSC GRID RES - 250	.02 MEG -2	3.5 100	8.5		OSC GRID CUR - .5ma 1.0MEG	450C			-35	6SA7 6SA7GT	
6SC7	TWIN TR	HTR	6.3	.3	8S-OW8	8E				CL A 1 SECT	250	-2	2			70	53000	1325			6SC7	
6SD7GT	PENTODE	HTR	6.3	.3	8N-OW8	9E	.0035	9.0	7.5	AMP CL A	250 100	-2 -2	100 100	6.0 5.7	1.9 2.0	1.0MEG .25MEG	3600 3350			-11 -11	6SD7GT	
6SF5 6SF5GT	TRIODE	HTR	6.3	.3	6AB-OW6 6AB-OGT6	8E 9H	2.6	4.2	3.8	AMPLIFIER CLASS A	250 100	-2 -1	0.9 0.4			100 100	66000 85000	1500 1150			6SF5 6SF5GT	
6SF7	DIODE PENTODE	HTR	6.3	.3	7AZ-OW8	8E				AMP CL A	250 100	-1 -1	100 100	12.4 12.0	3.3 3.4	.7 MEG .2 MEG	2050 1975			-35 -35	6SF7	

TYPE	DESIGN	CATHODE TYPE	HTR OR VOLTS	FIL AMPS	BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
							G-P μFDS	IN μFDS	OUT μFDS													
6SG7	PENTODE	HTR	6.3	.3	8Y-0W8	8E				AMP CL A	250 100	-1 -1	125 100	11.8 8.2	4.4 3.2	.9 MEG .25 MEG	4700 4100				-14 -11.5	6SG7
6SJ7 6SJ7GT	PENTODE	HTR	6.3	.3	8N-0W8 8N-0W8	8E 9E	.005	6.0	7.0	AMPLIFIER CLASS A	250 100	-3 -3	100 100	3.0 2.9	0.8 0.9	2500 1100	1.5MEG 0.7MEG	1650 1575			-9 -9	6SJ7 6SJ7GT
6SK7 6SK7GT	PENTODE	HTR	6.3	.3	8N-0W8 8N-0W8	8E 9E	.003 .005*	6.0 6.5*	7.0 7.5*	AMPLIFIER CLASS A	250 100	-3 -1	100 100	9.2 13.0	2.6 4.0	2000 2350	0.8MEG .12MEG	2000 1900			-35 -35	6SK7 6SK7GT
6SQ7 6SQ7GT	DUO-DI TRIODE	HTR	6.3	.3	8Q-0W8 8Q-0GT8	8E 9E	1.8	4.2	3.4	AMPLIFIER CLASS A	250 100	-2 -1		0.9 0.4		100 100	91000 110000	1100 900				6SQ7 6SQ7GT
6SR7	DUO-DIO TRIODE	HTR	6.3	.3	8Q-0W8	8E	2.0	3.4	2.8	AMP CL A	250	-9		9.5		16	8500	1900				6SR7
6T7G	DUO DI TRIODE	HTR	6.3	.15	7V-0S7	12F	1.3	2.7	4.5	AMPLIFIER CLASS A	250 135	-3 -1.5		1.2 0.9		65 65	62000 65000	1050 1000				6T7G
6U5/6G5	ELEC RAY	HTR	6.3	.3	6R-SS6	9R				TUNING IND	250 THRU 1 MEG TARGET 250v, GRID 0v FOR 90°, -22v FOR 0° 100 THRU .5 MEG TARGET 100v, GRID 0v FOR 90°, -8v FOR 0°										6U5/6G5	
6U6GT	BEAM PWR AMP	HTR	6.3	.75	7AC-0GT7	9H				POWER AMP CLASS A	200 110	-14 -10.5	135 110	55 44	3 4		20000 10000	6200 5600	5.5 2.0	3000 2000		6U6GT
6U7G	PENTODE	HTR	6.3	.3	7R-0S7	12L	.007*	5*	9*	AMP CL A	250 100	-3 -3	100 100	8.2 8.0	2.0 2.2		.8 MEG .25MEG	1600 1500			-50 -50	6U7G
6V6 6V6GT/G	BEAM POWER AMP	HTR	6.3	.45	7AC-0W7 7AC-0W7	8H 9H			2 TUBES	AMPLIFIER CLASS A PP CL AB	315 250 250 285	-13 -12.5 -15 -19	225 250 250 285	34 45 70 70	2.2 4.5 5.0 4.0		77000 52000 60000 65000	3750 4100 3750 3600	5.5 4.5 10 14	8500 5000 10000 8000		6V6 6V6GT/G
6V7G	DUO-DI TRIODE	HTR	6.3	.3	7V-0S7	12F	1.7	2.0	3.5	AMPLIFIER CLASS A	250 180	-20 -13.5		8 6		8.3 8.3	7500 8500	1100 975	.35 .16	20000 20000		6V7G
6W5G	TWIN DI	HTR	6.3	.9	6S-0S6	12E				FULL WAVE RECTIFIER	325 RMS MAX COND IN 90 DC MAX			450 RMS MAX CHOKE IN 90 DC MAX			TUBE DROP 24v AT 90ma DC			6W5G		
6W7G	PENTODE	HTR	6.3	.15	7R-0S7	12F	.007*	5.0*	8.5*	AMP CL A	250	-3	100	2.0	0.5		1.5MEG	1225			-7	6W7G
6X5 6X5GT/G	TWIN DIODE	HTR	6.3	.6	6S-0W6 6S-0GT6	8H 9H				FULL WAVE RECTIFIER	325 RMS MAX COND IN 70 DC MAX			450 RMS MAX CHOKE IN 70 DC MAX			TUBE DROP 22v AT 70ma DC			6X5 6X5GT/G		
6Y6G	BEAM PWR AMP	HTR	6.3	1.25	7AC-0M7	14C				POWER AMP CLASS A	200 135	-14 -13.5	135 135	61 58	2.2 3.5		18300 9300	7100 7000	6.0 3.6	2600 2000		6Y6G
6Y7G	TWIN TRIODE	HTR	6.3	.6	8B-0S8	12E				CL B AMP 2 SECTIONS	250 180	0 0		10.6 NO SIG 7.6 NO SIG				8 5.5	14000 7000		6Y7G	
6Z7G	TWIN TRIODE	HTR	6.3	.3	8B-0S8	12E				CL B AMP 2 SECTIONS	180 135	0 0		8.4 NO SIG 6.0 NO SIG				4.2 2.5	12000 9000		6Z7G	
6ZY5G	TWIN DI	HTR	6.3	.3	6S-0S6	12E				FULL WAVE RECTIFIER	325 RMS MAX COND IN 40 DC MAX			450 RMS MAX CHOKE IN 40 DC MAX			TUBE DROP 18v AT 40ma DC			6ZY5G		
7A4	TRIODE	HTR	6.3	.3	5AC-L8	9A	4	3.4	3.0	AMPLIFIER CLASS A	250 90	-8 0		9 10		20 20	7700 6700	2600 3000				7A4
7A5	PENTODE	HTR	6.3	.75	6AA-L8	9B				POWER AMP CLASS A	125 110	-9 -7.5	125 110	44.0 40.0	3.3 3.0		17000 14000	6000 5800	2.2 1.5	2700 2500		7A5
7A6	DUO-DI	HTR	6.3	.15	7AJ-L8	9A	.05PP			DETECTOR	150 RMS MAX			8 DC MAX			TUBE DROP 11v AT 16maDC			7A6		

TYPE	DESIGN	CATHODE			BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
		HTR OR FIL TYPE	VOLTS	AMPS			G-P μFDS	IN μFDS	OUT μFDS													
7A7	PENTODE	HTR	6.3	.3	8V-L8	9A	.005	6.0	7.0	AMP CL A	250 100	-3 -1	100 100	9.2 13.0	2.6 4.0	1600 1600	.8 MEG .12 MEG	2000 2350			-35 -35	7A7
7A8	OCTODE	HTR	6.3	.15	8U-L8	9A	.15	7.5	9.0	OSC SECT MIXER	250S 250	.05MEG -3	100	4.2 3.0	3.2		GRID #2 RES .7 MEG	.02 MEG 550C			-30	7A8
7B4	TRIODE	HTR	6.3	.3	5AC-L8	9A	1.6*	3.6*	3.4*	AMP CL A	100 250	-1 -2		0.5 0.9		100 100	85000 66000	1175 1500			7B4	
7B5	PENTODE	HTR	6.3	.4	6AE-L8	9B				POWER AMP CLASS A	250 100	-18 -7	250 100	32 9.0	5.5 1.6		68000 .1 MEG	2300 1500	3.4 .35	7600 12000	7B5	
7B6	DUO-DI TRIODE	HTR	6.3	.3	8W-L8	9A	1.5	3.0	3.0	AMPLIFIER CLASS A	250 100	-2 -1		0.9 0.4		100 100	91000 110000	1100 900			7B6	
7B7	PENTODE	HTR	6.3	.15	8V-L8	9A	.007	5.0	6.0	AMP CL A	250 100	-3 -3	100 100	8.5 8.2	1.7 1.8		.7 MEG .3 MEG	1700 1675			-40 -40	7B7
7B8	HEPTODE	HTR	6.3	.3	8X-L8	9A	.02	10.0	9.0	OSC MIXER												7B8
7C5	BEAM PWR AMP	HTR	6.3	.45	6AA-L8	9B				PUSH PULL PR AMP CL A CL AB 2 TUBE	250 250	-12.5 -15	250 250	45 70	4.5 5.0		52000 60000	4100 3750	4.5 10	5000 10000		7C5
7C6	DUO-DI TRIODE	HTR	6.3	.15	8W-L8	9A	1.4	2.4	3.0	AMPLIFIER CLASS A	250 100	-1 0		1.3 1.0		100 85	.1 MEG .1 MEG	1000 850				7C6
7C7	PENTODE	HTR	6.3	.15	8V-L8	9A	.007*	5.5*	6.5*	AMPLIFIER CLASS A	250	-3	100	2.0	0.5		2 MEG	1300			-7	7C7
7E6	DUO-DI TRIODE	HTR	6.3	.3	8W-L8	9A	1.5	3.0	3.4	AMP CL A	250	-9		9.5		16	8500	1900				7E6
7E7	DUO-DI PENTODE	HTR	6.3	.3	8AE-L8	9A	.005*	4.6*	4.6*	AMPLIFIER CLASS A	250 100	-3 -1	100 100	7.5 10.0	1.6 2.7		.7 MEG .15 MEG	1300 1600			-42.5 -36.0	7E7
7F7	TWIN TR	HTR	6.3	.3	8AC-L8	9A				CL A 1 SECT	250	-2		2.3		70	44000	1600				7F7
7G7/1232	PENTODE	HTR	6.3	.45	8V-L8	9A	.007*	9.0*	7.0*	AMP CL A	250	-2	100	6.0	2.0		.8 MEG	4500			-6	7G7/1232
7H7	PENTODE	HTR	6.3	.3	8V-L8	9A	.007*	8.0*	7.0*	AMP CL A	250 100	-2.5 -1	150 100	9.5 8.2	3.5 3.3		.8 MEG .25MEG	3800 3800			-19 -12	7H7
7J7	TRI HEX	HTR	6.3	.3	8AR-L8	9A	.01*	5.5*	7.5*	OSC-TRIODE MIXER HEX	250S 250	.05MEG -3	100	5.4 1.3	2.9		TRIODE PLATE RESISTOR 1.5MEG	.02 MEG 300C			-20	7J7
7L7	PENTODE	HTR	6.3	.3	8V-L8	9A	.01*	8.0*	6.5*	AMP CL A	250 100	-1.5 -1	100 100	4.5 5.5	1.5 2.4		1 MEG .1 MEG	3100 3000			-5 -5	7L7
7N7	TWIN TRIODE	HTR	6.3	.3	8AC-L8	9B	3.0L* 3.0R*	3.4L* 2.9R*	2.0L* 2.4R*	CL A 1 SECT	250 90	-8 0		9 10		20 20	7700 6700	2600 3000				7N7
7Q7	HEPTODE	HTR	6.3	.3	8AL-L8	9A	.2*	9.0*	9.0*	OSC SECT MIXER	250	-2	100	3.5	8.5		OSC GRID RES 1.0 MEG	OSC GRID CUR -.5ma 550C			-35	7Q7
7R7	DUO-DI PENTODE	HTR	6.3	.3	8AE-L8	9A				AMP CL A	250 100	-1 -1	100 100	5.7 5.5	1.7 2.0		1.0 MEG .35 MEG	3200 3000			-20 -16	7R7
7Y4	TWIN DI	HTR	6.3	.5	5AB-L8	9A				F W RECT												7Y4
10	TRIODE	FIL	7.5	1.25	4D-SM4	16B	7	4	3	POWER AMP CLASS A	425 350	-39 -22.0		18 10		8 8	5000 6000	1600 1330	1.6 0.4	10200 13000		10
12A	TRIODE	FIL	5.0	.25	4D-SM4B	14D	7.5	4.0	3.0	AMPLIFIER CLASS A	180 135	-13.5 -9		7.7 6.2		8.5 8.5	4700 5100	1800 1650	.285 .130	10650 9000		12A

TYPE	DESIGN	CATHODE			BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
		HTR OR TYPE	FIL VOLTS	FIL AMPS			G-P μFDS	IN μFDS	OUT μFDS													
12A5	PENTODE	HTR	12.6 or 6.3	.3 .6	7F-SS7	12B				POWER AMP CLASS A	180 100	-25 -15	180 100	45 17	8 3		35000 50000	2400 1700	3.4 0.8	3300 4500		12A5
12A7	DIODE PENTODE	HTR	12.6	.3	7K-SS7	12H				H W RECT AMP CL A	125 RMS MAX 135	-13.5	135	30 DC MAX 9	2.5 100		TUBE DROP .1 MEG	15v AT 975	60ma DC 13500			12A7
12A8GT	HEPTODE	HTR	12.6	.15	8A-OW8	9F				OSC MIXER	CHARACTERISTICS SAME AS FOR TYPE 6A8GT										12A8GT	
12B8GT	TRIODE PENTODE	HTR	12.6	.3	8T-OGT8	9L	2.3 .015	5.0 5.2	6.3 9.6	AMP TRIODE CLASS A AMP PENT CLASS A	100 90 100 90	-1 0 -3 -3		0.6 2.8 8 7		110 90 360 360	73000 37000 .17MEG .20MEG	1500 2400 2100 1800			-2.5 -2.5 -42.5	12B8GT
12C8	DUO-DI PENTODE	HTR	12.6	.15	8E-OW7	8F	.005	6	9	AMPLIFIER CLASS A	250	-3	125	10	2.3		.6 MEG	1325			-21	12C8
12F5GT	TRIODE	HTR	12.6	.15	5M-OW5	9J				AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6F5GT										12F5GT	
12J5GT	TRIODE	HTR	12.6	.15	6Q-OW6	9H				AMP CL A	CHARACTERISTICS SAME AS TYPE 6J5GT										12J5GT	
12J7GT	PENTODE	HTR	12.6	.15	7R-OW7	9F				AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6J7GT										12J7GT	
12K7GT	PENTODE	HTR	12.6	.15	7R-OW7	9F				AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6K7GT										12K7GT	
12K8GT	TRIODE HEXODE	HTR	12.6	.15	8K-OW8	9GA				OSC TRIODE MIXER HEX	CHARACTERISTICS SAME AS FOR TYPE 6K8GT										12K8GT	
12Q7GT	DUO-DI TRIODE	HTR	12.6	.15	7V-OW7	9F				AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6Q7GT										12Q7GT	
12SA7 12SA7GT	HEPTODE	HTR	12.6	.15	8R-OW8 8AD-OW8	8E 9E	.13 .20	9.5 11.0*	12 12.0*	OSC-MIXER	CHARACTERISTICS SAME AS FOR TYPE 6SA7										12SA7 12SA7GT	
12SC7	TWIN TRI	HTR	12.6	.15	8S-OW8	8E				AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6SC7										12SC7	
12SF5 12SF5GT	TRIODE	HTR	12.6	.15	6AB-OW6 6AB-OGT6	8E 9H				AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6SF5GT										12SF5 12SF5GT	
12SJ7 12SJ7GT	PENTODE	HTR	12.6	.15	8N-OW8 8N-OW8	8E 9E	.005	6.0	7.0	AMPLIFIER CLASS A	CHARACTERISTICS SAME AS FOR TYPE 6SJ7										12SJ7 12SJ7GT	
12SK7 12SK7GT	PENTODE	HTR	12.6	.15	8N-OW8 8N-OW8	8E 9E	.003 .005	6.0 6.5	7.0 7.5	AMPLIFIER CLASS A	CHARACTERISTICS SAME AS FOR TYPE 6SK7										12SK7 12SK7GT	
12SQ7 12SQ7GT	DUO-DI TRIODE	HTR	12.6	.15	8Q-OW8 8Q-OGT8	8E 9E	1.8	4.2	3.4	AMPLIFIER CLASS A	CHARACTERISTICS SAME AS FOR TYPE 6SQ7										12SQ7 12SQ7GT	
12SR7	DUO-DI TRIODE	HTR	12.6	.15	8Q-OW8	8E				AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6SR7										12SR7	
12Z3	DIODE	HTR	12.6	.3	4G-SS4	12B				H W RECT	250 RMS MAX			60 DC MAX			TUBE DROP 18v AT 120ma DC					12Z3
14A7/12B7	PENTODE	HTR	12.6	.15	8V-L8	9A	.005*	5.5*	7.0*	AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 7A7										14A7/12B7	
14H7	PENTODE	HTR	12.6	.15	8V-L8	9A	.007*	8.0*	7.0*	AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 7H7										14H7	
15	PENTODE	HTR	2.0	.22	5F-SS5	12H	.01*	2.4	7.8	AMPLIFIER CLASS A	135 67.5	-1.5 -1.5	67.5 67.5	1.85 1.85	0.3 .3	600 450	.8 MEG .63MEG	750 710				15
19	TWIN TR	FIL	2.0	.26	6C-SS6	12B				CL B 2 SECT	CHARACTERISTICS SAME AS FOR TYPE 1J6G										19	
20	TRIODE	FIL	3.3	.132	4D-SS4	9Q	4.1	2.0	2.3	PR AMP CL A	135	-22.5		6.5		3.3	6300	525	.11	6500		20
22	TETRODE	FIL	3.3	.132	4K-SM4	14E	.02*	3.3	12	AMP CL A	135	-1.5	67.5	3.7	1.3		.33MEG	500				22

TYPE	DESIGN	CATHODE HTR OR TYPE	FIL VOLTS	AMP AMPS	BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
							G-P μFDS	IN μFDS	OUT μFDS													
24A 24S	TETRODE	HTR	2.5	1.75	5E-SM5 5E-SM5	14E	.007*	5.3	10.5	AMPLIFIER CLASS A	250 180	-3 -3	90 90	4 4	1.7 1.7	630 400	.6 MEG .4 MEG	1050 1000				24A 24S
25A6 25A6G 25A6GT	PENTODE	HTR	25	.3	7S-OW7 7S-OM7 7S-OW7	8H 14C 9H				AMPLIFIER CLASS A	160 135 95	-18 -20 -15	120 135 95	33 37 20	6.5 8 4		42000 35000 45000	2375 2450 2000	2.2 2.0 0.9	5000 4000 4500		25A6 25A6G 25A6GT
25A7G 25A7GT	DIODE PENTODE	HTR	25	.3	8F-OM8 8F-OGT8	14C 9H				H W RECT AMP CL A	117 RMS MAX 100		75 DC MAX 20.5	4	90		TUBE DROP 23v AT 50000	150ma DC 1800	.77	4500		25A7G 25A7GT
25AC5G 25AC5GT	TRIODE	HTR	25	.3	6Q-OS6 6Q-OGT6	12K 9H	6A5G DRIVER			DIR C'P'D AMP	110 FROM DRIVER 45						2	2000		25AC5G 25AC5GT		
25B6G	PENTODE	HTR	25	.3	7S-OM7	14C				POWER AMP CLASS A	200 135 105	-23 -22 -16	135 135 105	62 61 48	1.8 2.5 2.0		18000 15000 15500	5000 5000 4800	7.1 4.3 2.4	2500 1700 1700		25B6G
25B8GT	TRIODE PENTODE	HTR	25	.15	8T-OGT8	9L				CL A TRIODE CL A PENT	100 100	-1 -3	100	0.6 7.6	2.0	113	.08MEG .19MEG	1500 2000			-2.5 -41	25B8GT
25C6G	BM PWR	HTR	25	.3	7AC-OM7	14C				PR AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6Y6G										25C6G	
25L6 25L6GT/G	BEAM PWR AMP	HTR	25	.3	7AC-OW7 7AC-OGT7	8H 9H				POWER AMP CLASS A	110 200	-7.5 -8.0	110 110	49 50	4 1.5		10000 35000	8200 8250	2.2 4.7	2000 3000		25L6 25L6GT/G
25Z5 25Z6 25Z6GT/G	TWIN DIODE	HTR	25	.3	6E-SS6 7Q-OW7 7Q-OGT7	12B 8H 9H				H W RECT V DOUBLER	235 RMS MAX 117 RMS MAX		75 DC MAX 75 DC MAX				TUBE DROP 22v AT 150ma DC					25Z5 25Z6 25Z6GT/G
26	TRIODE	FIL	1.5	1.05	4D-SM4	14D	8.1	3.5	2.2	AMP CL A	180	-14.5		6.2		8.3	7300	1140				26
27 27S	TRIODE	HTR	2.5	1.75	5A-SS5 5A-SS5	12B	3.3	3.5	3.0	AMPLIFIER CLASS A	250 135	-21 -9		5.2 4.5		9 9	9250 9000	975 1000				27 27S
30	TRIODE	FIL	2.0	.06	4D-SS4	12B	6.0	3.7	2.1	AMP CL A BIAS DET	180 180	-13.5 -18		3.1	9.3	10300	900	(SEE LH4G ALSO)			30	
31	TRIODE	FIL	2.0	.13	4D-SS4	12B	5.7	3.5	2.7	AMPLIFIER CLASS A	180 135	-30 -22.5		12.3 8		3.8 3.8	3600 4100	1050 925	.375 .185	5700 7000		31
32	TETRODE	FIL	2.0	.06	4K-SM4	14E	.015*	5.3	10.5	AMPLIFIER CLASS A	180 135	-3 -3	67.5 67.5	1.7 1.7	0.4 0.4	780 610	1.2MEG .95MEG	650 640				32
32L7GT	DIODE BM PWR	HTR	32.5	.3	8Z-OGT8	9H				H W RECT POWER AMP CLASS A	125 RMS MAX 110 90	-7.5 -7	110 90	40 27	3 2		15000 17000	6000 4800	1.5 1.0	2500 2600		32L7GT
33	PENTODE	FIL	2.0	.26	5K-SM5	14D				POWER AMP CLASS A	180 135	-18 -13.5	180 135	22 14.5	5 3	90 70	55000 50000	1700 1450	1.4 0.7	6000 7000		33
34	PENTODE	FIL	2.0	.06	4M-SM4	14E	.015*	6.0	11.5	AMPLIFIER CLASS A	180 67.5	-3 -3	67.5 67.5	2.8 2.7	1.0 1.1	620 224	1 MEG 0.4MEG	620 560			-22.5 -22.5	34
35/51 35S/51S	TETRODE	HTR	2.5	1.75	5E-SM5 5E-SM5	14E	.007*	5.3	10.5	AMPLIFIER CLASS A	250 180	-3 -3	90 90	6.5 6.3	2.5 2.5	420 305	0.4MEG 0.3MEG	1050 1020			-40.0 -40.0	35/51 35S/51S
35A5	BM PWR	HTR	32	.15	6AA-L8	9B				PR AMP CL A	110 200	-7.5 -8.0	110 110	40 41	3.0 2.0		14000 40000	5900 5900	1.5 3.3	2500 4500		35A5
35L6GT/G	BM PWR	HTR	35	.15	7AC-OGT7	9H				PR AMP CL A	110 200	-7.5 -8.0	110 110	40 41	3.0 2.0		13800 40000	5800 5900	1.5 3.3	2500 4500		35L6GT/G
35Z3	DIODE	HTR	32	.15	4Z-L8	9B				H W RECT	235 RMS MAX		100 DC MAX		TUBE DROP 20v AT 200ma DC						35Z3	

TYPE	DESIGN	CATHODE HTR OR TYPE	FIL VOLTS	FIL AMPS	BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
							G-P μFDS	IN μFDS	OUT μFDS													
35Z4GT	DIODE	HTR	35	.15	5AA-OGT6	9H				H W RECT	235 RMS MAX		100 DC MAX		TUBE DROP 18v AT 200ma DC						35Z4GT	
35Z5GT/G	DIODE	HTR TAP	35 7.5	.15 .15	6AD-OGT6	9H				H W RECT LAMP TAP	235 RMS MAX		100 DC MAX OR 60 DC MAX WITH 6.3v - 150 ma PANEL LAMP		TUBE DROP 18v AT 200ma DC						35Z5GT/G	
35Z6G	TWIN DIODE	HTR	35	.3	7Q-OM7	14C				H W RECT V DOUBLER	235 RMS MAX 117 RMS MAX		110 DC MAX 110 DC MAX		TUBE DROP 20v AT 220ma DC						35Z6G	
36	TETRODE	HTR	6.3	.3	5E-SS5	12H	.007*	3.7	9.2	AMP CL A BIAS DET	250 250	-3 -8	90 90	3.2 0.1	1.7 WITH NO SIGNAL	595 1080	.55MEG					36
37	TRIODE	HTR	6.3	.3	5A-SS5	12B	2.0	3.5	2.2	AMP CL A BIAS DET	250 250	-18 -28		7.5 .2	9.2 WITH NO SIGNAL	8400 1100						37
38	PENTODE	HTR	6.3	.3	5F-SS5	12H	.3	3.5	7.5	POWER AMP CLASS A	250 135	-25 -13.5	250 135	22 9	3.8 1.5	120 120	.1 MEG .13MEG	1200 925	2.5 0.55	10000 13500		38
39/44	PENTODE	HTR	6.3	.3	5F-SS5	12H	.007*	3.5	10	AMPLIFIER CLASS A	250 90	-3 -3	90 90	5.8 5.6	1.4 1.6	1050 360	1.0MEG .38MEG	1050 950			-42.5 -42.5	39/44
40	TRIODE	FIL	5.0	.25	4D-SM4	14D	8.8	3.4	1.5	AMP CL A	180	-3		0.2		30	.15MEG	200 PL RESISTOR .25MEG			40	
41	PENTODE	HTR	6.3	.4	6B-SS6	12B				PR AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6K6G											41
42	PENTODE	HTR	6.3	.7	6B-SM6	14D				POWER AMP	CHARACTERISTICS SAME AS FOR TYPE 6F6G											42
43	PENTODE	HTR	25	.3	6B-SM6	14D				POWER AMP	CHARACTERISTICS SAME AS FOR TYPE 25A6G											43
45	TRIODE	FIL	2.5	1.5	4D-SM4	14D	7	4	3	POWER AMP CLASS A CL AB 2 TUBE	275 180 275	-56 -31.5 -68		36 31 28		3.5 3.5	1700 1650	2050 2125	2 .825 18	4600 2700 3200		45
45Z5GT	DIODE	HTR	45	.15	6AD-OGT6	9H				H W RECT LAMP TAP	235 RMS MAX		100 DC MAX OR 60 DC MAX WITH 6.3v - 150 ma PANEL LAMP		TUBE DROP 16v AT 200ma DC						45Z5GT	
46	DUAL GRID TRIODE	FIL	2.5	1.75	5C-SM5	16B	G2 TIED TO P G1 TIED TO G2			PR AMP CL A PR AMP CL B 2 TUBES	250 400 300	-33 0 0		22 12 8	NO SIGNAL NO SIGNAL	5.6	2380	2350	1.25 20 16	6400 5800 5200		46
47	PENTODE	FIL	2.5	1.75	5B-SM5	16B				PR AMP CL A	250	-16.5	250	31	6	150	60000	2500	2.7	7000		47
48	PENTODE	HTR	30	.4	6B-SM6	16B				PR AMP CL A	125	-20	100	56	9.5		3900	2.5	1500		48	
49	DUAL GRID TRIODE	FIL	2.0	.12	5C-SM5	14D	G2 TIED TO P G1 TIED TO G2			PR AMP CL A PR AMP CL B 2 TUBES	135 180 135	-20 0 0		6 4 2.6	NO SIGNAL NO SIGNAL	4.7	4175	1125	.17 3.5 2.3	11000 12000 8000		49
50	TRIODE	FIL	7.5	1.25	4D-SM4B	19A				POWER AMP CLASS A	450 350	-84 -63		55 45		3.8 3.8	1800 2000	2100 2000	4.6 2.4	4350 4100		50
50C6G	BM PWR	HTR	50	.15	7AC-OM7	14C				PR AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6Y6G											50C6G
50L6GT	BM PWR	HTR	50	.15	7AC-OGT7	9H				PR AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 25L6GT											50L6GT
50Y6GT/G	TWIN DIODE	HTR	50	.15	7Q-OM7	9H				H W RECT V DOUBLER	235 RMS MAX 117 RMS MAX		75 DC MAX 75 DC MAX		TUBE DROP 22v AT 150ma DC						50Y6GT/G	
50Z7G	TWIN DIODE	HTR	50	.15	8AN-OS7	12E				H W RECT V DOUBLER	117 RMS MAX 117 RMS MAX		65 DC MAX 65 DC MAX		TUBE DROP 21v AT 130ma DC						50Z7G	
52	2 GRID TRIODE	FIL	6.3	.3	5C-SM5	14D	G2 TIED TO P G1 TIED TO G2			PR AMP CL A CL B 2 TUBE	110 180	0 0		43 3	NO SIGNAL	5.2	1750	3000	1.5 5	2000 10000		52
53	TWIN TRIODE	HTR	2.5	2.0	7B-SM7	14D				POWER AMP	CHARACTERISTICS SAME AS FOR TYPE 6N7G											53

TYPE	DESIGN	CATHODE			BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
		TYPE	HTR OR VOLTS	FIL AMPS			G-P μFDS	IN μFDS	OUT μFDS													
55 55S	DUO-DI TRIODE	HTR	2.5	1.0	6G-SS6 6G-SS6	12H	1.7	2.0	3.5	AMPLIFIER CLASS A	250 135	-20 -10.5		8 3.7		8.3 8.3	7500 11000	1100 750	.3 .075	20000 25000		55 55S
56 56S 56AS	TRIODE	HTR	2.5 2.5 6.3	1.0 1.0 .3	5A-SS5 5A-SS5 5A-SS5	12B	3.2	3.2	2.2	AMPLIFIER CLASS A BIAS DET	250 100 250	-13.5 -5 -20		5 2.5 0.2 WITH NO SIGNAL		13.8 13.8	9500 12000	1450 1150				56 56S 56AS
57 57S 57AS	PENTODE	HTR	2.5 2.5 6.3	1.0 1.0 .4	6F-SS6 6F-SS6 6F-SS6	12J	.007*	5.0	6.5	AMPLIFIER CLASS A	250 100	-3 -3	100 100	2 2	0.5 0.5	1500 1185	1.5MEG 1.0MEG	1225 1185			-7 -7	57 57S 57AS
58 58S 58AS	PENTODE	HTR	2.5 2.5 6.3	1.0 1.0 .4	6F-SS6 6F-SS6 6F-SS6	12J	.007*	5.0	6.5	AMPLIFIER CLASS A	250 100	-3 -3	100 100	8.2 8	2 2.2	1280 375	.8 MEG .25MEG	1600 1500			-50 -50	58 58S 58AS
59	PENTODE	HTR	2.5	2.0	7A-SM7	16B	PENT CONN G <sub>2</sub> , G <sub>3</sub> TO PL 2 TUBES G <sub>3</sub> TO P <sub>1</sub>			PR AMP CL A TRI CONN PR AMP CL B G <sub>1</sub> TO G <sub>2</sub>	250 250 400 300	-18 -28 0 0	250	35 26 26 20	9 6 NO SIGNAL NO SIGNAL	100 2300	40000	2500 2600	3 1.25 20 15	6000 5000 6000 4600		59
70A7GT	DI BEAM PR AMP	HTR	70	.15	8AB-OGT8	9H				H W RECT PR AMP CL A	125 RMS MAX 110	60 DC MAX -7.5	60 110		3 80	TUBE DROP 14v AT 120ma DC 5800						70A7GT
70L7GT	DIODE BM PWR	HTR	70	.15	8AA-OGT8	9H				H W RECT PR AMP CL A	125 RMS MAX 110	70 DC MAX -7.5	70 110		3	TUBE DROP 20v AT 140ma DC 15000						70L7GT
71A	TRIODE	FIL	5	.25	4D-SM4B	14D				POWER AMP CLASS A	180 90	-40.5 -16.5		20 10	3 3	1750 2170	1700 1400	.79 .125	4800 3000		71A	
75 75S	DUO-DI TRIODE	HTR	6.3	.3	6G-SS6 6G-SS6	12H	1.7	2.0	3.5	AMPLIFIER CLASS A	250	-2		0.9		100	91000	1100				75 75S
76	TRIODE	HTR	6.3	.3	5A-SS5	12B				AMPLIFIER	CHARACTERISTICS SAME AS FOR TYPE 56										76	
77	PENTODE	HTR	6.3	.3	6F-SS6	12H	.007*	4.0	11	AMPLIFIER CLASS A	250 100	-3 -1.5	100 60	2.3 1.7	0.5 0.4	1.5MEG 0.6MEG	1250 1100			-7.5 -5.5	77	
78	PENTODE	HTR	6.3	.3	6F-SS6	12H	.007*	4.5	11	AMPLIFIER	CHARACTERISTICS SAME AS FOR TYPE 6K70										78	
79	TWIN TR	HTR	6.3	.6	6H-SS6	12H				POWER AMP	CHARACTERISTICS SAME AS FOR TYPE 6Y7G										79	
80	TWIN DI	FIL	5.0	2.0	4C-SM4	14D				F W RECT	CHARACTERISTICS SAME AS FOR TYPE 5Y3G										80	
81	DIODE	FIL	7.5	1.25	4B-SM4	16B				H W RECT	700 RMS MAX	85 DC MAX				TUBE DROP 91v AT 170ma DC					81	
82	TWIN DI	FIL	2.5	3.0	4C-SM4	14D	(MERCURY VAPOR)			FULL WAVE RECTIFIER	450 RMS MAX COND IN 115 DC MAX 550 RMS MAX CHOKe IN 115 DC MAX					TUBE DROP 15v					82	
83	TWIN DI	FIL	5.0	3.0	4C-SM4	16B	(MERCURY VAPOR)			FULL WAVE RECTIFIER	450 RMS MAX COND IN 225 DC MAX 550 RMS MAX CHOKe IN 225 DC MAX					TUBE DROP 15v					83	
83v	TWIN DI	HTR	5.0	2.0	4AD-SM4	14D				FULL WAVE RECTIFIER	375 RMS MAX COND IN 175 DC MAX 500 RMS MAX CHOKe IN 175 DC MAX					TUBE DROP 23v AT 175ma DC					83v	
84/6Z4	TWIN DI	HTR	6.3	.5	5D-SS5	12B				FULL WAVE RECTIFIER	325 RMS MAX COND IN 60 DC MAX 450 RMS MAX CHOKe IN 60 DC MAX					TUBE DROP 20v AT 60ma DC					84/6Z4	
85	DUO-DI TRIODE	HTR	6.3	.3	6G-SS6	12H	1.7	2.0	3.5	AMP CL A	CHARACTERISTICS SAME AS FOR TYPE 6V70										85	
85AS	DUO-DI TRIODE	HTR	6.3	0.3	6G-SS6					AMP CL A	250	-9		5.5		20	1250					85AS

TYPE	DESIGN	CATHODE			BASING DATA	MAX SIZE VIEW	CAPACITIES			USED AS	PLATE VOLTS	GRID VOLTS	SCR VOLTS	PLATE MA	SCR MA	AMP FACT	PLATE RESIS OHMS	MUT COND μMHO	OUT PUT WATTS	LOAD RESIS OHMS	CUT OFF VOLTS	TYPE
		TYPE	HTR OR FIL VOLTS	FIL AMPS			G-P μFDS	IN μFDS	OUT μFDS													
89	PENTODE	HTR	6.3	.4	6F-SS6	12H	G3 TIED TO K G <sub>1</sub> TIED TO G <sub>2</sub>			PENT PR AMP CLASS A CL B 2 TUBE	250 135 180	-25 -13.5 0	250 135	32 14 6 NO SIG	5.5 2.2	125 125 G3 TIED TO P	70000 92500	1800 1350	3.4 0.75 3.5	6750 9200 9400		89
V99 X99	TRIODE	FIL	3.3	.063	4E-SV4 4D-SS4	8A 9Q	3.3	2.5	2.5	AMP CL A BIAS DET	90 90	-4.5 -10.5		2.5 0.2 WITH NO SIGNAL	6.6 15500	425					V99 X99	
117L7GT 117M7GT	DI BEAM PR AMP	HTR	117	.09	8A0-OGT8	9HA				H W RECT PR AMP CL A	117 RMS MAX 105	-5.2	105	75 DC MAX 43	4	TUBE DROP 16v AT 160ma DC 17000	5300	.85	4000		117L7GT 117M7GT	
117N7GT	DI BEAM PR AMP	HTR	117	.09	8AV-OGT8	9HA				H W RECT PR AMP CL A	117 RMS MAX 100	-6	100	75 DC MAX 51	6.0	TUBE DROP 17v AT 150ma DC 16000	7000	1.2	3000		117N7GT	
117Z6GT	TWIN DIODE	HTR	117	.075	7Q-OGT7	9H				RECTIFIER V DOUBLER	235 RMS MAX 117 RMS MAX			60 DC MAX 60 DC MAX		TUBE DROP 15.5v AT 125ma DC					117Z6GT	
182B/482B	TRIODE	FIL	5.0	1.25	4D-SM4	14D				POWER AMP CLASS A	250	-35		18	5	1500					182B/482B	
183/483	TRIODE	FIL	5.0	1.25	4D-SM4	14D				POWER AMP CLASS A	250	-58		20	3	1500					183/483	
485	TRIODE	HTR	3.0	1.25	5A-SS5	12B				AMP CL A	180	-10		5.2	12.8	1300					485	
950	PENTODE	FIL	2.0	.12	5K-SM5	14D				POWER AMP	CHARACTERISTICS SAME AS FOR TYPE 1J5G										950	
XXL	TRIODE	HTR	6.3	.3	5AC-L8	9A	2.0	3.4	2.6	AMP CL A	250 100	-8 0		8 10	20 25	8700 7000	2300 3600				XXL	
XXD	TWIN TRIODE	HTR	12.6	.15	8AC-L8	9A	2.3	2.2	1.6	AMP CL A 1 SEC	250 100	-10 0		9 10.8	16 17	7600 6500	2100 2600				XXD	
BA	TWIN DI	COLD			4J-SM4	19B	GAS FILLED			F W RECT	350 RMS MAX		350 DC MAX		TUBE DROP 80v				BA			
BH	TWIN DI	COLD			4J-SM4	14A	GAS FILLED			F W RECT	350 RMS MAX		125 DC MAX		TUBE DROP 90v				BH			
BR	DIODE	COLD			4H-SM4	12A	GAS FILLED			H W RECT	300 RMS MAX		50 DC MAX		TUBE DROP 60v				BR			
VR90-30	DIODE	COLD			4W-OS7	12E	GAS FILLED			VOLTAGE REGULATOR	90V OUTPUT THROUGH A CURRENT RANGE 10-30ma										VR90-30	
VR105-30	DIODE	COLD			4W-OS7	12E	GAS FILLED			VOLTAGE REGULATOR	105V OUTPUT THROUGH A CURRENT RANGE 5-30ma										VR105-30	
VR150-30	DIODE	COLD			4W-OS7	12E	GAS FILLED			VOLTAGE REGULATOR	150V OUTPUT THROUGH A CURRENT RANGE 5-30ma										VR150-30	



### PLUG-IN RESISTORS

FOR AC-DC RECEIVERS WITH 300 MILLIAMPERE SERIES CONNECTED HEATERS. (NORMAL LINE VOLTAGE - 117.5 VOLTS)

TYPE	TYPICAL TUBE LINEUP		TOTAL DROP IN TUBE FILAMENTS VOLTS	TOTAL DROP IN RESISTOR VOLTS	NUMBER AND ma OF PANEL LAMPS*	CIRCUIT AND BASE	REPLACEMENT TYPES
	6 VOLT TYPES	25 VOLT TYPES					
42A	4	2	75.2	42.3	0	A-OCTAL	K42A, 42AG, K42AG, K43A
K42B	4	2	75.2	42.3	1-150	B-OCTAL	K42B, K42BG, K43B, 135K1
BK42B	HAS BALLASTING ACTION FOR PANEL LAMP TAP						K40B
L42B	4	2	75.2	42.3	1-250	B-OCTAL	BL42B, L42BG, 5547
L42C	4	2	75.2	42.3	2-250	C-OCTAL	BL42C, L42CG, 69-2037, 5548
49A	3	2	68.9	48.6	0	A-OCTAL	K49A, 49KA, K50A
K49B	3	2	68.9	48.6	1-150	B-OCTAL	BK49B, 49KB, K43B2, 165KB, W43357, 115.41, 5533, 160KB, 5623
K49C	3	2	68.9	48.6	2-150	C-OCTAL	49KC, BK49C, A16040, K50C, 81966-2, 5534
BK49C/K49C	HAS BALLASTING ACTION FOR PANEL LAMP TAP						
K49D	3	2	68.9	48.6	2-150	D-OCTAL	49KD, BK49D, BK49D-10, 5633, 5518, 69116, 115.28, 3334, 3334A
L49B	3	2	68.9	48.6	1-250	B-OCTAL	49LB, BL49B, 2UR224, 165LB, 160LB, 69.2033, 5550, 5511
L49C	3	2	68.9	48.6	2-250	C-OCTAL	49LC, 160LC, 165LC, L49-5.5C, BL49C, 2905, 5552
L49D	3	2	68.9	48.6	2-250	D-OCTAL	3CR-241, 49LD, BL49D, 5567
K55B	2	2	62.6	54.9	1-150	B-OCTAL	55KB, K55BG, K54B, 180KB, 185KB, BK55B, 3613, 5519, 5535
K55C	2	2	62.6	54.9	2-150	C-OCTAL	BK55C, 185KB, 5536
K55D	2	2	62.6	54.9	2-150	D-OCTAL	BK55D, 185KD, 115.22
L55B	2	2	62.6	54.9	1-250	B-OCTAL	2V4215, 185LB, 2903, 5555, 8598
L55C	2	2	62.6	54.9	2-250	C-OCTAL	85LC, L55-5.5C, 185LC, 2904
L55D	2	2	62.6	54.9	2-250	D-OCTAL	85LD, 185LD
M73B	3	1	43.9	73.6	1-200	B-OCTAL	
165R	3	2	68.9	48.6	0	A-UX	
165R4	3	2	68.9	48.6	1-150	B-UX	50B2
185R	2	2	62.6	54.9	0	A-UX	50X3
185R4	2	2	62.6	54.9	1-150	B-UX	
185RB	2	2	62.6	54.9	2-150	C-UX	50X3T

THE FOLLOWING TYPES ARE FOR USE IN BATTERY OPERATED RECEIVERS USING 2 VOLT TUBES WITH FILAMENTS IN PARALLEL.

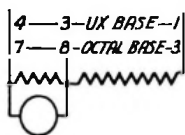
	TOTAL CURRENT DRAIN OF TUBES			
1A1	500 ma	2	1	A-UX
1B1	360 "	2	1	A-UX
NB2	360 "	2		
NB8	720 "	2		

DEPENDING UPON THE WAY IN WHICH IT IS INSERTED IN A SPECIAL SOCKET, AN NB TYPE MAY BE USED WITH SETS OBTAINING FILAMENT SUPPLY FROM EITHER A DRY PACK, AIR CELL BATTERY OR STORAGE BATTERY.

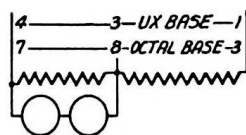
\*PANEL LAMPS TO BE USED WITH THESE PLUG-IN RESISTORS MUST HAVE THE CURRENT RATING SHOWN. THE ACTUAL TYPE WILL DEPEND UPON THE TYPE OF BASING REQUIRED AND MAY BE OBTAINED FROM THE PANEL LAMP DATA IN THIS CHART.



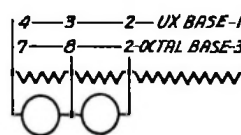
A



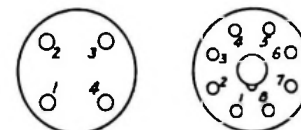
B



C



D



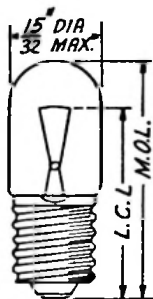
BOTTOM VIEWS  
UX BASE      OCTAL BASE

### RADIO PANEL LAMPS

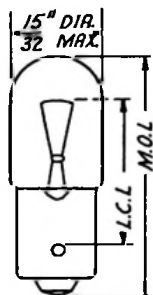
Type No.	Volts	Amps.	C.P.	Bulb	Base	Bead Color	L.C.L. Inches	M.O.L. Inches
40	6-8	0.15	0.5	T-3 1/4	Min. Screw	Brown	29/32	1 1/8
40-A	6-8	0.15	0.5	T-3 1/4	Min. Bayonet	Brown	23/32	1 1/8
41	2.5	0.5	0.5	T-3 1/4	Min. Screw	White	29/32	1 1/8
42	3.2	0.5	0.75	T-3 1/4	Min. Screw	Green	29/32	1 1/8
43	2.5	0.5	0.5	T-3 1/4	Min. Bayonet	White	23/32	1 1/8
44	6-8	0.25	0.8	T-3 1/4	Min. Bayonet	Blue	23/32	1 1/8
45	3.2	0.5	0.75	T-3 1/4	Min. Bayonet	Green	23/32	1 1/8
46	6-8	0.25	0.8	T-3 1/4	Min. Screw	Blue	29/32	1 1/8
48	2.0	0.06	0.03	T-3 1/4	Min. Screw	Pink	29/32	1 1/8
49	2.0	0.06	0.03	T-3 1/4	Min. Bayonet	Pink	23/32	1 1/8
49-A	2.1	0.12	0.07	T-3 1/4	Min. Bayonet	White	23/32	1 1/8
50	6-8	0.2	1.0	G-3 1/2	Min. Screw	White	23/32	15/16
292	2.9	0.17	0.3	T-3 1/4	Min. Screw	White	29/32	1 1/8
292-A	2.9	0.17	0.3	T-3 1/4	Min. Bayonet	White	23/32	1 1/8

### AUTOMOBILE MINIATURE TYPES

51	6-8	0.2	1.0	G-3 1/2	Min. Bayonet	White	1/2	15/16
55	6-8	0.4	1.5	G-4 1/2	Min. Bayonet	White	1/2	1 1/16



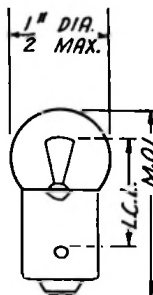
40  
41  
42  
46  
48  
292



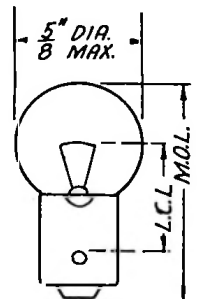
40A  
43  
44  
45  
49  
49A  
292A



50



51



55

INTERCHANGEABLE TUBE TYPES\*

TYPE	REPLACE WITH	TYPE	REPLACE WITH	TYPE	REPLACE WITH	TYPE	REPLACE WITH	TYPE	REPLACE WITH	TYPE	REPLACE WITH
AD	1-V	2A3H	Δ2A3	6U5	6U5/6G5	36A	36	98	84/6Z4	230	30
AF	82	G4	2S/4S	6X5MG	#6X5GT/G	37A	37	WX99	X99	231	31
AG	83	G4S	2S/4S	6Z3	1-V	38A	38	112	12A	232	32
AX	01A	KR5	6A4/LA	6Z4	84/6Z4	39	39/44	112A	12A	233	33
B	V99	5Y3	5Y3G	7A7LM	7A7	39A	39/44	117L7GT	<u>117L7GT</u>	234	34
BX	X99	5Z4GT/G	5Z4	7B5LT	7B5	43MG	25A6GT		<u>117M7GT</u>	235	35/51
E	20	5Z4MG	5Z4	7B6LM	7B6	44	39/44	117M7GT	<u>117L7GT</u>	236	36
G	40	6A7S	#6A7	7B8LM	7B8	45A	45		<u>117M7GT</u>	237	37
H	01A	6A8MG	#6A8GT	7C5LT	7C5	HZ50	12Z3	120	20	238	38
LA	6A4/LA	6AC5MG	6AC5G	12A8G	12A8G	51	35/51	171	71A	239	39/44
PZ	47	6B6	6B6G	12B7	14A7/12B7	51S	35S/51S	171A	71A	240	40
PZH	2A5	6B6MG	6B6G	12B7ML	14A7/12B7	56A	Δ76	171AC	71A	245	45
00	01A	6B7S	#6B7	12J7G	12J7GT	57A	Δ606	171B	71A	247	47
D 1/2	81	6B8GT	6B8 or 6B8G	12K8	#12K8GT	58A	Δ78	182A	Δ71A	250	50
DL	80	6C5MG	#6C5GT	12Q7G	12Q7GT	64	Δ36	182B	**183/483	280	80
DE1	27	6F5MG	#6F5GT	12SA7G	12SA7GT	64A	36	V199	V99	280M	83V
KR1	1-V	6F6GT	6F6 or Δ6K6GT/G	14Z3	12Z3	65	Δ39/44	X199	X99	281	81
RE1	80	6F6MG	6F6 or 6F6G	AC22	24A	65A	39/44	200	00A	288	83V
01	01A	6F7S	#6F7	24	24A	67	Δ37	201	01A	C299	V99
1	1-V	6G5	6U5/6G5	KR25	2A5	67A	37	201A	01A	X299	X99
01AA	01A	6H5	6U5/6G5	25/25S	1B5/25S	68	Δ38	202	10	401A	01A
01B	Δ01A	6H6MG	#6H6GT	25A6MG	25A6GT	68A	38	210	10	482A	Δ71A
1A4	1A4P	6J7MG	#6J7GT	25A7	25A7GT	71	71A	213	80	482B	182B/482B
1A4T	1A4P	6K6MG	6K6GT/G	25A8	25A8GT	71B	71A	216	81	483	183/483
1B4T	1B4/951	6K7MG	#6K7GT	25S	1B5/25S	80M	83V	216B	81	585	50
1B5	1B5/25S	6L7MG	6L7 or #6L7G	25Z5MG	25Z6GT/G	81M	81	220	20	586	50
1D5G	1D5GP	6N6MG	6N6G	25Z6MG	25Z6GT/G	G84	2Z2/G84	222	22	P861	84/6Z4
1D5GT	1D5GP	6N7GT/G	6N7 or 6N7G	27HM	Δ56	84	84/6Z4	224	24A	951	1B4/951
1E5G	1E5GP	6P7	#6P7G	KR28	84/6Z4	85S	#85	224A	24A	986	†83
1E5GT	1E5GP	6Q6G	6T7G	35	35/51	87S	#Δ606	226	26	1232	7G7/1232
G2	2S/4S	6T7G/6Q6G	6T7G	35A5LT	35A5	88	83V	227	27		
G2S	2S/4S	6Q7MG	#6Q7GT	35L6G	35L6GT/G	88M	#6K7GT				
RE2	81	6R7MG	#6R7GT	35Z3LT	35Z3	88S	Δ#6D6				
S02	50	6S7Q	6S7QGT/G	35Z5G	35Z5GT/G	95	2A5				

\* Bantam tubes may vary in the type designation for identical tubes. For example, the 6K6GT/G is the same as the 6K6GT or 6K6GT/6K6G. This change in marking was made to indicate the tubes which may be used to replace "G" and metal tubes of the equivalent types under normal circumstances and lessen the number of tube types required for replacement. However, the substitution of a bantam for the other tubes may require an addition or change in the external tube shielding.

† When the filament supply will stand one ampere additional drain.

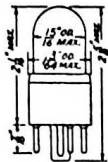
\*\* When both power tubes are changed together.

# Replacement may require the addition of a shield can.

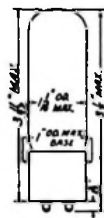
Δ Replacement satisfactory in parallel filament circuits. In series circuits provisions must be made to supply proper filament or heater current.



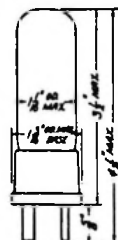
5 1/2 A



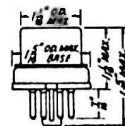
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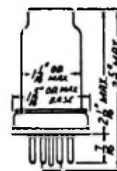
8 A



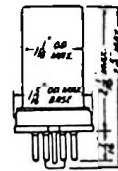
8 B



8 C



8 D



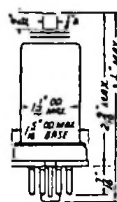
8 E



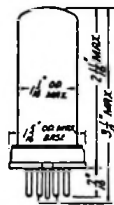
8 F



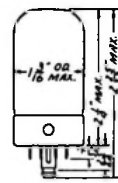
8 G



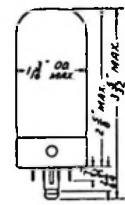
8 GA



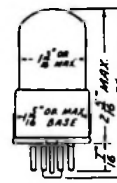
8 H



9 A



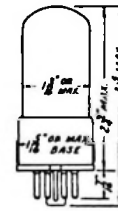
9 B



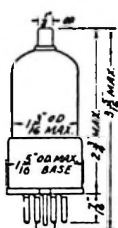
9 C



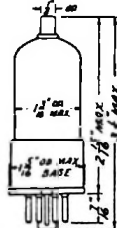
9 D



9 E



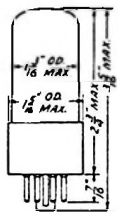
9 F



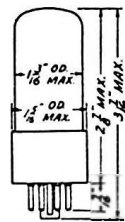
9 G



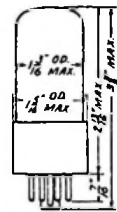
9 GA



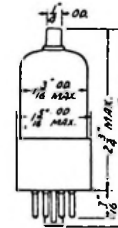
9 H



9 HA



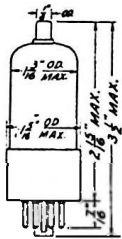
9 HB



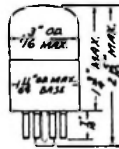
9 J



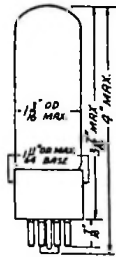
9 K



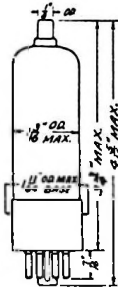
9L



9M



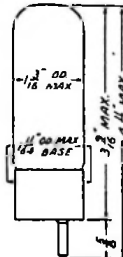
9N



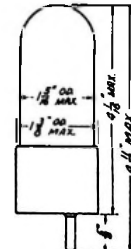
9P



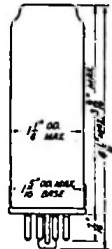
9Q



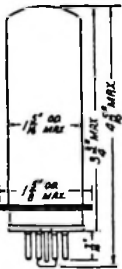
9R



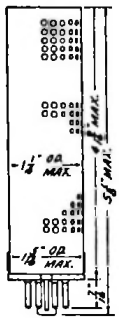
10A



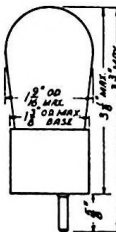
10B



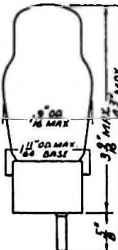
10C



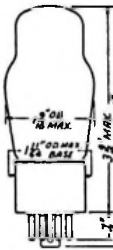
10D



12A



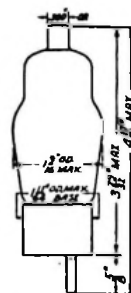
12B



12E



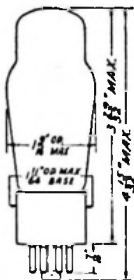
12F



12H



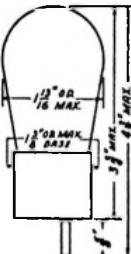
12J



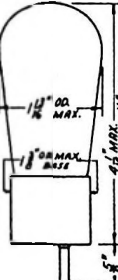
12K



12L



14A



14B



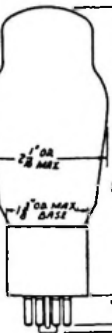
14C



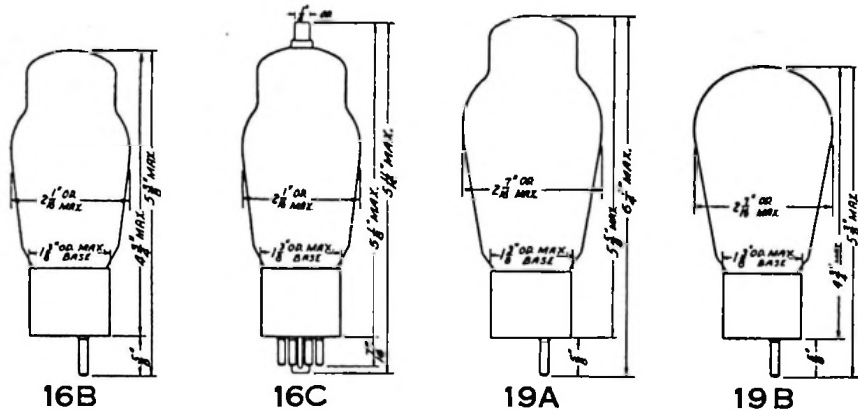
14D



14E



16A



Raytheon, World's Largest Exclusive Manufacturer of Radio Tubes, has for many years been accredited with publishing the most constructive and complete Receiving Tube Data Chart made available to the Radio Trade.

The Sales Promotion Department sincerely believes the user will find this new edition possesses even higher standards than previous issues and is not only helpful but a real necessity to Radio Technicians, Experimenters, and All Others Concerned in the maintenance of Radio Apparatus.

The Sales Promotion Department also hopes the user will be reminded of the uniformly high quality of Raytheon Tubes maintained through the many years, and will favor the Raytheon Tube Distributor in his area when radio tubes are needed. Each Distributor has been selected for ability to serve the Radio Trade with a complete line of all types of Raytheon Tubes and is prepared to meet your most exacting requirements.

The Raytheon Data Chart is only one of the many Service and Sales Helps available to the Trade. For complete information, consult the nearest Raytheon office, or, better still, your nearest Raytheon Distributor.

BASE CONNECTION DIAGRAMS  
(VIEWED FROM BOTTOM OF BASE)  
(RMA NUMBERING SYSTEM)

LIST OF SYMBOLS

A ANODE  
AS STARTER ANODE  
D DIODE PLATE  
DB DIODE PLATE-BOTTOM  
DL DIODE PLATE-LEFT  
DR DIODE PLATE-RIGHT  
DF DIODE PLATE-TOP  
DEF DEFLECTOR PLATES  
CE CONTROL ELECTRODE  
F FILAMENT  
FT FILAMENT TAP  
G GRID  
G1 GRID NO.1  
G2 GRID NO.2  
G3 GRID NO.3  
G4 GRID NO.4  
G5 GRID NO.5  
G6 GRID NO.6  
G7 HEPTODE GRID NO.1  
G8 HEPTODE GRID NO.2  
G9 HEPTODE GRID NO.3  
G10 HEPTODE GRID NO.4  
G11 HEPTODE GRID NO.5  
G12 HEXODE GRID NO.1  
G13 HEXODE GRID NO.2  
G14 HEXODE GRID NO.3  
G15 HEXODE GRID NO.4  
G16 GRID NO.1-LEFT  
G17 PENTODE GRID NO.1  
G18 PENTODE GRID NO.2  
G19 PENTODE GRID NO.3  
G20 GRID NO1-RIGHT  
G21 GRID-INPUT SECT.  
G22 GRID-LEFT  
G23 GRID-RIGHT  
G24 TRIODE GRID  
H HEATER  
HT HEATER TAP  
IS INTERNAL SHIELD  
K CATHODE  
KL DIODE CATHODE  
K1L CATHODE-LEFT  
K2L CATHODE-LEFT  
K1R CATHODE-OUTPUT SECT.  
K2R PENTODE CATHODE  
K3R CATHODE-RIGHT  
K4 TRIODE OR TETRODE CATH.  
NC NO CONNECTION  
P PLATE  
PH HEPTODE PLATE  
PX HEXODE PLATE  
PI PLATE-INPUT SECT.  
PL PLATE-LEFT  
PO PLATE-OUTPUT SECT.  
PP PENTODE PLATE  
PR PLATE-RIGHT  
PT TRIODE OR TETRODE PLATE  
S SHELL  
SH TARGET  
XS EXTERNAL SHIELD

SH DESIGNATION FOR GT TYPES  
INDICATES METAL BASE SHELL.

SUBSCRIPTS R & L INDICATE  
RIGHT & LEFT ELEMENTS WHEN  
LOOKING DOWN ON TOP OF TUBE  
WITH LOCATING LUG OF KEY  
OR FILAMENT PINS AT FRONT.

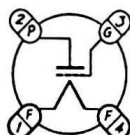
4B



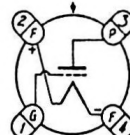
4C



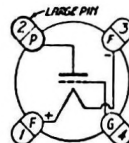
4D



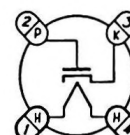
4E



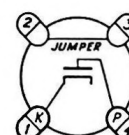
4F



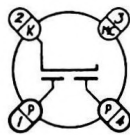
4G



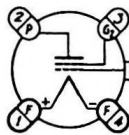
4H



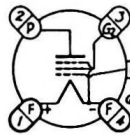
4J



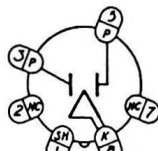
4K



4M

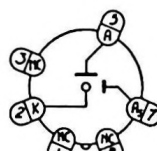


4R

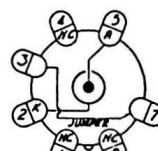


0240 Pin 1-NO  
Pin 2-Omitted

4V



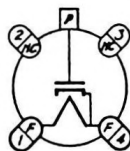
4W



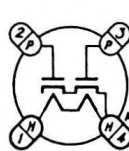
4Z



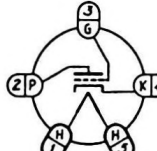
4AB



4AD

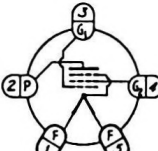


5A

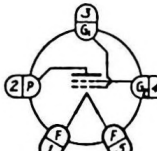


27S } Pin 4-K, XS  
56S }  
56AS }

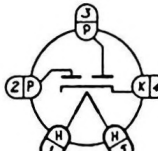
5B



5C

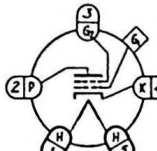


5D



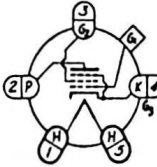
2S/4S Pin 4-K, XS

5E

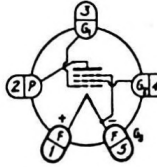


24S } Pin 4-K, XS  
35S/51S }

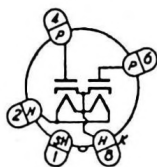
5F



5K

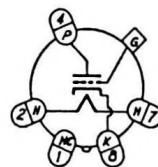


5L



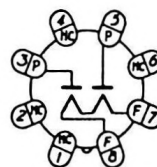
5V40 Pin 1-NC

5M

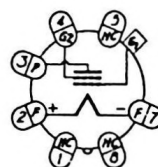


6P5 } Pin 1-SH  
6F50T }  
12F50T }

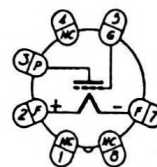
5Q



5R

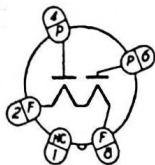


5S



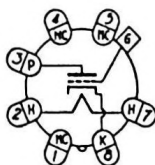
1E40 Pin 1-IS  
2A40 }  
6B40 } Pin 6-NC

5T

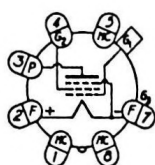


5T4 } Pin 1-SH  
5W4 }  
5U4G Pins 3,5,7-NC

5U

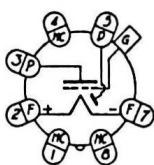


5Y



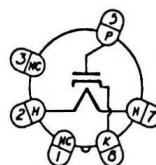
1N50T Pin 1-SH

5Z

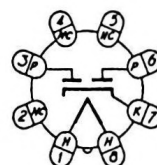


1H50T Pin 1-SH

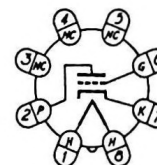
5AA



5AB



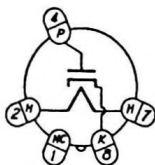
5AC



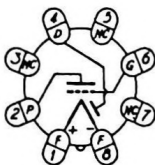
5AD



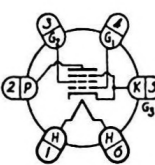
5AF



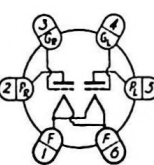
5AG



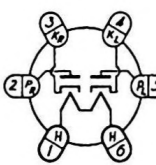
6B



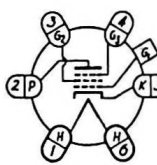
6C



6E

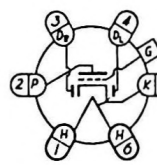


6F



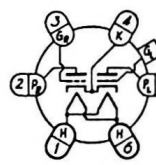
57S }  
57AS } Pin 5-K,XS  
58S }  
58AS }

6G

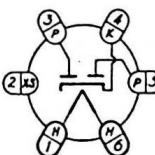


55S } Pin 5-K,XS  
75S }  
85AS Pin 6-H,XS

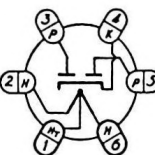
6H



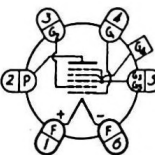
6J



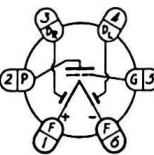
6K



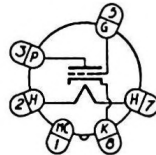
6L



6M

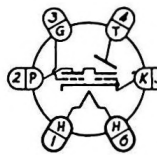


6Q

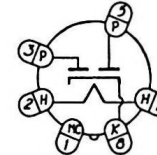


6C5 }  
6J5 } Pin 1-SH  
6J50T }  
12F50T }  
12J50T }  
6C5G } Pin 1-IS

6R

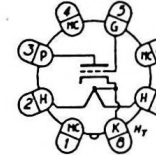


6S



6X5 Pin 1-SH

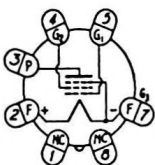
6T



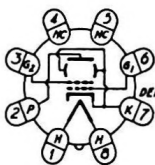
6W



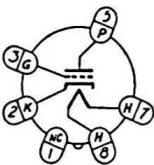
6X



6AA

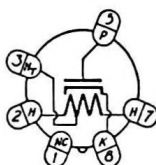


6AB

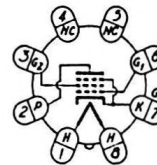


6SP5 Pin 1-SH

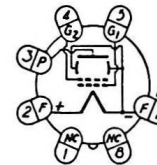
6AD



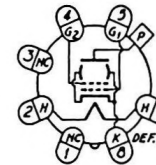
6AE



6AF

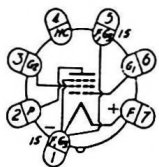


6AM

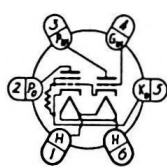




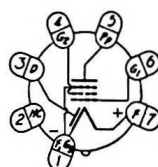
6AR



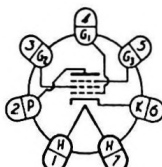
6AS



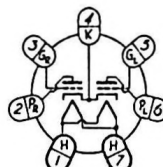
6AU



7A



7B

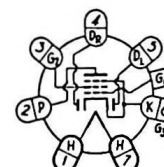


7C



2A7S Pin 6-K, XS  
6A7S

7D



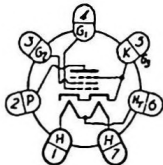
2B7S Pin 6-K, G<sub>3</sub>, XS  
6B7S

7E

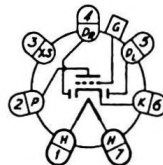


6F7S Pin 6-K, G<sub>3</sub>, XS

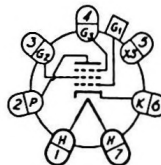
7F



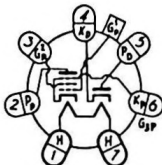
7G



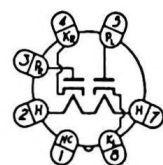
7H



7K



7Q



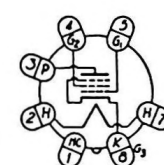
6H6 Pin 1-SH, IS  
6H6G Pin 1-IS  
6H6GT Pin 1-SH, IS  
2526 Pin 1-SH

7R



6J7Q Pin 1-IS  
6K7G  
6S7Q Pin 1-NC  
6U7Q  
6W7Q  
6J7GT Pin 1-SH, IS

7S



6F6  
25A6  
25A60T Pin 1-SH

7T



6L7 Pin 1-SH

7U



7V



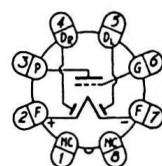
6Q7  
6Q70T  
6R7  
6R70T  
12Q70T Pin 1-SH

7Z

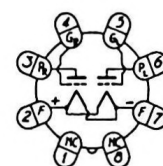


1A70T Pin 1-SH

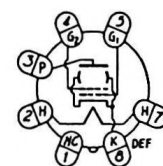
7AA



7AB



7AC

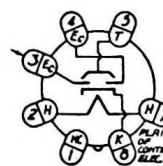


6L6  
6Y6  
25L6 Pin 1-SH

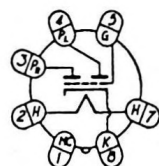
7AD



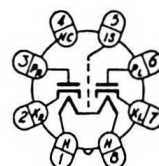
7AG



7AH



7AJ



7AK



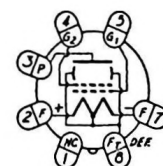
7AM



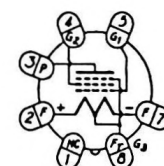
7AO



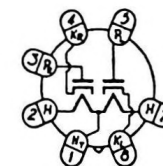
7AP



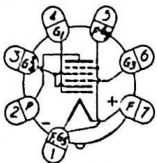
7AQ



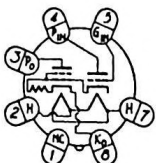
7AR



7AT

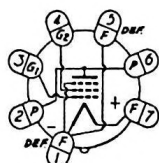


7AU

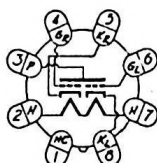


6H6MG Pin 1-SH

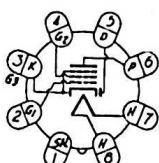
7AV



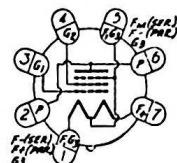
7AX



7AZ



7BA

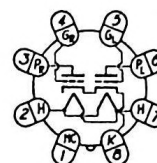


8A



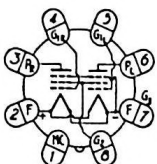
6A8 } Pin 1-SH  
6A8GT }  
12A8GT }

8B

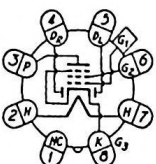


6H7 Pin 1-SH

8C

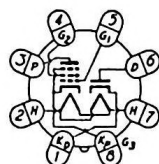


8E



6B8 } Pin 1-SH  
12C8 }

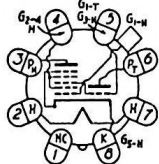
8F



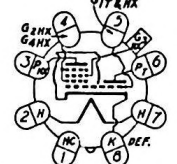
8G



8H

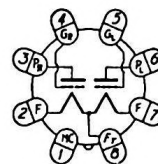


8K

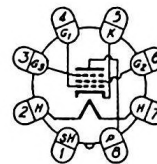


6K0 Pin 1-SH, DEF  
6K8GT Pin 1-SH

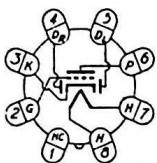
8L



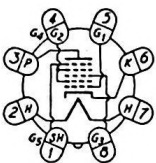
8N



8Q

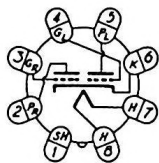


8R



6SQ7 } Pin 1-SH  
12SQ7 }

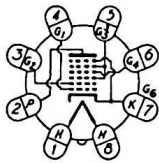
8S



8T



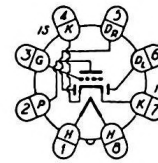
8U



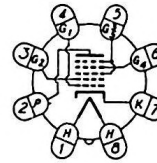
8V



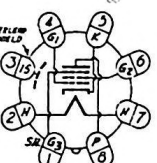
8W



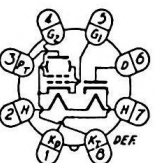
8X



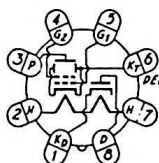
8Y



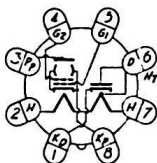
8Z



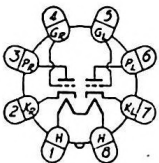
8AA



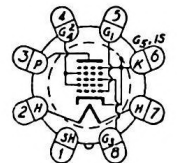
8AB



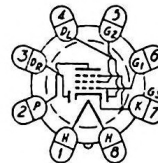
8AC



8AD



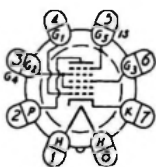
8AE



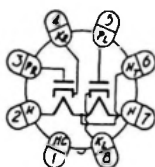
8AJ



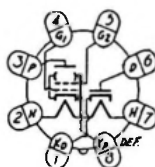
8AL



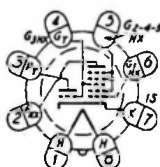
8AN



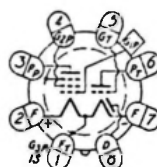
8AO



8AR



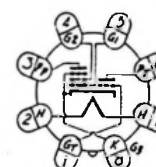
8AS



8AV



8AY



In this new edition of the Raytheon Characteristic Data Chart, there has been included a considerable amount of information not appearing in the preceding editions. A multitude of new tube types have been introduced and these are listed in proper RMA sequence with their essential features and operating characteristics. For each of the active tube types listed there is given complete information on the base connections and in addition the size and type of base. There is also given for each tube type the bulb style and size, and the outline dimensions of the complete tube.

The Interchangeable Tube Section has been made complete to the extent that it includes all obsolete types for which interchangeable types are available.

With these additions, this chart contains a useful and compact summary of the essential information on American receiving tubes. It has been designed for radio servicemen, radio dealers, receiver engineers, and all others who have to do with the application of radio receiving tubes. The number of tube types has become so great that a simple wall chart is no longer practicable. The present booklet form has been chosen as being most convenient for general use. Holes have been provided so that this booklet may be easily mounted on the wall by rings for use as a wall chart or inserted in a loose leaf notebook for bench or desk use.

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