RADIOTRON

RECEIVING VALVE MANUAL

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An AWY Publication

AUSTRALIAN

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GENERAL ELECTR

PROPRIETARY LIMITED

RADIOTRON RECEIVING VALVE MANUAL

RCA RANGE

Туре	Name	Tube Di- men- sions		hode id Rat Valis		Use Yalues to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Volts	Grid Bias ■ Vots	Screen Sup- ply Yelts	Screen Cur- rent Ma	Plate Cur- rent Ma.	AC Plate Resis- tance Okas	Trans- conduc- tance (Grid plate) umbos	Amplifi- cation Factor	Locad for Stated Power Output Obuss	Power Out- put Watts	Туре
00-A	Detector Triode	D12	D.C.	5.0	0.25	Grid-Leak Detector	45		d Return) Filamer		1.5	30000	666	20			00- A
01-A	Detector★ Amplifier	D12	D.C. F	5.0	0.25	Class A Amplifier	90 135	- 4.5 - 9.0			2.5 3.0	11000 10000	725 800	8.0 8.0			01-A
0Y4	Half-Wave Gas Rectifier	B2		Cold		Rectifier		Max. Peak Max. D-C			s, 300	Max Max	Peak Plat D-C Outp	e Current, out Current	500 ma. t, 75 ma.		0Y4
0 Z 4	Full-Wave Gas Rectifier	B2	Cold			Rectifier		Startin	ng-Supply	Voltage	per Pla	ate, 300 m	in. peak	volts. Peal	Plate		0 Z 4
0 Z 4-G	Full-Wave Gas Rectifier	Bla	Cold			Rectifier		D C C	hutput Vo	ltage, 300	max. vo	lts.					0 Z 4-G
1A3	HF Diode	В0	н	1.4	0.15	Detector Rectifier	1	Max. Peak Max. Peak	Inverse V Plate Ma	/olts, 330 i., 5				ut Ma., 0. ter-Cathod		140	1A3
1A4-P	Remote-Cutoff Pentode	D9	D.C.	2.0	0.06	Amplifier			F	or other cl	haracteri	stics, refer	to Type 11	05-GP.			1A4-P
1A5-GT	Power Amplifier Pentode	C3	D.C.	1.4	0.05	Class A Amplifier	85 90	- 4.5 - 4.5	85 90	0.7	3.5 4.0	300000	800 850		25000 25000	0.100 0.115	1A5-GT
1A6	Pentagrid Converter 5	D9	D.C.	2.0	0.06	Converter	135 180	{- 3.0} min.}	67.5 67.5	2.5 2.4	1.2	400000 500000	2.3 ma. O Conversion	scillator-Gr n Transcor	id (#1) id., 300	nax. volts, Resistor a. micromhos.	1A6
1A7-GT	Pentagrid Converter o	C3	D.C.	1.4	0.05	Converter	90	0	45♣	0.7	0.6	600000	Oscillator- Conversion	Grid (#1)	Resisto id., 250	lts, 1.2 ma. r, 0.2 meg. micromhos.	1A7-GT
1AC5	Power Pentode	A	F	1.25	0.04	Class A Amplifier	30 45 67.5	- 2 - 3 - 4.5	30 45 67.5	0.1 0.2 0.4	0.5 1.0 2.0	200000 170000 150000	450 600 750		50000 40000 25000	5 15 50	1AC5
1AD5	Sharp-Cutoff Pentode	A	F	1.25	0.04	Class A Amplifier	30 45 67.5	0 0 0	30 45 67.5	0.16 0.35 0.75	0.45 0.9 1.85	700000 700000 700000	430 580 735				1AD5
1B3-GT	Half-Wave Rectifier	D2	F	1.25	0.2	Half-Wave Rectifier		. Peak Inv . Peak Pla			0000	Max. A Max. I	verage Pla	ate Ma., 2 of Supply V	/oltage, :	300 Kc	1B3-GT
184-P	RF Amplifier Pentode	D9	D.C.	2.0	0.06	Amplifier			F	or other cl	naracteri	stics, refer	to Type 1E	5-GP.		:	1B4-P
1B5/25S	Duplex-Diode Triode	D5	D.C.	2.0	0.06	Triode Unit as Amplifier			F	or other cl	haracteri	stics, refer	to Type 1F	16-G.			1B5/25S
1B7-GT	Pentagrid Converter	C3	D.C. F	1.4	0.10	Converter	90	0	45♣	1.3	1.5	350000	Oscillator-	Grid (#1)	Resisto d., 350	lts, 1.6 ma. r, 0.2 meg. micromhos.	1B7-GT
1C5-GT	Power Amplifier Pentode	C2b	D.C.	1.4	0.10	Class A Amplifier	83 90	- 7.0 - 7.5	83 90	1.6	7.0	110000 115000	1500 1550		9000 8000	0.20 0.24	1C5-GT
1C6	Pentagrid Converter p	D9	D.C.	2.0	0.12	Converter			F	or other cl	naracteri	stics, refer			4		1C6
1C7-G	Pentagrid Converter o	D8	D.C.	2.0	0.12	Converter	135 180	- 3.0 - 3.0	67.5 67.5	2.5	1.3	600000 700000	4.0 ma. On Conversion	d (#2): scillator-Gr n Transcon	id (#1)	nax. volts, Resistor • . micromhos.	1C7-G
1D5-GP	Remote-Cutoff Pentode	D8	D.C.	2.0	0.06	Class A Amplifier	90 180	{- 3.0} min.}	67.5 67.5	0.9	2.2	600000 1.0§	720 750				105-GP
1D5-GT	Remote-Cutoff Tetrode	D8	D.C.	2.0	0.06	Class A Amplifier	180	- 3.0	67.5	0.7	2.2	600000	650				1D5-GT
1D7-G	Pentagrid Converter a	D8	D.C. F	2.0	0.06	Converter			Fo	or other ch	naracteri	stics, refer		.6.			1D7-G
1D8-GT	Diode-Triode- Power Amplifier Pentode	C2b	D.C.	1.4	0.10	Pentode Unit as Class A Amplifier Triode Unit as Class A Amplifier	45 90 45 90	- 4.5 - 9.0 0	45 90	0.3	1.6 5.0 0.3 1.1	300000 200000 77000 43500	650 925 325 575	25 25	20000 12000	0.035	1D8-GT

- Four vertical rules before or after type No. = Subminature type.

 Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

 Two vertical rules before or after type No. = Metal type.

 One vertical rule before or after type No. = GT or other larger glass type.

 Light Face = Discontinued type.

 For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.

 ★ For Grid-leak Detection—plate volts 45, grid return to + filament or to cathode.

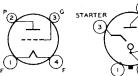
 Grids #3 and #5 are screen. Grid No. 4 is signalinput grid.

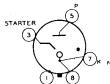
- † Power output is for two tubes at stated plate-to-plate load.

 A Grids \$2 and \$4 are screen. Grid \$3 is signal-input control grid.
- A For two tubes.
- a 50000 ohms.
- Megohms.
- Obtained preferably by using 70000-ohm voltage-dropping resistor in series with 90-volt supply.
 For grid of following tube.

- Applied through plate resistor of 250000 ohms.

 Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.







00-A 01-A

0Y4

0Z4



0Z4-G



1A3



1A4-P 184-P



1A5-GT 1C5-GT



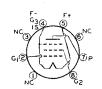
1A6 1C6



1A7-GT 1B7-GT



1AC5



1AD5



183-G1



1B5/25S



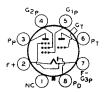
107-G 107-G



105-GT



1D5-GP

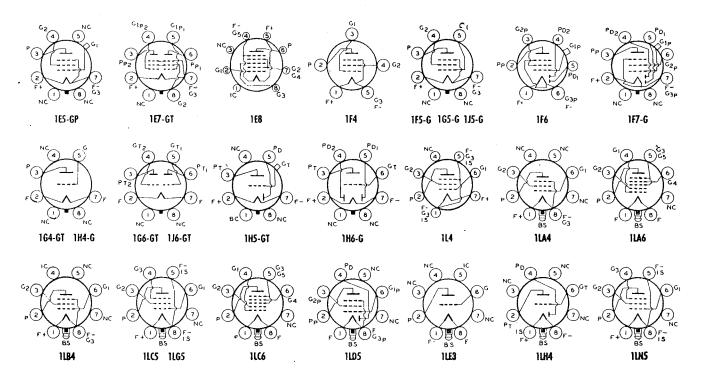


108-GT

1E5-GP to 1LN5

Туре	Name	Tube Di- men- sions	ar	hode 1 nd Rati	ing	Use Yalues to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply	Grid Bias #	Screen Sup- ply	Screen Cur- rent	Plate Cur- rent	AC Plate Resis- tance	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Power Output	Power Out- put	Туре
	RF Amplifier		C. T. D.C.	Voits	Amp.	OL 1 1 110	Voits 90	- 3.0	Velts 67.5	Ma. 0.7	Ma. 1.6	Ohms 1.0§	שנת 600		Obens	Watts	4== 0=
1E5-GP	Pentode Twin-Pentode	D8	F D.C.	2.0	0.06	Class A Amplifier	180	- 3.0	67.5	0.6	1.7	1.3 Output is	650	he of			1E5-GP
1E7-GT	Power Amplifier	C2b	F.	2.0	0.24	Class A Amplifier	135	- 7.5	135		8	tated plate			24000	0.575	1E7-GT
1E8	Pentagrid Converter	A	F	1.25	0.04	Converter	30 45 67.5	0 0 0	30 45 67.5	0.8 1.1 1.5	0.3 0.6 1.0	300000 400000 400000		r Grid (#1 on Transco			1E8
1F4	Power Amplifier Pentode	D12	D.C. F	2.0	0.12	Amplifier			For	other ch	aracteria	tics, refer t	o Type 1F	5-G.			1F4
1F5-G	Power Amplifier Pentode	D10	D.C.	2.0	0.12	Class A Amplifier	90 135	- 3.0 - 4.5	90 135	1.1	4.0 8.0	240000 200000	1400 1700		20000 16000	0.11	1F5-G
1F6	Duplex-Diode Pentode	D9	D.C.	2.0	0.06	Pentode Unit as Amplifier			Fo	other ch	aracteris	stics, refer t	o Type 1F	7-G.	L		1F6
						Pentode Unit as	180	- 1.5	67.5	0.7	2.2	1.05	650			Ī	
1F7-G	Duplex-Diode Pentode	D8	D.C.	2.0	0.06	Pentode Unit as	135 ×	- 2.0				volts appl				or.	1F7-G
1G4-GT	Medium-Mu	C4	D.C.	1.4	0.05	AF Amplifier Class A Amplifier	90	- 6.0		Gr	2.3	tor,** 1.0 r	negohm. V 825	oltage Gai	n, 46.	Г	1G4-GT
1G5-G	Triode Power Amplifier	D10	D.C.				90	- 6.0	90	2.5	8.5	133000	1500		8500	0.25	1G5-G
	Pentode Twin-Triode		F D.C.	2.0	0.12	Class A Amplifier	135	-13.5	135	2.5	8.7	160000 er Output i	1550	ube at	9000	0.55	
1G6-GT	Amplifier	C4	F	1.4	0.10	Class B Amplifier	90	0 - 4.5	<u> </u>		2.5	tated plate-	to-plate lo 850	ad.	12000	0.350	1G6-GT
1H4-G	Detector★ Amplifier	D3	D.C.	2.0	0.06	Class A Amplifier	135 180	- 9.0 -13.5			3.0 3.1	10300 10300	900 900	9.3 9.3 9.3	8000	2.1†	1H4-G
1H5-GT	Diode	C3	D.C.	1.4	0.05	Class B Amplifier Triode Unit as	157.5 90	-15.0 0			0.15	240000	275	65	8000	2.11	1H5-GT
	High-Mu Triode Duplex-Diode	D3	D.C.	2.0	0.06	Class A Amplifier Triode Unit as	135	- 3.0	 		0.8	35000	575	20		 	1H6-G
1H6-G	Triode Power					Class A Amplifier			 		 			20		0.44	
1J5-G	Pentode Twin-Triode	D10	D.C. F	2.0	0.12	Class A Amplifier	135 135	-16.5 0	135	2.0	7.0	105000 wer Output	950	tube at	13500	0.45	1J5-G
1J6-GT	Amplifier	C10	D.C. F	2.0	0.24	Class B Amplifier	135	- 3.0	67.5	1.2		tated plate			10000	2.0,	1J6-GT
1L4	RF Amplifier Pentode	B 0	D.C. F	1.4	0.05	Class A Amplifier	90	ő	90	2.0	4.5	260000	1025			L==	11.4
1LA4	Power Amplifier Pentode	B5	D.C.	1.4	0.05	Amplifier			F	or other c	haracter	istics, refer	• • •				1LA4
1LA6	Pentagrid Converter	B5	D.C. F	1.4	. 0.05	Converter	90	0	45♣	0.6	0.55	750000	Oscillato	r Grid (#	1) Resisto	olts, 1.2 ma. or, 0.2 meg. micromhos.	1LA6
1LB4	Power Amplifier Pentode	B5	D.C. F	1.4	0.05	Class A Amplifier		1	for other o	haracteri	stics, ref	er to Pento	de Unit of	Type 1D8	-GT.		1LB4
1LC5	RF Amplifier Pentode	B5	D.C.	1.4	0.05	Class A Amplifier	45 90	0	45 45	0.35	1.10		750 775				1LC5
1LC6	Pentagrid Converter	85	D.C.	1.4	0.05	Converter	45 90	0	35 35	0.75 0.70	0.70	300000	Anode-G Oscillato) Resistor	lts, 1.4 ma. r, 1.0 meg. micromhos.	1LC6
1LD5	Diode-Pentode	85	D.C.	1.4	0.05	Pentode Unit as Class A Amplifier	5.6 meg	ipply, 90 resistor	volts appl . Grid Bir	ied throu as, 0 vol	ts, Grid	g. resistor. Resistor,	Screen Su 10 megohn	ipply, 90 v ns. Voltag	rolts appli	ed through	1LD5
1LE3	Medium-Mu Triode	85	F	1.4	0.05	Class A Amplifier	90 90	- 3			1.4	11200 19000	1300 760	14.5 14.5			1LE3
1LG5	Remote-Cutoff Pentode	B5	F	1.4	0.05	Class A Amplifier	90 90	- 0 1.5	45 90	0.4	3.7	1.0§ 500000	800 1150				1LG5
1LH4	Diode High-Mu Triode	B5	D.G.	1.4	0.05	Triode Unit as Class A Amplifier		1			<u> </u>	istics, refer	.1	H5-GT.	•		1LH4
1LN5	RF Amplifier	B5	D.C.	1.4	0.05	Class A Amplifier	90	0	90	0.35	1.6	1.15	800	T			1LN5
	Pentode	1	1 -							1		<u> </u>	ļ		٠	<u> </u>	<u> </u>

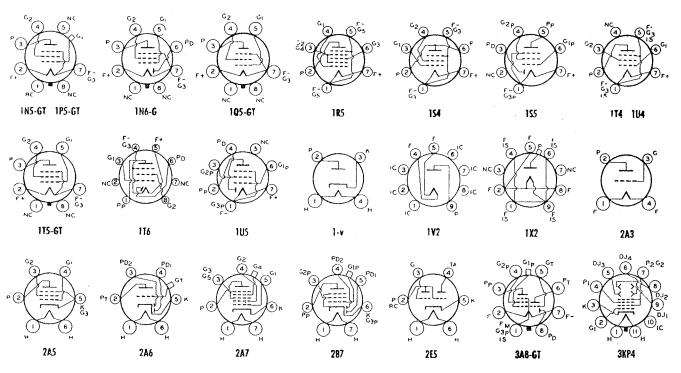
For footnotes, see preceding page



1N5-GT to 3KP4

Туре	Name	Tube Di- men- sions	ar	hode nd Rat	ing	Use Yalves to right give operating conditions and therecteristics for indicated typical use	Plate Sup- ply	Grid Bias =	Screen Sup- ply	Screen Cur- rent	Plate Cur- rent	AC Plate Resis- tance	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Pewer Output	Power Out- put	Туре
1N5-GT	RF_Amplifier	C3	C. T. D.C. F	Volts 1.4	Amp. 0.05		Veits	Vetts	Velts	Ma	Ma	Ohous	p erios		Olems	Watts	405.00
1N6-G	Pentode Diode—Power					Class A Amplifier Pentode Unit as	90	0	90	0.3	1.2	1.5	750				1N5-GT
 	Amplifier Pentode Remote-Cutoff	DI	D.C.	1.4	0.05	Class A Amplifier	90	- 4.5	90	.0.7	3.4	300000	800		25000	0.1	1N6-G
1P5-GT	Pentode Beam	C3	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.7	2.3	800000	750				1P5-GT
1Q5-GT	Power Amplifier	C3	D.C. F	1.4	0.1	Class A Amplifier	90	- 4.5	90	1.3	9.5	90000	2200		8000	0.27	1Q5-GT
1R5	Pentagrid Converter ∆	B0	D.C. F	1.4	0.05	Converter	45 90	0	45 67.5	1.9	0.7 1.6	600000 600000	Grid #1 F	Resistor, 10 n Transcor	0000 ohm	18.	1R5
154	Power Amplifier Pentode	80	D.C. F	1.4	0.1	Class A Amplifier	45 90	- 4.5 - 7.0	45 67.5	0.8	3.8	100000	1250		8000	0.065	154
155	Diode-Pentode	B0	D.C. F	1.4	0.05	Pentode Unit as AF Amplifier	Plate Su	poly. Q0 v	tolta ennli	ed through	h 1	resistor. S		ply, 90 vo	8000 Its applie	0.27 d through	155
174	Super-Control RF Amplifier Pentode	R0	D.C. F	1.4	0.05	Class A Amplifier	45 90	0	45 67.5	0.7	1.7	350000 500000	700 900	age Gain,	50 approx	·.	1T4
1T5-GT	Beam Power Amplifier	C4	D.C. F	1.4	0.05	Class A Amplifier	90	- 6.0	90	0.8	6.5		1150		14000	0.17	1T5-GT
176	Diode- Pentode	A	F	1.25	0.04	Pentode Unit as Class A Amplifier	30 45 67.5	0	30 45 67.5	0.10 0.21 0.4	0.33 0.75 1.6	500000 500000 400000	330 475			U.17	1T6
1U4	RF Amplifier Pentode	BO	D.C.	1.4	0.05	Clase A Amplifier	90	0	90	0.50	1.0	1.05	600 900				. 104
1U5	Diode-Pentode	80	D.C.	1.4	0.05	Pentode Unit as Class A Amplifier	Plate Sup	ply, 90 v	olts applie	ed throug	h 1 meg	. resistor. S Resistor, 1	creen Sup	ply, 90 vo	lts applie	d through	1U5
1-v	Half-Wave Rectifier	D6	н	6.3	0.3	WILL Capacitive-	Max. A.C Max. D.C	. Plate vo	EMM) 87K), 325 B	Ain. Tot	al Effective	Plate-Su	poly Imp	dance: I	In to 117	1-v
1V2	Half-Wave Rectifier	B0a	F	0.625	0.3	Pulsed Rectifier	Max	Peak Inv	verse Plate	: Volts, 75	500	hms; at 150 Max.	Average P		325 volts,	75 ohms.	1V2
1X2	Half-Wave Rectifier	B4	F	1.25	0.2	Half-Wave Rectifier	Max	Peak Inv	verse Plate	Volta, 15	000			late Ma., I			1X2
2A3	Power Amplifier Triode	E3	F	2.5	2.5	Class A Amplifier Push-Pull Class AB, Amplifier	250 300 300	-45.0 Cath. B	ias, 780 of	ıms 🏟	60.0 80.0 80.0	800	5250 ——	of Supply	2500 5000 3000	3.5 10.0† 15.6†	2A3
2A4-G	Glow-Discharge Triode	D3	D.C.	2.5	2.5	Relay Service	Max	Peak Inv	rerse Anod	le Volts, 2	00	Max.	Peak Anod	le Current, Current, 0	1.25 am	pere	2A4-G
2A5	Power Amplifier Pentode	D12	н	2.5	1.75	Amplifier						tics, refer to			. I amper	<u>-</u>	2A5
2A6	Duplex-Diode High-Mu Triode	D9	н	2.5	0.8	Triode Unit as Amplifier			For	other ch	aracteris	tics, refer to	Type 6SQ	Q7.			2A6
2A7	Pentagrid Converter p	D9	н	2.5	0.8	Converter			For	other ch	aracteris	tics, refer to	Type 6A	8.			2A7
287	Duplex-Diode Pentode	D9	н	2.5	0.8	Pentode Unit as			For	other ch	aracteris	tics, refer to	Type 6Bi	B-G.			2B7
2 E 5	Electron-Ray Tube	D5	н	2.5	0.8	Visual Indicator			For	other ch	aracteria	tica, refer to	Type 6E:	5.		~~~~	2E5
3A8-GT	Diode-Triode RF Amplifier Pentode	C8	D.C.	1.4	0.1	Triode Unit as Class A Amplifier Pentode Unit as	90	0	90	0.5	0.2	200000	325 750	65			3A8-GT
3KP4	Directly Viewed Kinescope	G1a	н	6.3	0.6	Class A Amplifier Picture Reproduction	Focus: Deflect Phosph Picture Deflect	Electrosta on: Electrosta or: No. 4 Size: 11/8 on Factor	ntic rostatic	d DJ; (ne	Anode I Anode I Anode I Grid No	No. 2 and C No. 1 Volts No. 1 Curre o. 1 Volts fo en), 100 to	frid No. 2 for Focus, nt Range, or Visual C	, 320 to 600 15 to +- Cutoff 31	0 (1000 m 10 micros 8 to 90	amperes	3KP4

For footnotes, see following page



Туре	Name	Tube Di- men- sions	6, T.	thode nd Ra Vets	ting Aug.	Use Values to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Yets	Grid Bias #	Screen Sup- ply Yets	Screen Cur- rent Ma	Plate Cur- rent M1	AC Plate Resis- tance Ohms	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Power Output Olims	Power Out- put Watts	Туре
3LF4	Beam Power Amplifier	B5	D.C. F	1.4	0.1 0.05	Class A Amplifier			For	other ch	aracteris	ics, refer to	Type 3Q:	5-GT.			3LF4
3Q4	Power Amplifier Pentode	80	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier			F	or other	character	istics, refer	to Type 3	V4			3Q4
3Q5-GT	Beam Power Amplifier	C3	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	110 110	- 6.6 - 6.6	110 110	1.4	10.0 × 8.5	100000 110000	2200 2000		8000 8000	0.40	3Q5-GT
354	Power Amplifier Pentode	B0	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	90 90	- 7 - 7	67.5 67.5	1.4	7.4 6.1	100000 100000	1575 1425		8000 8000	0.27 0.235	354
3V4	Power Amplifier Pentode	80	O.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	90 90	- 4.5 - 4.5	90 90	2.1 1.7	9.5 7.7	100000 120000	2150 2000		10000 10000	0.27 0.24	3V4
5AZ4	Full-Wave Rectifier	C2a	F	5.0	2.0				For rat	ings and	characte	ristics, refe	r to Type	5Y3-GT.	•		5AZ4
5 T 4	Full-Wave Rectifier	D7	F	5.0	2.0	With Capacitive- Input Filter With Inductive- Input Filter	Max. Pea Max. A-C	k Inverse	Volts, 15 Plate (R)	50 MS), 550	Max. P	-C Output eak Plate M -C Output eak Plate M	Ia., 675 Ma., 225	Imped. p Min. Vah	tal Effect. er Plate, l le of Inpu 3 henries	150 ohms at Choke,	5T4
5TP4	Projection Kinescope	ні	н	6.3	0.6	Picture Reproduction With Reflective Optical System	Deflection Deflection Phosphor	ectrostation: Magnet n: Magnet n Angle: 5 : No. 4 ize: 18 x	ic And 0° 43 Grid Grid	de-No. 1 300 to 544 I-No. 2 V I-No. 1 V	Volts for 00 (6000 olts, 200	max.) (350 max.) ∕isual Cuto	10 An 75 ff, Gr	node-No. 2 0 to 200 m node-No. 1 microamp rid-No. 2 C 15 to +15	icroamper Current, eres (max urrent Re	res .) ange,	5TP4
5U4-G	Full-Wave Rectifier	E2	F	5.0	3.0	With Capacitive- Input Filter With Inductive- Input Filter	Max. Pea Max. A-C Max. Pea	k Inverse Volts per k Inverse	Volts, 15: Plate (RI Volts, 15:	50 MS), 550 50	Max. P Max. D Max. P	-C Output eak Plate N -C Output eak Plate N	1a., 675 Ma., 225 1a., 675		r Plate, 7 ie of Inpu 3 henries	5 ohms it Choke,	5U4-G
5V4-G	Full-Wave Rectifier	D 10	н	5.0	2.0	With Capacitive- Input Filter With Inductive- Input Filter	Max. Pea	k Inverse	Volts, 14	00 MS), 500	Max. P	-C Output eak Plate M -C Output eak Plate M	Ia., 525 Ma., 175	Min. Tota Imped. po Min. Valu	er Plate, 1	100 ohms	5V4-G
5W4 5W4-GT	Full-Wave Rectifiers	C2 C5	F	5.0	1.5	With Capacitive- Input Filter With Inductive- Input Filter	Max. Pea Max. A-C	k Inverse	Volts, 14 Plate (R	00 MS), 500	Max. D	-C Output eak Plate M -C Output eak Plate M	Ma., 300 Ma., 100	Min. Val	er Plate,	50 ohms at Choke,	5W4 5W4-GT
5X4-G	Full-Wave Rectifier	E2	F	5.0	3.0				Fo	or other r	atings, re	fer to Type	5U4-G.				5X4-G
5Y3-G 5Y3-GT	Full-Wave Rectifiers	C5	F	5.0 5.0	2.0	With Capacitive- Input Filter With Inductive- Input Filter	Max. Per	ak Inverse	Volts, 14 Plate (R	00 MS), 500	Max. I Max. I	O-C Output Peak Plate I O-C Output Peak Plate I	Ma., 400 Ma., 125	Imped. Min. Val		50 ohms ut Choke,	5Y3-G 5Y3-GT
5Y4-G	Full-Wave Rectifier	D10	F	5.0	2.0				F	or other r	atings, re	fer to Typ	5 Y3-GT .				5Y4-G
5 Z 3	Full-Wave Rectifier	E3	F	5.0	3.0				F	or other r	atings, re	fer to Type	5U4-G.				5 Z 3
5 Z 4	Full-Wave Rectifier	C2	н	5.0	2.0	With Capacitive- Input Filter With Inductive- Input Filter	Max. Per	C Volts pe ak Inverse C Volts pe ak Inverse	Volts, 14 r Plate (R	00 MS), 500	Max. I	O-C Output Peak Plate I O-C Output Peak Plate I	Ma., 375 Ma., 125	Imped.		t Choke,	5 Z 4
6A3	Power Amplifier Triode	E3	F	6.3	1.0	Amplifier					haracteri	stics, refer	to Type 6I	B4-G.			6A3
6A4/LA	Power Amplifier Pentode	D12	F	6.3	0.3	Class A Amplifier	100 180	- 6.5 -12.0	100 180	1.6 3.9	9.0 22.0	83250 45500	1200 2200		11000 8000	0.31 1.40	6A4/LA
6A6	Twin-Triode Amplifier	D12	н	6.3	0.8	Amplifier			F	or other c	haracter	stics, refer	to Type 6	N7-GT.			6A6
6A7	Pentagrid Converter n	D9	Н	6.3	0.3	Converter			F	or other c	haracter	stics, refer	to Type 6	A8.			6A7
6A7S	Pentagrid Converter o	D9	н	6.3	0.3	Converter			F	or other c	haracter	stics, refer	to Type 6.	A8.			6A7S
6A8 6A8-G 6A8-GT	Pentagrid Converters c	C1 D& C3	н	6.3	0.3	Converter	100 250	- 1.5 - 3.0	50 100	1.3	1.1 3.5	600000 360000	4.0 ma. C	Deciliator-G	rid (#1)	nax. volts, Resistor = . micrombos.	6A8 6A8-G 6A8-GT

Four vertical rules before or after type No. = Sub-

without without miss before or after type No. = Miniature type, More wertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.

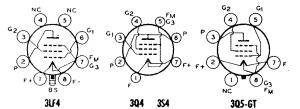
G Grids #3 and #5 are screen. Grid No. 4 is signalinput grid.

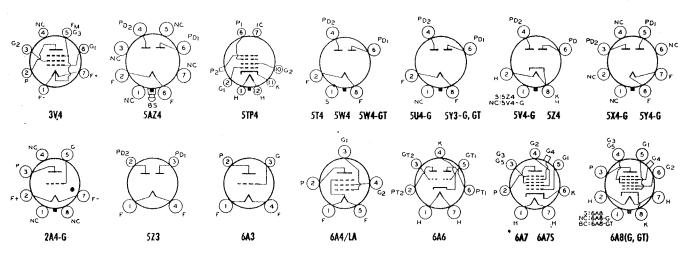
- † Power output is for two tubes at stated plate-to-plate load.

▲ Grids #2 and #4 are screen. Grid #3 is signal-input control grid.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.

- For two tubes.
- For two tubes.
 Supply voltage applied through 20000-ohm voltage-dropping resistor.
 Soudo ohms.
- § Megohms.
- Either ac or de may be used on filament or heater, except as specifically noted. For use of de on ac filament types, decrease stated grid volts by ⅓ (approx.) of filament voltage.





6AB4 to 6AL7-GT

Туре	Name	Tube Di- men- sions	a	thode 1 nd Rati	ng	Use Yalves to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply	Grid Bias ta	Screen Sup- ply	Screen Cur- rent	Plate Cur- rent	AC Plate Resis- tance	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Power Dutput	Power Out- put	Туре
п	RF Amplifier		C. T.	Volts	Амя.	The state of the s	Yelts 100	Velts	Veits	Ma	Ma	Ohms	p mbos		Ohms	Watts	ļ
6AB4	Triode	B0	н	6.3	0.15	Class A Amplifier	250	- 1 - 2			3.7		4000 5500	54 55			6AB4
6AB5/ 6N5	Electron-Ray Tube	D4	н	6.3	0.15	Visual Indicator	Plate &	rarget Sup	volts; Sh ply = 13	adow Ang 5 volts, Tr	le, 0°. E	e Resistor = lias, 0 volts te Resistor ias, 0 volts	: Angle, 90	0°; Plate (. Target C	Current, C Current =	1.9 ma.	6AB5/ 6N5
6AB7	Remote-Cutoff Pentode	B2 ·	h	6.3	0.45	Class A Amplifier	300	- 3.0	200	3.2	12.5	700000	5000			T	6AB7
6AC5-GT	High-Mu Power Amplifier Triode	СЗ	н	6.3	0.4	Class B Amplifier Dynamic-Coupled Amplifier With 76 Driver	250 250	Average	: Plate Ci	arrent of I	Driver =	leveloped in 5.5 millian = 32 milli	nneres.	circuit.	7000	8.0† 3.7	6AC5-GT
6AC7	Sharp-Cutoff Pentode	B2	н	6.3	0.45	Class A Amplifier	300	Cath, Bias	150	2.5	10.0	1.0§	9000	Catho	de-Bias R 160 ohms		6AC7
6AD6-G	Electron-Ray Tube Twin Indicator Type	B5a	н	6.3	0.15	Visual Indicator	Target V	oltage, 100 .8 ma. Cor oltage, 150	trol-Elec	trode Voit	age, 45 ctrode V	l oltage, — 23 volts; Angle oltage, — 50 volts; Angle	, 0°; Targe	et Current	le, 135°; 7 , 1.5 ma. le. 135°; 7	farget Cur	SADEC
						Triode Unit as Class A Amplifier	250	-25.0	I		3.7	19000	325	6	Ī		
6AD7-G	Triode-Power Amplifier	D10	н	6.3	0.85	Pentode Unit as Class A Amplifier	250	-16.5	250	6.5	34.0	80000	2500		7000	3.2	6AD7-G
	Pentode					Pentode Unit With 6F6-G as Push-Pull Class AB ₁ Amplifier	375	Cath. Bias	250	6.7 4	41.04		e-Bias Re: 70 ohms ∳		16000	9.01	
6AE5-GT	Amplifier Triode	C3	#	6.3	0.3	Class A Amplifier	95	-15.0			7.0	3500	1200	4.2			6AE5-GT
6AE6-G	Twin-Plate Control Tube	D3	Н	6.3	0.15	Remote Cutoff Triode Remote Cutoff	250 250 250	- 1.5 -35.0 - 1.5			6.5 0.01 4.5	25000 35000	950	25 33			6AE6-G
6AE7-GT	Twin-Input Triode Amplifier	C3	н	6.3	0.5	Triode Class A Amp. AA Driver For Push- Pull 6AC5-GT In Dynamic-Coupled Amplifier	250 250 250	Zero-Signa Zero-Signa	i Plate C i Plate C	urrent of ourrent of	6AE7-G	4650 I developed I = 10 mill I = 64 mill stated plat	iamperes.	•	10000	9.5	6AE7-GT
6AF6-G	Electron-Ray Tube Twin Indicator Type	80c	н	6.3	0.15	Visual Indicator	Target V 0.65 ma Target V	oltage, 12: Control-E	5 volts. C Electrode 0 volts. C	ontrol-Ele Voltage, 8 ontrol-Ele	ectrode \ 10 volts; ectrode \	Voltage, 0 vo Angle, 0°. Voltage, 0 vo	olts; Shado	w Angle,	_		6AF6-G
6AG5	Sharp-Cutoff Pentode	BO	н	6.3	0.3	As Pentode Class A Amplifier As Triodel Class A Amplifier	100 250 180 250	Cath. Bias Cath. Bias	100 150	1.5 2.0	4.5 7.0 7.0 5.5	700000 800000 7900 11000	4250 5000 5700 3800	Cath. B Cath. B	ias Res., ias Res., ias Res., ias Res., i	200 ohms 350 ohms	6AG5
6AG7	Video Power Amplifier Pentode	C2	н	6.3	0.65	Class A Amplifier	300	Cath. Bias - 2.0	125	7.0	28.0	Load F	e-Bias Res lesistance, -Peak Vol	3500 ohm:	\$.	rox.	6AG7
6АН6	Sharp-Cutoff Pentode	BO	Н	6.3	0.45	Class A Amplifier	300	Cath. Bias	150	2.5	10.0	500000	9000		Res., 160		6AH6
6AK5	Sharp-Cutoff Pentode	A1	н	6.3	0.175	Class A Amplifier	120 180	Cath. Bias	120 120	2.5	7.5 7.7	340000 690000	5000 5100	Cath.	Res., 200	ohms	6AK5
6AK6	Power Amplifier Pentode	B0	н	6.3	0.15	Class A Amplifier	180	- 9.0	180	2.5	15	200000	2300		10000	1.1	6AK6
6AL5	Twin Diode	A1	н	6.3	0.3	Detector Rectifier		x. Peak In			54		D-C Out Peak Hea				6AL5
SAL7-GT	Electron-Ray Tube Indicator Type	C0a	н	6.3	0.15	Visual Indicator	Grid V	Voltage, 3 oltage = 0 de Bias Re	0 volts	hms appro	D ₁	id Voltage effecting Ele Voltage =	for Pattern	Cutoff, -	- 7 volts a	approx.	6AL7-GT

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.

- Grids #3 and #5 are screen. Grid No. 4 is signal-input grid.
 Power output is for two tubes at stated plate-to-plate load.

▲ Grids #2 and #4 are screen. Grid #3 is signal-input control grid.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.

- Grid #2 tied to plate.
- For two tubes.
 Supply voltage applied through 20000-ohm voltage-dropping resistor.
 S0000 ohms.

- § Megohms.

 M Both grids connected together; likewise both cathodes.

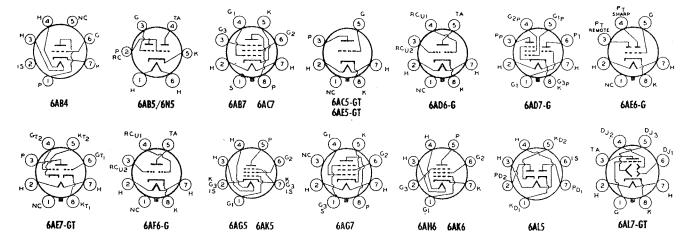
- ** For grid of following tube.

 ** Applied through plate resistor of 250000 ohms.

 ** Either ac or de may be used on filament or heater, except as specifically noted. For use of de on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

 ** Applied through plate resistor of 100000 ohms.

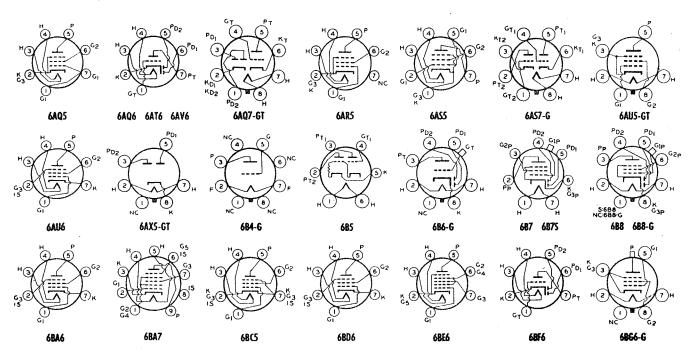
 ** With tube mounted horizontally and pins No. 4 and
- Applied through plate resistor of 100000 ohms. With tube mounted horizontally and pins No. 4 and No. 8 in a vertical plane (pin 4 on top), deflecting electrode No. 1 controls left-hand section of pattern, deflecting electrode No. 2 controls top right-hand section of pattern, deflecting electrode No. 3 controls bottom section of pattern, deflecting electrode No. 3 controls bottom section of pattern.



6AQ5 to 6BG6-G

Туре	Name	Tube Di- men- sions	aı	thode 1 nd Rati	ng	Use Yelves to right give operating conditions and characteristics for indicated hypical use	Plate Sup- ply	Grid Bias ta	Screen Sup- ply	Screen * Cur- rent	Plate Cur- rent	AC Pate Resis- tance	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Power Output	Power Out- put	Туре
••		SIOIIS	C. T.	Volts	Ang.	,	Velts	Velts	Velts	M2	Ma.	Ohms	µ ahe s		Ohms	Watts	
6AQ5	Beam Power Amplifier	81	н	6.3	0.45	Single Tube Class A Amplifier Push-Pull Class AB ₁ Amplifier	180 250 250	- 8.5 -12.5 -15.0	180 250 250	3.0 4.5 5.0	29.0 45.0 70.0	58000 52000 60000	3700 4100		5500 5000 10000	2.0 4.5 10.0†	6AQ5
6AQ6	Duplex-Diode High-Mu Triode	80	н	6.3	0.15	Triode Unit as Class A Amplifier	100 250	- 1.0 - 3.0	1-		0.8	61000 58000	1150 1200	70 70			6AQ6
6A Q7-GT	Twin-Diode High-Mu Triode	C2b	н	6.3	0.3	Triode Unit as Class A Amplifier	250	2			2.3	44000	1600 -	70			6AQ7-GT
6AR5	Power Pentode	81	н	6.3	0.4	Class A Amplifier	250 250	-16.5 -18	250 250	10 10	34.0 32.0	65000 68000	2400 2300		7000 7600	3.2 3.4	6AR5
6AS5	Beam Power Amplifier	81	н	6.3	0.8	Class A Amplifier	150	- 8.5	110	2.0	35		5600		4500	2.2	6AS5
6AS7-G	Low-Mu Twin Power Triode	E2	н	6.3	2.5	DC Amplifier Booster Tube for Television Scanning		Cath. I Peak Inver Teater—C		Volts, 170				2.0 Current (I pation (Pe			6AS7-G
6AT6	Duplex-Diode High-Mu Triode	80	н	6.3	0.3	Triode Unit as Class A Amplifier	100 250	- 1.0 - 3.0			0.8	54000 58000	1300 1200	70 70			6AT6
6AU5-GT	Beam Power Amplifier	C2b	н.	6.3	1.25	Horizontal Deflec- tion Amplifier in TV Equipment		C Plate Vo				Max. Peak Max. Plate				00	6AU5-GT
6AU6	RF Amplifier Pentode	80	н	6.3	0.3	Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5.0 10.6	500000 1.0§	3900 5200	Cath. B	ias Res., I ias Res.,		6AU6
6AV6	Twin-Diode High-Mu Triode	80	н	6.3	0.3	Triode Unit as Class A Amplifier	100 250	- 1.0 - 2.0	$\Gamma =$		0.5	80000 62500	1250 1600	100 100			6AV6
6AX5-GT	Full-Wave Rectifier	C2h	н	6.3	1.2	With Capacitive- Input Filter With Inductive- Input Filter	Max. AC Max. Pe Max. AC	Volts per ak Inverse Volts per ak Inverse	Volts, 12 Plate (R	50 MS), 450	Max Max Max	. DC Outpu . Peak Plat . OC Outpu . Peak Plat	e Ma., 375 it Ma., 150 e Ma., 375	5 Impe 0 Min. 5 Chok	Total Effe d. per Pla Value of e, 10 henr	ite, 105 Input ries	6AX5-GT
684-G	Power Amplifier Triode	E2	,	6.3	1.0	Class A Amplifier Push-Pull Glass AB ₁ Amplifier	250 325 325		ias, 850 ol		80.04 80.04	800	5250	4.2	2500 5000 3000	3.20 10.0† 15.0†	6 B 4-G
6B5	Direct-Coupled Power Amplifier	D12	н	6.3	0.8	Class A Amplifier			F	or other c	haracteri	stics, refer	to Type 61	N6-G.		3	6B5
6B6-G	Duplex-Diode High-Mu Triode	Ds	н	6.3	0.3	Triode Unit as Amplifier						stice, refer		-		3	6B6-G
6 B 7	Duplex-Diode Pentode	Da	н	6.3	0.3	Pentode Unit as Amplifier	Input Tr Output 1	Friode: Pla	ate Volts, ate Volts, 00 ohms;	300 max.	, Plate N	lts, 0; Plate Ia., 45; Pla vatts.	: Ma., 8; A te Res., 24	AF Signal \ 000 ohms,	/olts (Pea Load Res	ik), 21 sistance,	6B7
6B7S	Duplex-Diode Pentode	D9	Н	6.3	0.3	Pentode Unit as Amplifier			Fo	or other cl	haracteri	stics, refer t	о Туре 6В	37.			6B7S
628	Duplex-Diode Pentode	C1	н	6.3	0.3	Pentode Unit as Amplifier				or other c		stics, refer		IC8.			6B8
688-G	Duplex-Diode Pentode	D8	н	6.3	0.3	Pentode Unit as RF Amplifier Pentode Unit as AF Amplifier	100 250 90 x 6 300 x 6	- 3.0 - 3.0 Cath. Bias Cath. Bias	100 125 , 3500 ohi , 1600 ohi	1.7 2.3 ms. Screen ms. Screen	5.8 9.0 Resiston Resiston	300000 600000 or = 1.1 me or = 1.2 me	950 1125 eg. Grid R eg. 0.5 me	esistor,**	Gain per Gain per	stage = 55 stage = 79	6B8-G
6BA6	RF Amplifier Pentode	80	н	6.3	0.3	Class A Amplifier	100 250	Cath. Bias	100 100	4.4	10.8 11.0	250000 1.0	4300 , 4400	Cath. B	ias Res., ias Res.,	68 ohms	6BA6
6BA7	Pentagrid Converter A	E0a	н	6.3	0.3	Converter	100 250	- 1.0 - 1.0	100 100	10.2 10.0	3.6	500000 1.0§		1 Resistor on Transco			6BA7
6BC5	Sharp-Cutoff Pentode	80	н	6.3	0.3	Class A Amplifier	250	Cath. Bias	150	2.1	7.5	800000	5700	Cath. B	ias Res.,	180 ohms	6BC5
6BD6	Remote-Cutoff Pentode	80	н	6.3	0.3	Class A Amplifier	100 250	- 1 - 3	100 100	5.0 3.0	9.0	150000 800000	2550 2000		20000 -		6BD6
6BE6	Pentagrid Converter▲	BO	н	6.3	0.3	Converter	100 250	- 1.5 - 1.5	100 100	7.5 7.5	2.6 2.6	400000 1.0§		Resistor, sion Transc		ms micromhos	
6BF6	Duplex-Diode Triode	B0	н	6.3	0.3	Triode Unit as Class A Amplifier			F	or other c	haracteri	stics, refer	to Type 65	SR7.			6BF6
68G6-G	Beam Power Amplifier	Ft	н	6.3	0.9	Horizontal Deflec- tion Amplifier in TV Equipment	Max. DO	C Plate Vo C Plate M:	olts, 700 a., 100					sitive-Puls		olts, 6000	6BG6-G

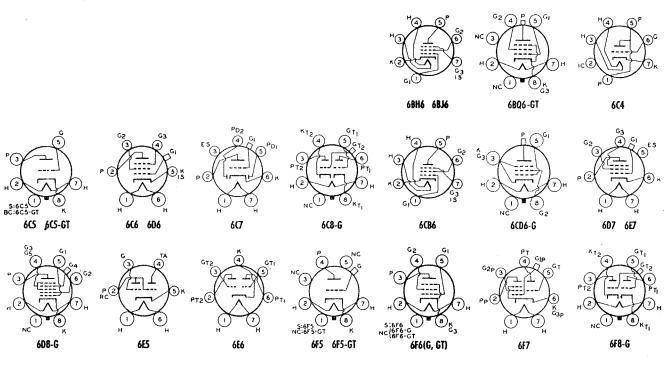
For footnotes, see preceding page.



6BH6 to 6F8-G

Туре	Name	Tube Di- men- sions		thode nd Ra		Use Yalues to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Yelts	Grid Bias st	Screen Sup- ply Yels	Screen Cur- rent Ma	Plate Cur- rent	AC Plate Resis- tance	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Pewer Output Obeas	Power Out- put Watts	Туре
6BH6	Sharp-Cutoff Pentode	50	н	6.3	0.15	Class A Amplifier	100 250	- 1.0 - 1.0	100 150	1.4	3.6 7.4	700000 1.45	றங்க் 3400 4600		UNAS		6BH6
6BJ6	RF Amplifier Pentode	80	Н	6.3	0.15	Class A Amplifier	100 250	- 1.0 - 1.0	100 100	3.5	9.0	250000 1.35	3650 3800				6BJ6
6BQ6-GT	Beam Power Amplifier	C11	н	6.3	1.2	Horizontal Deflec- tion Amplifier in TV Equipment		Plate Vol			1_2.2	Max.	Peak Posi	tive-Pulse sipation, 10	Plate Vol) watts	ts, 4000	6BQ6-GT
6C4	HF Power Triode	8 0	н	6.3	0.15	Class A Amplifier	100 250	- 8.5			11.8 10.5	6250 7700	3100 2200	19.5 17			6C4
<u> </u>						Class C Amplifier	300	-27.0			25.0	Driving 1	rent, 7 ma Power, 0.3	5 watt		5.5	
6C5-GT	Medium-Mu Triodes	B2 C3	н	6.3	0.3	Class A Amplifier	250 90♥ 300♥	- 8.0 Cath. Bias Cath. Bias	, 5300 oh	ms.}		10000 mistor,** 0.2		^{l.} ∫Gai	n per stag n per stag	ge == 13	6C5 6C5-GT
6C6	Sharp-Cutoff	D18	н	6.3	0.3	Bias Detector Amplifier	250	-17.0 ap				adjusted to tics, refer to			no signa	l.	606
6CB6	Pentode Sharp-Cutoff	B0	н	6.3	0.3	Detector Class A Amplifier	200	Cath.	150	2.8	9.5	600000	6200		. D 10	20	6CB6
6C7	Pentode Duplex-Diode Triode	D9	н	6.3	0.3	Triode Unit as Class A Amplifier	250	Bias - 9.0			4.5	16000	1250	Cath. Bis			6C7
6C8-G	Twin-Triode Amplifier	D8	н	6.3	0.3	Each Unit as Amplifier	250	- 4.5			3.2	22500	1600	36			6C8-G
6CD6-G	Beam Power Amplifier	FI	н	6.3	2.5	Horizontal Dellec- tion Amplifier in TV Equipment		C Plate Vol C Plate Ma				Max. Peak Max. Plate				0	6CD6-G
6D6	Remote-Cutoff Pentode	D13	н	6.3	0.3	Amplifier Mixer			For	other ch	aracteris	tics, refer to	Type 6U	7-G.			6D6
6D7	Sharp-Cutoff Pentode	D13	н	6.3	0.3	Amplifier Detector			For	other ch	aracteris	tics, refer to	Type 6J7				6D7
6D8-G	Pentagrid Converter p	D8	н	6.3	0.15	Converter	135 250	- 3.0 - 3.0	67.5 100	1.7	1.5	400000	I.3 ma. Ose Conversion	l (#2): 2 cillator-Gri Transcon	d (#1) R d., 550 m	esistor . icromhos.	6D8-G
6 E 5	Electron-Ray Tube	D4	н	6.3	0.3	Visual Indicator	Grid I	Bias, ~ 4.0 Is Target Su	volts; Shapply = 25	dow Ang	le, 0°. B riode Pla	ate Resistor ias, 0 volts; ate Resistor ias, 0 volts;	= 1.0 meg Angle, 90 = 1.0 meg	Target Cu o; Plate C Target Cu	urrent = 0 Current, 0 urrent = 2	.8 ma. .1 ma.	6E5
6E6	Twin-Triode Power Amplifier	D12	н	6.3	0.6	Push-Pull Class A Amplifier	180 250	-20.0 -27.5			Powe	r Output is ated plate-to	for one tul	be at	15000 14000	0.75 1.60	6 E 6
6E7	Remote-Cutoff Pentode	D13	н	6.3	0.3	Amplifier			Por	other ch	aracteris	tics, refer to	Type 6U	7-G.			6E7
6F5	High-Mu Triode	C1	Н	6.3	0.3	Amplifier						tics, refer to					6F5
6F5-GT	High-Mu Triode	C2b	н	6.3	0.3	Amplifier Pentode	250	16.5	250	6.5	34.0	80000	2500	's.	7000	. 3.2	6F5-GT
6F6		C2				Class A Amplifier Triode□	285 250	-20.0	285	7.0	38.0	78000 2600	2550 2600	6.8	7000	4.8	6 F 6
6F6-G	Power, Pentodes	D10	н	6.3	0.7	Class A Amplifier Pentode Push-Pull Class A Amplifier	315 315	Cath. Bias -24.0	285 285	12.0	62.0 de 62.0 de	Cath. Bias			4000 10000 10000	0.85 10.5† 11.0†	6F6-G
6F6-GT		C10				Pentode Push-Pull Class AB ₁ Amplifier	375 375	Cath. Bias -26.0	250 250	8.0¢ 5.0¢	54.0 34.0	Cath. Bias			10000 10000	19.0† 18.5†	6F6-GT
						Triode Push-Pull□ Class AB ₁ Amplifier	350 350	Cath. Bias -38.0			50.0♠ 48.0♠	Cath. Bias	Resistor, 73	0 ohms	10000 6000	9.0† 13.0†	
						Trìode Unit as Class A Amplifier	100	$\left\{ \begin{array}{c} -3.0\\ \text{min.} \end{array} \right\}$			3.5	16000	500	8			
6 F 7	Triode- Pentode	De	н	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	(- 3.0) min.	100 100	1.6 1.5	6.3 6.3	290000 850000	1050 1100				6 F 7
						Pentode Unit as Mixer	250	-10.0	100	0.6	2.8			olts = 7.0 cond. = 3		nhos.	
6F8-G	Twin-Triode Amplifier	De	н	6.3	0.6	Each Unit as Amplifier			For	other ch	aracteris	tics, refer to	Type 6]5				6F8-G

For footnotes, see following page.



Туре	Name	Tube Di- men- sions		thode nd Rat Vets		USB Values to right give operating conditions and thereciselaties for indicated typical use	Plate Sup- ply Valts	Grid Bias S	Screen Sup- ply Valts	Screen Cur- rent	Plate Cur- rent	AC Plate Rosis- tance	Trans- conduc- tance (GrH-plate)	Amplifi- cation Factor	Load for Stated Power Output	Power Out- put	Туре
6G6-G	Power Amplifier Pentode	D3	н	6.3	0.15	Pentode Class A Amplifier Triode	135 180	- 6.0 - 9.0	135 130	2.0 2.5	11.5 15.0	170000 175000	2100 2300		12000 10000	0.6 1.1	6G6-G
6H6 6H6-GT	Twin Diodes	A1a C3	н	6.3	0.3	Class A Amplifier Voltage Doubler Half-Wave Rectifier	Max. A	-C Supply Fotal Effect -C Plate V	. Plate-Su olts (RM:	pply Imp S), 150	11.0 MS), 150 ed. per I	Min, Tot	vave, 30 oh tal Effectiv	ms; full-w e Plate-Su	ave, 15 of	edance: ur	6H6-G
ี	Medium-Mu Triodes	B2 B3	н	6.3	0.3	Class A Amplifier	90 250	0 - 8.0	Ma., 8 pe	Plate	10.0	6700 7700	volts, 15 c	20 20 20	50 volts,	0 ohms.	6J5
e1e	Medium-Mu Twin Triode	BO	н	6.3	0.45	Each Unit as Class A Amplifier Push-Pull Class C Amplifier	100				8.5	7100 Grid Cui	5300 rrent, 16 m Power, 0.3	38 a.		3.5	ยร-G1
6J7	Sharp-Cutoff	C1				Pentode Class A RF Amplifier Pentode Class A	100 250 90 ×	- 3.0 - 3.0 Cath. Bias,	100 100 2600 ohr	0.5 0.5 ns. Screen	2.0 2.0 Resistor	1.0§ 1.0 +§	1185 1225 g.) Grid Re	sistor.**((Gain per s	tage = 85	6J7
ಟ7-G ಟ7-GT	Pentodes	D8 C3	н	6.3	0.3	AF Amplifier Pentode Bias Detector Triode	250 180	- 4.3 - 5.3	100 ohr	ns. Screen	Current	= 1.2 me	g.) 0.5 me Plate R	egohm. (0 esistor, 50 esistor, ** 2	Gain per st 0000 ohm	age = 140	ีย7-G ย7-GT
618-G	Triode- Heptode Converter	D8	н	6.3	0.3	Class A Amplifier Triode Unit as Oscillator Heptode Unit	250 100 250 a	8.0 Triode- 50 3.0	Grid Resi 000 ohms 100	3.0	6.5 4.0 5.8 1.4	Triode-C Triode-C	1900 Grid & Her Grid & Her Conversion	20 ptode-Grid ptode-Grid	Current, id., 250 m	0.4 ma. icromhos.	ย8-ต
6K5-GT	High-Mu Triode	C3	н	6.3	0.3	as Mixer Class A Amplifier	100	- 1.5	100	2.9	0.35	78000	Conversion 900	70	id., 290 m	icromhos.	6K5-GT
6K6-GT	Power Amplifier Pentode	C3	н	6.3	0.4	Single-Tube Class A Amplifier Push-Pull Class A Amplifier	250 100 250 315 285 285	- 3.0 - 7.0 -18.0 -21.0 -25.5	100 250 250 250 285 285	1.6 5.5 4.0 9.04	9.0 32.0 25.5 55.0	50000 104000 90000 110000	1400 1500 2300 2100	70	12000 7600 9000 12000	0.35 3.40 4.50	6K6-GT
6K7 6K7-G 6K7-GT	Remote-Cutoff Pentodes	C1 D8 C3	н	6.3	0.3	Class A Amplifier Mixer in Superheterodyne	100 250 250	- 1.0 - 3.0	100 125	9.0 2.7 2.6	9.5 10.5	150000 600000	1650 1650 Oscillator		12000	, 9.8†	6K7 6K7-G
SK8-G	Triode-Hexode Converters	C1 D8	н	6.3	0.3	Triode Unit as Oscillator Hexode Unit	100		-Grid Rea 000 ohms 100		3.8	Triode-G	rid & Hexc	de-Grid C	Current, 0	- 1	6K7-GT 6K8 6K8-G
6K8-GT	Medium-Mu	C10 D3	н	6.3	0.15	as Mixer Class A Amplifier	250 135	- 3.0	100	6.0	2.5 3.5	11300	20nversion 1500	Transcon 17	d., 350 m	icromhos.	6K8-GT
-	Triode					Single-Tube Class À Amplifier	250 250 250	- 9.0 -14.0 Cath. Bias	250 250	5.0 5.4	72.0 75.0	9000 ——————————————————————————————————	1900 ———————————————————————————————————	17 70 ohms.	2500 2500	6.5 6.5	0L3-G
6L6 SL6-G	Beam Power Amplifiers	D7	н	6.3	0.9	Push-Pull Class A Amplifier Push-Pull Class AB ₁ Amplifier Pusk-Pull	270 270 360 360 360	-17.5 Cath. Bias -22.5 Cath. Bias -18.0	270 270 270 270 270 225	11.0 \$\frac{1}{2}\$ 11.0 \$\frac{1}{2}\$ 5.0 \$\frac{1}{2}\$ 5.0 \$\frac{1}{2}\$ 5.0 \$\frac{1}{2}\$	134.0 4 134.0 4 88.0 4 88.0 4 78.0 4 88.0 4	Cath. Bias I			5000 5000 6600 9300 6000	17.5† 18.5† 26.5† 24.5† 31.0†	6L6 6L6-G
						Class AB, Amplifier Single Triode Class A Amplifier	360 250 250	-22.5 -20.0 Cath. Bias	270	5.0 \$	40.0 40.0		4700 Resistor, 4 ator-Grid (3800 5000 6000	47.0† 1.4 1.3	
6L7 6L7-G	Pentagrid Mixersa	C1 D8	н	6.3	0.3	Mixer in Superheterodyne Class A Amplifier	250 250	- 3.0d	100 100	7.1 6.5	2.4 5.3	Grid Conve	#3 Peak S ersion Trai	wing, 12 v	olts minir	num.	6L7 6L7-G
6N6-G	Direct-Coupled Power Triode	D10	н	6.3	0.8	Ciass A Amplifier	Trio	out Triode: le: Plate Ve				Signal Volt	ts (Peak), 2	1; Plate M		4.0	6N6-G
SN7 SN7-GT	High-Mu Twin Power Triodes	C2 C3	н	6.3	0.8	Class A Amplifier (as Driver)° Class B Amplifier	250 294 300	- 5.0 - 6.0	_			11300 11000 Output is ated plate-		ibe at	20000 or more 8000	0.4 10.0	6N7-GT

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

Light Face Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.

† Power output is for two tubes at stated plate-to-plate load.

☐ Grid # 2 tied to plate.

- For two tubes.

 Supply voltage applied through 20000-ohm voltage-

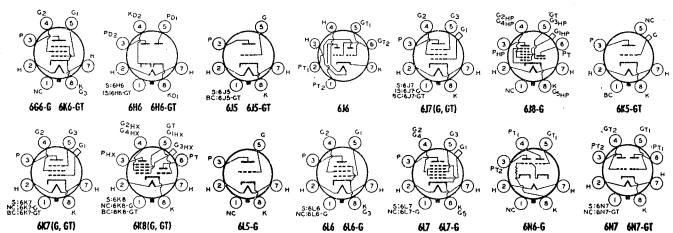
Megohms.
 For signal-input control-grid (%1); control-grid %3 bias, -3 volts.
 Grids %2 and %3 tied to plate.
 Both grids connected together; likewise, both plates.
 Note 2: Subscript 2 on class of amplifier service (as AB₃) indicates that grid current flows during some part of input cycle.
 A Grids %2 and %4 are screen. Grid %3 is signal-input control grid.

** For grid of following tube.

Applied through plate resistor of 250000 ohms.

Either ac or de may be weed an all. ■ Either ac or de may be used on filament or heater, except as specifically noted. For use of de on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

 ▼ Applied through plate resistor of 100000 ohms.



6P5-GT to 6SQ7-GT

Туре	Name	Tube Di- men- sions	a	thode nd Rai	ing	Values to right give eperating conditions end characteristics for indicated typical use	Plate Sup- ply	Grid Bias #	Screen Sup- ply	Screen Cur- rent	Plate Cur- rent	AC Plate Resis- tance	Trans- conduc- tance (Grid-siate)	Amplifi- cation Factor	Load for Stated Power Output	Power Out- put	Туре
	Medium-Mu		C. T.	Volts	Анд . 0.3	Amplifier	Valts	Veits	Velts	Ma	Ma.	Ohmas stics, refer t	μ πλας		Ohms	Walts	6P5-GT
6P5-GT	Triode Triode-	C3	ļ	6.3		Detector Amplifier	L										6P7-G
6P7-G	Pentode	D8	н	6.3	0.3	and Converter			Fo	r other c		stics, refer t		7.	Ţ		
6Q7 6Q7-G	Twin-Diode High-Mu Triodes	C1 D8	н	6.3	0.3	Triode Unit as Class A Amplifier	100 250 90×	- 1.0 - 3.0 Cath. Bias			0.8 1.1	58000 58000 sistor.** 0.5	1200 1200 megohm	70 ∫Ga	in per stag		6Q7 6Q7-G 6Q7-GT
6Q7-GT 6R7		C3 C1					300×	Cath. Bias	, 3000 oh	ms.)	9.5	8500	1900	16	in per star	ge = 45	6R7
6R7-GT	Twin-Diode Medium-Mu Triodes	D8 C2b	н	6.3	0.3	Triode Unit as Class A Amplifier	90♥					istor, ** 0.2	1	∫Ga	in per star in per star		6R7-G 6R7-GT
654	Medium-Mu Triode	B3	н	6.3	0.6	Vertical Deflection Amplifier in TV Equipment		C Plate Vol C Cathode				Max. Peak Max. Plate				0	654
6\$7 6\$7-G	Remote-Cutaff Pentodes	C1 Da	н	6.3	0.15	Class A Amplifier	135 250	- 3.0 - 3.0	67.5 100	0.9 2.0	3.7 8.5	1.0§ 1.0§	1250 1750				6S7 6S7-G
6S8-GT	Triple-Diode Triode	C96	н	6.3	0.3	Triode Unit as Class A Amplifier	100 250	- 1.0 - 2.0			0.4	110000 91000	900 1100	100 100			658-GT
6SA7	Pentagrid Converter▲	82	н	6.3	0.3	Mixer	100 250	Self- Excited	100 100	8.5	3.3	500000 1.0§	Grid #1 I Conversio	Resistor, 20 on Transcor	0000 ohms id., 450 mi	cromhos.	6SA7
6SA7-GT	Pentagrid Converter▲	C3	н	6.3	0.3	Mixer		•	Fo	r other c	haracteris	stics, refer t	Type 6SA	A7.			6SA7-GT
6SB7-Y	Pentagrid Converter	B2	н	6.3	0,3.	Mixer	100 250	- 1.0 - 1.0	100 100	10.2	3.6	500000 1.0§	Grid #1 F Conversio	Resistor, 20 n Transco	0000 ohms nd., 9 50 m	icromhos	6SB7-Y
6SC7	Twin-Triode	B2 ′	н	6.3	0.3	Each Unit as Amplifier	250	- 2.0			2.0	53000	1325	70			6SC7
6SF5	High-Mu Triodes	82	н	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 2.0 Cath. Bias	R900 ob		0.4	85000 66000	1150 1500	100 100	in per sta	ze = 43	6SF5 6SF5-GT
SF5-GT		C3	<u> </u>				300 ×	Cath. Bias			Grid Res	istor,** 0.5	megohm.	{Ga	in per sta	ge = 63	031 3-G1
6SF7	Diode- Remote-Cutoff Pentode	B 2	н	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	- 1.0 - 1.0	100 100	4.3 4.1	13.5 13.9	200000 700000	1975 2050				6SF7
6SG7	Remote-Cutoff Pentode	B2	н	6.3	0.3	Class A Amplifier	100 250 250	- 1.0 - 1.0 - 2.5	100 125 150	3.2 4.4 3.4	8.2 11.8 9.2	250000 900000 1.0+§	4100 4700 4000				6SG7
6SH7	Sharp-Cutoff Pentode	82	н	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 1.0	100 150	2.1	5.3 10.8	350000 900000	4000 4900				6SH7
6SJ7 6SJ7-GT	Sharp-Cutoff Pentodes	82 C3	н	6.3	0.3	Class A Amplifier	100 250 90 ×	3.0 3.0 Cath. Bias			2.9 3.0 Grid Res	700000 1.0+§	1575 1650 megohm.		in per stag		6SJ7 6SJ7-GT
6SK7 6SK7-GT	Remote-Cutoff Pentodes	B2 C3	н	6.3	0.3	Class A Amplifier	300 × 100 250	- 1.0 - 3.0	, 860 oh 100 100	4.0 2.6	13.0	120000 800000	2350 2000	(Ga	in per star	çe = 10/ 	6SK7 6SK7-GT
6SL7-GT	Twin-Triode Amplifier	C3	н	6.3	0.3	Each Unit as Amplifier	250	- 2.0	—-s		2.3	44000	1600	70			6SL7-GT
6SN7-GT	Twin-Triode	C3	н	6.3	0.6	Each Unit as Amplifier		-	Fo	r other c	haracteri	stics, refer t	o Type 6J	s.			6SN7-GT
6SQ7 6SQ7-GT	Twin-Diode High-Mu Triodes	B2 C3	н	6.3	0.3	Triode Unit as Class A Amplifier	100 250 90 ×	- 1.0 - 2.0 Cath. Bias		hms.)	0.5	110000 85000 sistor, ** 0.	925 1175		in per stag		65Q7 65Q7-GT

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.
† Power output is for two tubes at stated plate-to-plate load.

prate load.

Grids \$2 and \$4 are screen. Grid \$3 is signalinput control grid.

Note 1: Subscript 1 on class of amplifier service

(as AB₁) indicates that grid current does

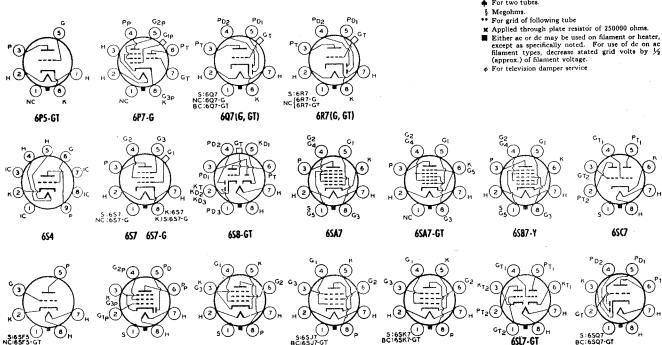
not flow during any part of input cycle.

For two tubes

- For two tubes.

6SN7-GT

6SQ7(GT)



6SJ7(GT)

6SH7

6SG7

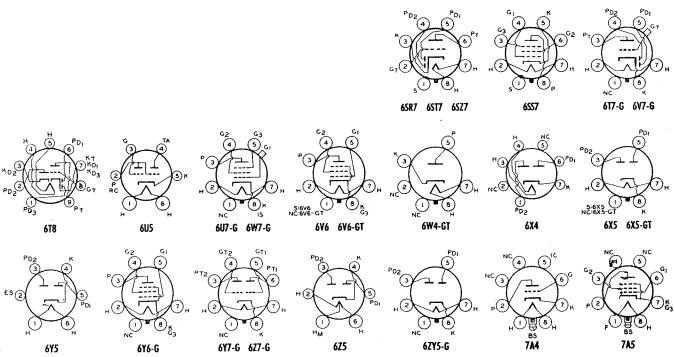
6SF7

6SF5(GT)

6SK7(GT)

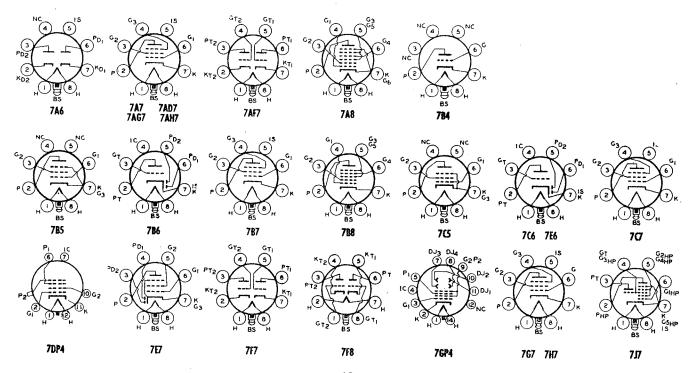
Туре	Name	Tube Di- men- sions		thode nd Rat Valts		Use Yalues to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Yets	Grid Bias ■ Vets	Screen Sup- ply Vots	Screen Cur- rent Ms	Plate Cur- rent Ma.	AC Plate Resis- tance Ohms	Trans- conduc- tance (Grid-plate) pattes	Amplifi- cation Factor	Load for Stated Pewer Output Obers	Power Out- put Watts	Туре
6SR7	Duplex-Diode Triode	B2	н	6.3	0.3	Triode Unit as Class A Amplifier	250	<u>~</u> 9.0			9.5	8500	1900	16	10000	0.3	6SR7
6557	Remote-Cutoff Pentode	B2	н	6.3	0.15	Class A Amplifier	100 250	- 1.0 - 3.0	100 100	3.1 2.0	12.2 9.0	120000 1.0§	1930 1850				6557
6ST7	Duplex-Diode Triode	B2	н	6.3	0.15	Triode Unit as Amplifier			For	other ch		tics, refer to					6ST7
65 Z 7	Duplex-Diode High-Mu Triode	B2	н	6.3	0.15	Triode Unit as Class A Amplifier	100 250	- 1.0 - 3.0			0.8 1.0	61000 58000	1150 1200	70 70			6 SZ 7
6T7-G	Duplex-Diode High-Mu Triode	D8	н	6.3	0.15	Triode Unit as Class A Amplifier	135 250 90 × 300 ×				0.9 1.2 Frid Res	65000 62000 istor,** 0.5	1000 1050 megohm.		n per stag		6T7-G
6T8	Triple-Diode High-Mu Triode	B0a	н	6.3	0.45	Triode Unit as Class A Amplifier	100 250	- 1 - 3	18, 4580 ol	ms.)	0.8	54000 58000	1300 1200	70 70	n per stas	(e == 40	6Т8
6U5	Electron-Ray Tube	D4	н	6.3	0.3	Visual Indicator	Plate & Grid B Plate & Grid B	Target Sulias, -8 v Target Sulias, -22 v	olts; Shac pply = 25 volts; Shac	low Angl 0 volts. T dow Angl	riode Plane, 0°. Bi riode Plane, 0°. Bi le, 0°. B	ate Resistor as, 0 volts; ate Resistor as, 0 volts:	= 0.5 meg Angle, 90° = 1.0 meg Angle, 90°	Target Cu ; Plate Cu Target Cu	irrent, 0.	19 ma. 1.0 ma.	6U5
6U7-G	Remote-Cutoff Pentode	D12a	н	6.3	0.3	Class A Amplifier Mixer in Superheterodyne	100 250 100 250	- 3.0 - 3.0 -10.0 -10.0	100 100 100 100	2.2	8.0	250000 800000	1500 1600 Oscillator	Peak Volt	a = 7.0	<u> </u>	6U7-G
6V6 6V6-GT	Beam Power Amplifiers	C2 C3	н	6.3	0.45	Single-Tube Class A Amplifier Push-Pull Class AB ₁ Amplifier	180 250 315 250 285	- 8.5 -12.5 -13.0 -15.0 -19.0	180 250 225 250 285	3.0 4.5 2.2 5.0 4.0	29.0 45.0 34.0 70.0 70.0	58000 52000 77000	3700 4100 3750		5500 5000 8500 10000 8000	2.0 4.5 5.5 10.0† 14.0†	6V6 6V6-GT
6V7-G	Duplex-Diode Triode	D8	н	6.3	0.3	Triode Unit as			1		4	tics, refer to	Туре 85.	<u> </u>		1	6V7-G
6W4-GT	Half-Wave Rectifier	C2a	н	6.3	1.2	With Capacitive- Input Filter		Plate Vol k Inverse				O-C Output Peak Plate M			al Effect. er Plate, 1		6W4-GT
6W7-G	Sharp-Cutoff Pentode	D8	н	6.3	0.15	Class A Amplifier	250	- 3.0	100	0.5	2.0	1.5§	1225				6W7-G
6X4	Full-Wave Rectifier	B3	н	6.3	0.6	With Capacitive- Input Filter With Inductive- Input Filter	Max. Per Max. A-C	Volts per ak Inverse Volts per ak Inverse	Volts, 125 Plate (RI	0 VIS), 450	Max.	D-C Outpu Peak Plate D-C Outpu Peak Plate	Ma., 210 t Ma., 70	Imped. p	al Effect. er Plate, lue of In henries	150 ohms	6X4
6X5 6X5-GT	Full-Wave Rectifiers	C2 C3	н	6.3	0.6	With Capacitive- Input Filter With Inductive- Input Filter	Max. Per	Volts per ak Inverse Volts per ak Inverse	Volts, 125 Plate (RI	50 MS), 450	Max. P	eak Plate M COutput eak Plate M eak Plate M	ľa., 210 Ma., 70	Imped. p Min. Val		Supply 150 ohms ut Choke,	6X5 6X5-GT
6Y5	Full-Wave Rectifier	D5	н	6.3	0.8	With Capacitive- Input Filter						per Plate (out Ma., 50	RMS), 350				6Y5
6Y6-G	Beam Power Amplifier	D10	н	6.3	1.25	Single-Tube Class A Amplifier	135 200	-13.5 -14.0	135 135	3.5	58.0 61.0	9300 18300	7000 7100		2000 2600	3.6 6.0	6¥6 -G
6Y7-G	Twin-Triode Amplifier	D3	н	6.3	0.6	Class B Amplifier		***********	Fo			stics, refer t					6Y7-G
6Z5	Full-Wave Rectifier	D5	н	6.3 12.6	0.8	With Capacitive- Input Filter					O-C Out	s per Plate (out Ma., 60					6 2 5
6Z7-G	Twin-Triode Amplifier	D3	н	6.3	0.3	Class B Amplifier	135 180	0			s	er Output is tated plate-	to-plate los	ad.	9000 12000	2.5 4.2	6 Z 7-G
6ZY5-G	Full-Wave Rectifier	D3	н	6.3	0.3	With Capacitive- Input Filter With Inductive- Input Filter	Max. Pe Max. A-	ak Inverse	Volts, 12 Plate (R	50 MS), 450	Max. F	O-C Output Peak Plate N O-C Output Peak Plate N	Ma., 120 Ma., 40	Imped. p Min. Val	tal Effect er Plate, ue of Inpo 3.5 henrie	225 ohms ut Choke,	6ZY5-G
7A4	Medium-Mu Triode	85	н	6.3	0.3	Amplifier			Fo	r other cl	haracteri	stics, refer t		5.			7A4
7A5	Beam Power Amplifier	C2a	н	6.3	0.75	Class A Amplifier	110 125	- 7.5 - 9.0	110 125	3.0 3.3	40.0 44.0	16000 17000	5800 6000		2500 2700	1.5	7A5

For footnotes, see preceding page



Туре	Name	Tube Di- men- sions		thode ind Rati		Values to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Vels	Grid Bias ■	Screen Sup- ply	Screen Cur- rent	Plate Cur- rent	AC Plate Resis- tance	Trans- conduc- tance (Grid-plate)	cation	Load for Stated Power Output	Power Out- put	Туре
7A6	Twin Diode	B5	н	6.3	0.15	Detector	TOTIS	Volts Max	Volts	Ma. Voltage	Ma. per Plat	Obans e	150	Volts, RI	Obbans √IS	Watts	740
7A7	Remote-Cutoff	BS	н	6.3	0.3	Rectifier Class A Amplifier	 	Max	mun D-C	Output	Current	per plate		Milliamp	егез		7A6
7AD7	Pentode Power	C2a	н	6.3	0.6	Class A Amplifier	ļ	Cath.	150	7.0			o Type 6S				7A7
	Pentode Medium-Mu					 	250	Bias -10	130	7.0	9.0	300000 7600	9500 2100	Cath.	Res., 68	ohms	7AD7
7AF7	Twin Triode	B5	н	6.3	0.3	Each Unit as Class A Amplifier	1	Cath. Bias			10.8	6500	2600	17	Cath. 1100		7AF7
7AG7	Sharp-Cutoff Pentode	B5	Н	6.3	0.15	Class A Amplifier	250	Cath. Bias	250	2.0	6.0	1 meg.	4200		ode-Bias I 250 ohms		7AG7
7AH7	Sharp-Cutoff Pentode	B5	н	6.3	0.15	Class A Amplifier	250	Cath. Bias	250	1.9	6.8	I meg.	3300		Res., 250	ohms	7AH7
7A8	Octode Converter	B5	Н	6.3	0.15	Converter	100 250	- 3.0 - 3.0	75 100	2.7 3.2	1.8	700000	Anode-Grid 4.2 ma. Os Conversion	scillator-Gr	id (#1) F	Resistor .	7A8
7B4	High-Mu Triode	B5	н	6.3	0.3	Amplifier			For	other ch	aracteris		o Type 6SI		id., 330 fi	icroninos.	7B4
7 B 5	Power Amplifier Pentode	C2a	н	6.3	0.4	Class A Amplifier			For	other chi	aracteria	tics, refer t	o Type 6K	6-GT.			7B5
7 B 6	Duplex-Diode High-Mu Triode	B6	Н	5.3	0.3	Triode Unit as Amplifier			For	other cha	racteris	tics, refer t	o Type 6S0	27.			7B6
787	Remote-Cutoff Pentode	85	H	6.3	0.15	Class A Amplifier	250	- 3.0	100	1.7	8.5	750000	1750		[7 B 7
7B8	Pentagrid Converter	B5	н	6.3	0.3	Converter			For	other cha	racteris	tics, refer t	o Type 6Ai	L В.	L		7B8
7C5	Beam Power Amplifier	C2a	н	6.3	0.45	Class A Amplifier			For	other cha	racteris	tics, refer t	o Type 6V	6-G T .			7C5
7C6	Duplex-Diode High-Mu Triode	B5	н	6.3	0.15	Triode Unit as Class-A Amplifier	250	- 1.0			1.3	100000	1000	100			7C6
7C7	Sharp-Cutoff Pentode	85	н	6.3	0.15	Class A Amplifier	100 250	- 3.0 - 3.0	100	0.4	1.8	1.25	1225 1300				7C7
7DP4	Directly Viewed Kinescope	l1	н	6.3	0.6	Picture Reproduction	Focus: El	ectrostation: Magnet Magnet Angle: 50 No. 4 cture with	ç	Requ Do I	ires Extended in the contract of the contract	ernal	Anode-N Anode-N 1216 to 1 Grid-No.	o. 2 Volts o. 1 Volts 644 (2400 2 Volts, 2 1 Volts fo	for Focus, max.) 50 (410 m	ex.)	7DP4
7E6	Duplex-Diode Triode	85	н	6.3	0.3	Triode Unit as Amplifier				other cha	racterist	tics, refer to	Type 6R				7 E 6
7 E 7	Duplex-Diode Pentode	B5	н	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	- 1.0 - 3.0	100	2.7	10.0	150000 700000	1600 1300				7E7
7 F 7	Twin-Triode Amplifier	B5	н	6.3	0.3	Each Unit as Amplifier							o Type 6SI	.7-GT.	·		7F7
7 F 8	Twin-Triode Amplifier	B5	н	6.3	0.3	Each Unit as Class A Amplifier	250	Catho:	le-Bias Re	8.,	6.0		3300	48			7F8
7G7	Sharp-Cutoff Pentode	B5	н	6.3	0.45	Class A Amplifier	250	- 2.0	100	2.0	6.0	800000	4500				7 G 7
7GP4	Directly Viewed Kinescope	к	н	6.3	0.6	Picture Reproduction	Anode-No Anode-No Grid-No.	. I Volta i I Volta fo:	or Focus.	1080 to 10	600	,	For	other char efer to Ty	racteristic pe 7 JP 4.	в,	7GP4
7H7	Sharp-Cutoff Pentode	B3	н	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 2.5	100 150	2.6 3.2	7.5 10.0	350000 800000	4000 4000				7H7
		T				Triode Unit as	100	Triode-	Grid Resis		3.2		irid & Hep	tode-Grid	Current (3 ma.	

For footnotes, see following page.



Туре	Name	Tube Di- men- sions		thode 1 nd Rati		Use Yalves to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Yals	Grid Bias # Volts	Screen Sup- ply Yats	Screen Cur- rent Ma	Plate Cur- rent Ma.	AC Plate Resis- tance Ohms	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Power Output Ohms	Power Out- put Watts	Туре
7JP4	Directly Viewed Kinescope	J	н	6.3	0.6	Picture Reproduction	Deflection Phosphor Size of P	Clectrostation: Electrostr: No. 4 ficture with Ends: 4%	itatic	Anode- Anode- Grid-N Deflecti	No. 1 Vo No. 1 Cu o. 1 Volt ion Facto	d Grid-No. olts for Focurrent Ranges for Visua ors: DJ, and earer base)	us, 1620 to ge, -15 to l Cutoff, - d DJ ₂ (near	2400 (280) + 10 micr 72 to -16 er screen),	oamperes 8		7 JP 4
7K7	Twin-Diode- High-Mu Triode	85	н	6.3	0.3	Triode Unit as Class A Amplifier	250	2			2.3	44000	1600	70			7K7
7L7	RF Amplifier Pentode	B5	н	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 1.5	100	2.4	5.5	100000	3000 3100				7L7
7N7	Twin-Triode Amplifier	C2a	Н	6.3	0.6	Each Unit as Class A Amplifier		1				ics, refer to	L	7-GT	L	L	7N7
7 Q 7	Pentagrid Converter▲	B5	н	6.3	0.3	Converter	100 250	- 2.0 - 2.0	100	8.5 8.5	3.3		Grid #1 F Conversion				7 Q 7
7 R 7	Duplex-Diode Pentode	B5	н	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	- 1.0 - 1.0	100 100	2.2	5.5	350000 1.0§	3000 3200				7R7
757	Triode-Heptode Converter	85	н	6.3	0.3	Triode Unit as Oscillator Heptode Unit as Mixer	100 250 100 250		Grid Res 000 ohms 100 100		3.0 5.0 1.9 1.8	Triode-G Triode-G 500000	rid & Hep rid & Hep Conversion Conversion	tode-Grid Transcor	Current, id., 500 m	0.4 ma. nicromhos.	757
7V7	RF Amplifier Pentode	B5	н	6.3	0.45	Class A Amplifier	300		150	3.9	10.0	300000	5800			160 ohms	7V7
7W7	Rr Amplifier	B5	н	6.3	0.45	Class A Amplifier		L	F	or other o	haracter	istics, refer	to Type 7	L			7W7
7X7	Twin Diode- High-Mu Triode	G2a	н	6.3	0.3	Triode Unit as Class A Amplifier	100 250	0 - 1.0			1.2	85000 67000	1000	85 100			7X7
7 Y 4	Full-Wave Rectifier	B5	н	6.3	0.5	With Capacitive- Input Filter With Inductive- Input Filter	Max. Per Max. A-0	C Volts per ak Inverse C Volts per ak Inverse	Volts, 12 Plate (R	50 RMS), 450	Max Max Max	D-C Outp. Peak Plat. D-C Outp	out Ma., 70 te Ma., 180 out Ma., 70	Min. T Imped. Min	per Plate, . Value o		7 Y 4
7 Z 4	Full-Wave Rectifier	C2a	н	6.3	0.9	With Capacitive- Input Filter With Inductive- Input Filter	Max. A-C Max. Pea Max. A-C	Volts per k Inverse Volts per k Inverse	Plate (R Volts, 12: Plate (R	MS), 325 50 MS), 450	Max Max Max	. Peak Plat . D-C Outp . Peak Plat . D-C Outp . Peak Plat	out Ma., 10 e Ma., 300 out Ma., 10	0 Min. To Imped. 0 Min. Va	oke, 10 h otal Effec per Plate alue of In 6 henries	Supply , 75 ohms put	7 Z 4
9 AP 4	Directly Viewed Kinescope	o	н	2.5	2.1	Picture Reproduction	Deflectio Phosphor	llectrostation: Magnet r: No. 4 Size: 53/8" >	ic .	Anode-No 1192 to 11	o. 1 Volt:	s, 7000 (ma s for Focus, 0 max.) 250 (300 m	Grid-I	No. 1 Volts to60 No. 1 Signs -to-Peak)	al Voltage	·.	9AP4
103	Power Amplifier Triode	E3	F	7.5	1.25	Class A Amplifier	350 425	-32.0 -40.0			16.0	5150 5000	1550 1600	8.0 8.0	11000 10200	0.9	10@
10BP4	Directly Viewed Kinescope				This t	ype has clear glass	face plate,	but in oth	er respec	ts is same	as 10BI	P4-A.					10BP4
10BP4-A	Directly Viewed Kinescope "With Filterglass" Face Plate	м	н	6.3	0.3	Picture Reproduction	Deflection Phosphore Size of P	n: Magnet n Angle: 5	7°		uires Extouble-Fi Ion-Tra Magnet	eld, P	Grid-No Grid-No -27 t Grid-No	Volts, 12000 2 Volts, 2 1 Volts for 63 vol 1 — Circums max.	250 (410 r or Visual ts	Cutoff,	10BP4-A
11 12	Detector★ Amplifier Triode	D22 D82	D.C.	1.1	0.25	Class A Amplifier	90 135	- 4.5 10.5		_	2.5 3.0	15500 15000	425 440	6.6			11 12
12A5	Power Amplifier Pentode	D5	н	6.3 12.6	0.6	Class A Amplifier	100 180	-15.0 -25.0	100 180	3.0 8.0	17.0 45.0	50000 35000	1700 2400		4500 3300	0.8	12 A 5

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.

For Grid-leak Detection—plate volts 45, grid return to + filament or to cathode.

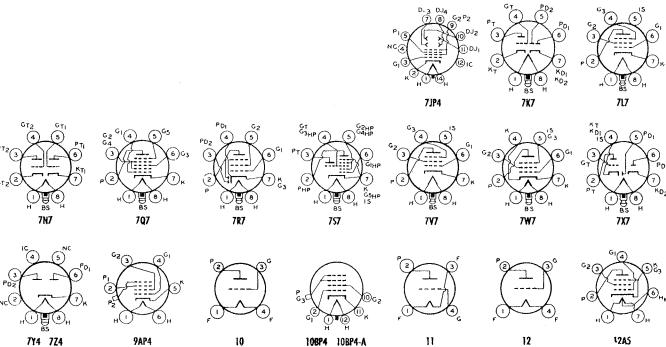
Grids #3 and #5 are screen. Grid No. 4 is signal-input grid.

- ▲ Grids #2 and #4 are screen. Grid #3 is signal-input control grid.

 Supply voltage applied through 20000-ohm voltage-dropping resistor.

 50000 ohms.

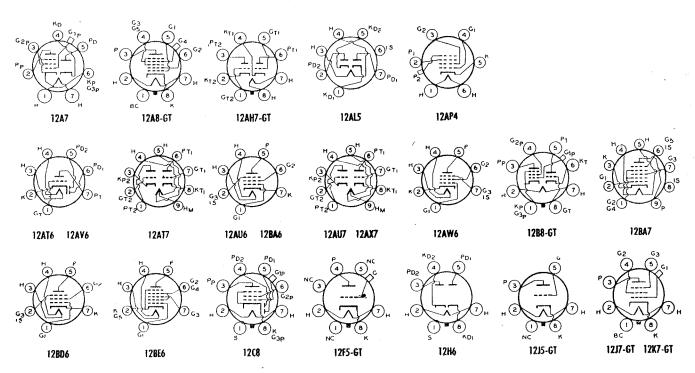
- Megohms.
- Megohms.
 Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.
 Superseded by 10-Y. See Power and Gas Tubes Booklet PG-101A.



12A7 to 12K7-GT

Туре	Name	Tube Di- men- sions		ithode ind Rai Volts		Use Yaluss to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Volts	Grid Bias ■ Valts	Screen Sup- ply Yets	Screen Cur- rent Ma.	Plate Cur- rent- Ma.	AC Plate Resis- tance Ohms	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Locaci for Stated Power Output Ohms	Power Out- put Watts	Туре
12A7	Rectifier- Pentode	D9	н	12.6	0.3	Pentode Unit as Class A Amplifier Half-Wave	135	-13.5 Maxim	135 um A-C l	2.5 Plate Volt	9.0 age	102000	975	125 Volts	13500 , RMS	0.55	12A7
12A8-GT	Pentagrid	СЗ	н	12.6	0.15	Rectifier Converter		Maxim	um D-C	Output C	urrent	stics, refer t		30 Milli	amperes		12A8-GT
12AU-GT	Converter o Twin Triode	C0a	н	12.6	0.15	Each Unit as	100	- 3.6 - 6.5	T	T	3.7	10300 8400	1550 1900	16 16	I	Ī	12AH7-GT
12AL5	Twin-Diode	A1	н	12.6	0.15	Class A Amplifier Detector Rectifier	180	- 6.3	Fo	or other ch		stics, refer t	L		L	1	12AL5
12AP4	Directly Viewed Kinescope	0	н	2.5	2.1	Picture Reproduction	Deflectio Phosphor	lectrostati n: Magnet r: No. 4 Size: 73/8"	ic	Anode-No 1192 to 11	o. 1 Volta 788 (200	s, 7000 (maz s for Focus, 0 max.) 250 (300 ma	- 20 t Grid-I	No. 1 Volts to -60 No. 1 Signs -to-Peak) v x.	l Voltage		12AP4
12AT6	Duplex-Diode High-Mu Triode	В0	н	12.6	0.15	Triode Unit as Class A Amplifier						istics, refer t				,	12AT6
12AT7	High-Mu Twin Triode	B0a	Н	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	100 250		Res., 270 c Res., 200 c		3.7 10.0	15000 10900	4000 5500	60 60			12AT7
12AU6	RF Amplifier Pentode	BO	н	12.6	0.15	Class A Amplifier			F	or other cl	haracteri	stics, refer t	o Type 6A				12AU6
12AU7	Twin-Triode Amplifier	80a	н	6.3	0.3 0.15	Each Unit As Class A Amplifier	100 250	- 8.5			11.8 10.5	6500 7700	3100 2200	20 17			12AU7
12AV6	Twin-Diode High-Mu Triode	BO	н	12.6	0.15	Triode Unit as Class A Amplifier			F	or other c	haracter	istics, refer t	o Type 6A	A V6.			12AV6
12AW6	RF Amplifier Pentode	B 0	н	12.6	0.15	As Pentode Class A Amplifier As Triode ☐ Class A Amplifier			F	or other c	haracteri	istics, refer t	o Type 6A	AGS.			12AW6
12AX7	High-Mu Twin Triode	B0a	н	6.3	0.3 0.15	Each Unit as Class A Amplifier	100 250	- 1.0 - 2.0			0.5	80000 62500	1250 1600	100 100			12AX7
12B8-GT	Triode- Pentode	C10a	н	12.6	0.3	Triode Unit as Class A Amplifier Pentode Unit as Class A Amplifier	90	0 - 3.0	90	2.0	7.0	37000 200000	2400 1800	90			12B8-GT
12BA6	RF Amplifier Pentode	B0	н	12.6	0.15	Class A Amplifier			F	or other c	haracter	istics, refer t	o Type 6E	3A6.	J		12BA6
128A7	Pentagrid Converter	80a	н	12.6	0.15	Converter			F	or other ch	naracteri	stics, refer t	о Туре 6Е	3A7.			12BA7
12BD6	Remote-Cutoff Pentode	B0	н	12.6	0.15	Class A Amplifier		***************************************	F	or other c	haracter	istics, refer t	o Type 6E	BD6.			12BD6
12BE6	Pentagrid Converter	В0	н	12.6	0.15	Converter			F	or other c	haracter	istics, refer t	o Type 6E	3E6.			12BE6
12C8	Duplex-Diode Pentode	C1	н	12.6	0.15	Pentode Unit as RF Amplifier Pentode Unit as AF Amplifier	250 90 x 0 300 x 0	- 3.0 Cath. Bias Cath. Bias	, 1600 oh	ns. Screen	Resisto	600000 r = 1.1 me r = 1.2 me	g.∫ 0.5 me	egohm. (C	rain per s	tage = 5:	
12F5-GT	High-Mu Triode	C-2b	Н	12.5	0.15	Amplifier Detector	ļ					stics, refer t		F5.			12F5-GT 12H6
12H6	Twin-Diode	A1a	H	12.6	0.15	Rectifier						fer to Type					ļ
12J5-GT	Medium-Mu Triode	C3	н	12.6	0.15	Amplifier						stics, refer t					12J5-GT
12J7-GT	Sharp-Cutoff Pentode	G3	н	12.6	0.15	Amplifier						stics, refer t					12J7-GT 12K7-GT
12K7-GT	Remote-Cutoff Pentode	C3	н	12.6	0.15	Amplifier	<u></u>		Fo	or other ch	naracteri	stics, refer t	o Type 6K	.7.			12n1-u1

For footnotes, see following page.



Туре	Name	Tube Di- men- sions		ithode ind Rat		Use Values to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Volts	Grid Bias # Yats	Screen Sup- ply Velts	Screen Cur- rent	Plate Cur- rent	AC Plate Resis- tance Ohrs	Trans- conduc- tance (Grid-pists)	Amplifi- cation Factor	Locadi for Stated Power Output Obsess	Power Out- put Watts	Туре
12K8	Triode-Hexode Converter	C1	н	12.6	0.15	Oscillator Mixer		L-11-2-11-11-11-11-11-11-11-11-11-11-11-1	Fo	r other ch	aracteris	tics, refer t	o Type 5K	8	1	1	12K8
12LP4	Directly Viewed Kinescope				This t	ype has clear glass	face plate,	but in oth	ner respec	ts is same	as 12LF	94- A			···		12LP4
12LP4-A	Directly Viewed Kinescope With "Filterglass" Face Plate	N	н	6.3	0.6	Picture Reproduction	Deflection Phosphor Size of Pl	n: Magnet n Angle: 5	7°	Re	equires E Double Ion-Ti Magn	·Field. rap	Grid-No. Grid-No. – 27 to Grid-No.	olts, 12000 2 Volts, 2 1 Volts 0 -63 volt 1—Circui	250 (410 for Visual	Cutoff,	12LP4-A
12Q7-GT	Duplex-Diode High-Mu Triode	C3	н	12.6	0.15	Triode Unit as Amplifier			Fo	r other ch	aracteris	tics, refer t					12Q7-GT
12SA7	Pentagrid Converter▲	B2	н	12.6	0.15	Mixer			Fo	r other ch	aracteris	tics, refer t	o Type 6S.	A7		***************************************	125A7
12SA7-GT	Converter	C3	н	12.6	0.15	Mixer			Fo	r other ch	aracteris	tics, refer t	o Type 6S.	A 7.			125A7-GT
12SC7	Twin-Triode Amplifier	B2	н	12.6	0.15	Each Unit as Class A Amplifier			Fo	r other ch	aracteris	tics, refer t	o Type 6S0	C7.			12SC7
12SF5	High-Mu Triode	B2	н	12.6	0.15	Class A Amplifier			Fo	r other ch	aracteris	tics, refer t	Type 6Sl	P5.			12SF5
12SF5-GT	High-Mu Triode	C3	H	12.6	0.15	Class A Amplifier			Fo	r other ch	aracteris	tics, refer t	o Type 6SI	F5.			12SF5-GT
12SF7	Diode- Remote-Cutoff Pentode	B2	н	12.6	0.15	Pentode Unit as Amplifier			Fo	r other ch	naracteris	stics, refer t	o Type 6S	F7.			12SF7
125G7	Semi- Remote-Cutoff Pentode	B2	н	12.6	0.15	Class A Amplifier			Fo	r other ch	naracteris	stics, refer t	o Type 6S	G7			12SG7
12SH7	Sharp-Cutoff Pentode	B2	н	12.6	0.15	Class A Amplifier			Fo	r other ch	naracteris	stics, refer t	o Type 6S	H7			12SH7
12SJ7 12SJ7-GT	Sharp-Cutoff Pentodes	B2 C3	н	12.6	0.15	Class A Amplifier			Fo	r other ch	aracteris	tics, refer t	o Type 6S	J7.			12SJ7 12SJ7-GT
125K7 125K7-GT	Remote-Cutoff Pentodes	82 C3	н	12.6	0.15	Class A Amplifier			Fo	r other ch	naract e ris	stics, refer t	o Type 6S	K7.		ÿ	12SK7 12SK7-GT
125L7-GT	Twin-Triode Amplifier	C3	н	12.6	0.15	Each Unit as Amplifier			Fo	r other ch	aracteris	stics, refer t	o Type 6S	L7-GT			125L7-GT
125N7-GT	Twin-Triode Amplifier	C3	н	12.6	0.3	Each Unit as Amplifier			Fo	r other ch	aracteris	itics, refer t	o Type 63:	5.			125N7-GT
125 Q7	Duplex-Diode High-Mu Triode	B 2	н	12.6	0.15	Triode Unit as Amplifier			Fo	r other ch	aracteris	tics, refer t	o Type 6S	Q7.			12SQ7
12SQ7-GT	Duplex-Diode High-Mu Triode	C3	н	12.6	0.15	Triode Unit as Amplifier			Fo	r other ch	naracteris	stics, refer t	o Type 6S	Q7.			125Q7-GT
125R7 12SR7-GT	Duplex-Diode Triode	B2 C3	н	12.6	0.15	Triode Unit as Amplifier			Fo	r other ch		stics, refer t					125R7 12SR7-GT
1258-GT	Triple-Diode- High-Mu Triode	C9a	н	12.6	0.15	Triode Unit as Class A Amplifier	100 250	- 1 - 2			0.4	110000 91000	900 1100	100 100			1258-GT
12Z 3	Half-Wave Rectifier	D8	H	12.6	0.3	With Capacitive- Input Filter	Max. A-0 Max. D-0	C Plate Vo C Output 1	its (RMS Ma., 55), 235	Min. Tot	al Effectiv hms; at 15	e Plate-Su 0 volts, 30	ohms; at	dance: U 235 volts,	Jp to 117 75 ohma	1273
1444	Medium-Mu Triode	B5	н	12.6	0.15	Class A Amplifier			F	or other	haracter	istics, refer	to Type 6.	J 5.			14A4
14A5	Beam Power Amplifier	25	н	12.6	0.15	Class A Amplifier	250	12.5	250	3.5	30	70000	3000		7500	2.8	14A5
14A7	Remote-Cutoff Pentode	85	н	12.6	0.15	Class A Amplifier	100 250	- 1.0 - 3.0	100 100	4.0 2.6	13.0 9.2	120000 800000	2350 2000				34A7

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No = Metal type.

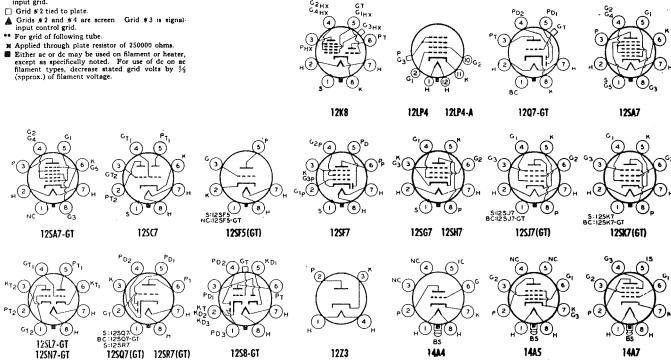
One vertical rule before or after type No = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.

Grids #3 and #5 are screen. Grid No. 4 is signalinput grid.

[Grid #2 tied to plate.



14AF7 to 16GP4

Туре	Name	Tube Di- men- sions		thode nd Rat Voits		Use Values to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Valts	Grid Bias ■ Yots	Screen Sup- ply Volts	Screen Cur- rent Ma	Plate Cur- rent Ma.	AC Plate Resis- tance Ohms	Trans- conduc- tance (Grid-plate) umhos	Amplifi- cation Factor	Load for Stated Power Output Ohms	Power Out- put Watts	Туре
14AF7	Medium-Mu Twn Triode	85	H,	12.6	0.15	Each Unit as Class A Amplifier			Fo	r other cl	naracteri	stics, refer t	o Type 7A	F7.			14AF7
14B6	Duplex-Diode High-Mu Triode	B5	н	12.6	0.15	Triode Unit as Class A Amplifier			F	or other o	haracter	istics, refer	to Type 6	SQ7.			14B6
14B8	Pentagrid Converter o	B5	н	12.6	0.15	Converter						istics, refer		A8.	,		14B8
14C5	Beam Power Amplifier	C2a	н	12.6	0.225	Class A Amplifier	180 315	8.5 13	180 225	3.0 2.2	29.0 34.0	58000 77000	3700 3750		5500 8500	2 5.5	14C5
1407	Sharp-Cutoff Pentode	B5	н	12.6	0.15	Class A Amplifier			F	or other o	haracter	istics, refer	to Type 6	SJ7.			14C7
14E6	Duplex-Diode Triode	B6	н	12.6	0.15	Triode Unit as Class A Amplifier			F	or other o	haracter	istics, refer	to Type 6	SR7.			14E6
14E7	Twin-Diode- Remote-Cutoff Pentode	85	н	12.6	0.15	Pentode Unit as Class A Amplifier	100 250	- 1 3	100 100	2.7 1.6	10.0 7.5	150000 700000	1600 1300				14E7
14F7	Twin-Triode Amplifier	B5	н	12.6	0.15	Each Unit as Class A Amplifier					haracter	istics, refer	to Type 6	SL7-GT.			14F7
14F8	Medium-Mu Twin Triode	8 0b	Н	12.6	0.15	Each Unit as Class A Amplifier	250		de-Bias R 00 ohms	es.,	6.0		3300	48			14F8
14H7	Remote-Cutoff Pentode	85	н	12.6	0.15	Class A Amplifier			F	or other o	haracter	istics, refer	to Type 7	H7.			14H7
1437	Triode-Heptode Converter	85	н	12.6	0.15	Converter			F	or other o	haracter	istics, refer	to Type 7.	J7.			14J7
14N7	Twin-Triode Amplifier	C2a	Н	12.6	0.3	Each Unit as Class A Amplifier			F	or other o	haracter	istics, refer	to Type 6	SN7-GT.			14N7
14Q7	Pentagrid Converter▲	85	н	12.6	0.15	Converter			F	or other o	haracter	istics, refer	to Type 6	SA7.			14Q7
14R7	Duplex-Diode Pentode	B5	н	12.6	0.15	Pentode Unit as Class A Amplifier				or other o		istics, refer		R7.			14R7
15	RF Amplifier Pentode	O9	D.C. H	2.0	0.22	Class A Amplifier	67.5 135	- 1.5	67.5 67.5	0.3	1.85 1.85	630000 800000	710 750				15
16AP4	Directly Viewed Kinescope	P	н	6.3	0.6	Picture Reproduction		m	cept for i	ts clear gl	ass face gth of 2	plate, 27-ine 25⁄ ₁₆ ″, this ty	pe is same	as 16AP4	-A	1	16AP4
16AP4-A	Directly Viewed Kinescope	P0	н	6.3	0.6	Picture Reproduction	Deflection Phosphor Size of P Rounded	n: Magne n Angle: 5 r: No. 4 icture with Ends: 11	i3° h	R	equires l Double Ion-T Mag	rap	Grid-No Grid-No 33 (Grid-No megol	Volts, 1400 b. 2 Volts, b. 1 Volts to -77 vo b. 1- Circu hms max.	300 (410 r for Visual Its it Resista	Cutoff,	16AP4-A
16GP4	Directly Viewed Kinescope	L	н	6.3	0.6	Picture Reproduction	Phospho Size of P	n: Magne n Angle: 7	70° h	R	equires l Single- Ion-1 Mag	Ггар	Grid-No Grid-No -33 Grid-No	Volts, 1400 b. 2 Volts, b. 1 Volts, to - 77 vo b. 1Circu hms max.	300 (410 r for Visual its	Cutoff,	16GP4

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

Dight race = Discontinuou type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.

• Grids #3 and #5 are screen. Grid No. 4 is signalinput grid.

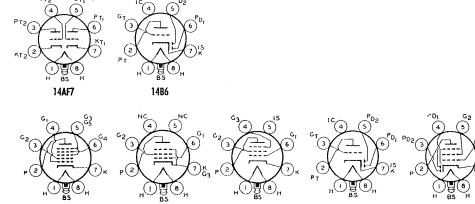
- ▲ Grids #2 and #4 are screen. Grid #3 is signalinput control grid.
 ♦ For two tubes.

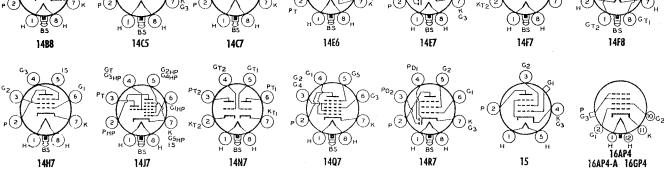
 X Applied through plate resistor of 250000 ohms.

 Either ac or dc may be used on filament or heater,
 except as specifically noted. For use of dc on ac
 filament types, dcrease stated grid volts by ½
 (approx.) of filament voltage.

 Maximum.

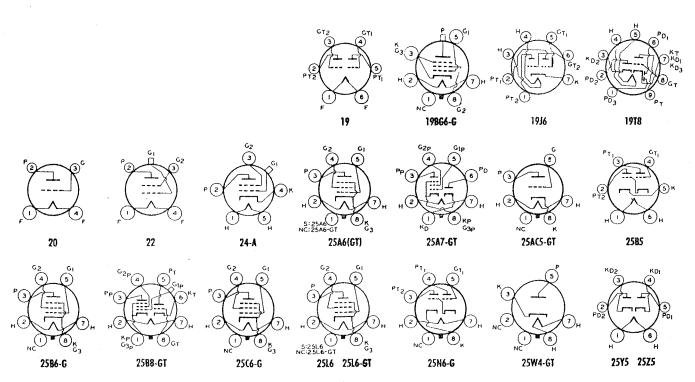
 Value is for both units operating at the specified
 conditions.





Туре	Name	Tube Di- men- sions		thode nd Rat Vals		Use Yalues to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Vals	Grid Bias 52 Valts	Screen Sup- ply Valts	Screen Cur- rent Ma	Plate Cur- rent Ma	AC Plate Resis- tance Ohms	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Power Output Ohms	Power Out- put	Туре
19	Twin-Triode Amplifier	D5	D.C.	2.0	0.26	Amplifier		· · · · · · · · · · · · · · · · · · ·	Fo	r other ch	aracteri	stics, refer t	o Type 1J	6-G.	1	<u></u>	19
19BG6-G	Beam Power Amplifier	F1	н	18.9	0.3	Horizontal Deflec- tion Amplifier in TV Equipment		Plate Vol Plate Cu	rrent, 100					itive-Pulse sipation, 2		lts, 6000	19 B G6-G
1 9J6	Medium-Mu Twin Triode	B0	н	18.9	0.15	Each Unit as Class A Amplifier	100		de-Bias R 0∦ ohms	es.,	8.5	7100	5300	38			19)6
19T8	Triple-Diode High-Mu Triode	8 0a	н	18.9	0.15	Triode Unit as Class A Amplifier			Fo	r other cl	naracteri	stics, refer t	о Туре 6Т	`8.			19T8
20	Power Amplifier Triode	D1	D.C. F	3.3	0.132	Class A Amplifier	90 135	-16.5 -22.5			3.0 6.5	8000 6300	415 525	3.3	9600 6500	0.045 0.110	20
22	RF Amplifier Tetrode	E1	D,C. F	3.3	0.132	Screen-Grid RF Amplifier	135 135	- 1.5 1.5	45 67.5	0.6° 1.3°	1.7 3.7	725000 325000	375 500				22
24-A	RF Amplifier	Ef	н	2.5	1.75	Screen-Grid RF Amplifier	180 250	- 3.0 - 3.0	90 90	1.7° 1.7°	4.0 4.0	400000 600000	1000 1050				24-A
****	Tetrode		"	4.5	1.73	Bias Detector	250⊯	- 5.0 approx.	20 to 45	_	P	ate current	to be adju with no		l milliam	pere	27-7
25A6	Power Amplifier Pentode	C2	н	25.0	0.3	Class A Amplifier	95 160	-15.0 -18.0	95 120 ⁷	4.0 6.5	20.0 33.0	45000 42000	2000 2375		4500 5000	0.9	25A6
25A6-GT	Power Amplifier Pentode	C3	н	25.0	0.3	Class A Amplifier			Fo	r other ch	aracteri	stics, refer t	Type 25	A6.			25A6-GT
25A7-GT	Rectifier	C3	н	25.0	0.3	Pentode Unit as Class A Amplifier	100	-15.0	100	4.0	20.5	50000	1800		4500	0.77	25A7-GT
25A/-G1	Pentode	63	"	23.0	0.3	Half-W# 4e Rectifier		C Plate Vo ak Inverse				D-C Output Peak Plate I			tal Effect ice, 15 oh		23K/=G1
	High-Mu					Class B Amplifier	180	0			4.0			I	4800	6.0	
25AC5-GT	Power Amplifier Triode	C3	н	25.0	0.3	Dynamic-Coupled Amp. With Type 6AE5-GT Driver	110	Average	Plate Cu	rrent of I	Driver =	-GT develo 7 milliamp T = 45 mil	cres.	uit.	2000	2.0	25AC5-GT
25B5	Direct-Coupled Power Amplifier	D94	н	25.0	0.3	Amplifier			Fo	r other ch	aracteri	stics, refer t	o Type 25	N6-G.			25 B 5
25B6-G	Power Amplifier Pentode	D10	н	25.0	0.3	Class A Amplifier	105 200	-16.0 -23.0	105 135	2.0 1.8	48.0 62.0	15500 18000	4800 5000		1700 2500	7.1	25B6-G
25B8-GT	Triode-	C3	н	25.0	0.15	Triode Unit as Class A Amplifier	100	- 1.0			0.6	75000	1500	112		->	25B8-GT
2320-01	Pentode			23.0	0.13	Pentode Unit as Class A Amplifier	100	- 3.0	100	2.0	7.6	185000	2000			_	2356-01
25C6-G	Beam Power Amplifier	D10	н	25.0	0.3	Class A Amplifier			Fo	r other ch		stics, refer t		6-G.			25C6-G
25 1 .6	Beam Power Amplifier	C2	н	25.0	0.3	Amplifier	110 200	- 7.5 - 8.0	110 110	4.0 2.0	49.0 50.0	13000 30000	9000 9500		2000 3000	2.1 4.3	25L6
25L6-GT	Beam Power Amplifier	C3	н	25.0	0.3	Amplifier			Fo	r other ch	aracteri	stics, refer t	o Type 501	L6-GT.			25L6-GT
25N6-G	Direct-Coupled Power Amplifier	Ds	н	25.0	0.3	Class A Amplifier						., 46; Load, ignal Volts (a., 5.8.	3.8	25N6-G
25W4-GT	Half-Wave Rectifier	C2b	н	25.0	0.3							ics, refer to				25W4-GT	
25 Y 5	Rectifier- Doubler	D5	н	25.0	0.3	Half-Wave Rectifier		C Volts per C Output				. Total Effe ohms.	ctive Plate	-Supply In	npedance	per Plate	25 Y 5
25 Z 5	Rectifier- Doubler	D6	н	25.0	0.3	Rectifier- Doubler			Fo	other ra	tings, re	fer to Type	25 Z 6.				25 Z 5

For footnotes, see preceding page



25Z6 to 35Z5-GT

Туре	Name	Tube Di- men- sions		thode nd Ra Vols		Use Yalues to right give operating conditions and characteristics for indicated typical use	Plate Sup- ply Volts	Grid Bias ■ Volts	Screen Sup- ply Yolts	Screen Cur- rent Ma	Plate Cur- rent	AC Plate Resis- tance Ohms	Trans- conduc- tance (Grid-plate)	Amplifi- cation Factor	Load for Stated Power Output Ohms	Power Out- put Watts	Туре
25Z6 25Z6-GT	Vacuum Rectifier- Doublers	C2 C3	н	25.0	0.3	Voltage Doubler Half-Wave Rectifier	Max. A- Max. D- Max. A-	C Volts per C Output I C Volts per C Output I	Plate (R Ma., 75 Plate (RI	MS), 117 MS), 235	Min. Wav Min. T	Total Eff e, 30 ohms; otal Effect. S ns; at 150 v	ective Pla Full-Wave Supply Imp	e, 15 ohms. ped. per Pla	Impedar	nce: Half-	25Z6 25Z6-GT
26	Amplifier Triode	D12	F	1.5	1.05	Class A Amplifier	7 90 180	- 7.0 -14.5	Ma. per P	ate, /5	2.9 6.2	8900 7300	935 1150	8.3 8.3		100 ohms.	26
27	Detector * Amplifier Triode	D5	н	2.5	1.75	Class A Amplifier Bias Detector	135 250 250	- 9.0 -21.0 {-30.0} approx.}			4.5 5.2	9000 9250 ate current	1000 975	9.0 9.0 sted to 0.1	2 milliam	pere	27
30	Medium-Mu Triode	D5	D.C.	2.0	0.06	Amplifier		[(approx.)	Fo	other ch	naracteri	stics, refer t					30
31	Power Amplifier Triode	D5	D.C.	2.0	0.13	Class A Amplifier	135 180	-22.5 -30.0			8.0	4100 3600	925 1050	3.8	7000 5700	0.185 0.375	31
32	RF Amplifier Tetrode	E1	D.C.	2.0	0.06	Screen-Grid RF Amplifier Bias Detector	135 180	- 3.0 - 3.0 \(- 6.0\)	67.5 67.5	0.4	1.7	950000 1.0+§	640 650				32
32L7-GT	Rectifier-Beam Power Amplifier	С3	н	32.5	0.3	Amplifier Unit as Class A Amplifier Half-Wave Rectifier	90 90	approx. - 5.0 - 7.0 Ma	90 90 / ximum A	3.0 2.0 C Plate V	38.0 27.0 Voltage	15000 17000	6000 4800	signal.	2600 2600 MS	0.8	32L7-GT
33	Power Amplifier Pentode	D12	D.C.	2.0	0.26	Class A Amplifier	180	-18.0	180	5.0	22.0	55000	1700	50 Milliam	6000	1.5	33
34	Supercontrol RF Amplifier Pentode	E1	D.C. F	2.0	0.06	Screen-Grid RF Amplifier	135 180	{- 3.0} min.}	67.5 67.5	1.0	2.8 2.8	600000 1.0§	600 620				34
35	Supercontrol RF Amplifier Tetrode	E1	н	2.5	1.75	Screen-Grid RF Amplifier	180 250	{- 3.0} min.}	90 90	2.5.	6.3	300000 400000	1020 1050				35
35A5	Beam Power Amplifier	C2a	н	35.0	0.15	Single-Tube Class A Amplifier			For	other ch	aracteris	tics, refer to	Type 35I	L6-GT.	<u> </u>		35A5
35B5	Beam Power Amplifier	B3	н	35.0	0.15	Class A Amplifier			For	other ch	aracteris	tics, refer to	Type 350	 CS.		¥	35 B 5
35C5	Beam Power Amplifier	B3	н	35.0	0.15	Class A Amplifier	110	- 7.5	110	3.0	40.0	13000	5800		2500	1.5	35C5
35L6-GT	Beam Power Amplifier	C3	н	35.0	0.15	Single-Tube Class A Amplifier	110 200	- 7.5 - 8.0	110 125	3.0	40.0 43.0	14000 34000	5800 6100		2500 5000	1.5	35L6-GT
35W4	Half-Wave Rectifier Heater Tap for Pilot	В3	н	35.0	0.15	With Capacitive- Input Filter	Max Max	A-C Plate D-C Outp	ut Ma.: V	IS), 117 Vith Pilot Vithout P	and No	otal Effect. Shunt Res.	Plate-Su , 60; With	ipply Impe Pilot and	dance, 15 Shunt Re	ohms s., 90;	35W4
35Y4	Half-Wave Rectifier	C2a	н	35.0	0.15	With Capacitive- Input Filter			F	or other c	haracter	istics, refer	to Type 35	5W4.			35Y4
35 Z 3	Half-Wave Rectifier	C2a	н	35.0	0.15	With Capacitive- Input Filter						er to Type					35 Z 3
35Z4-GT	Half-Wave Rectifier	C3	н	35.0	0.15	With Capacitive- Input Filter	Max. D-	C Piate Vo C Output 1	Ma., 100		volts	Total Effect, 15 ohms; a	at 235 volt	s, 100 ohm	s.	•	35 Z 4-GT
35 Z 5-GT	Half-Wave Rectifier Heater Tap for Pilot	СЗ	н	35.0	0.15	With Capacitive- Input Filter	ohms; a		, 100 oh	ns. Max	c. D-C (ral Effect. P Output Ma 100.					35 Z 5-GT

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 23.

★ For Grid-leak Detection—plate volts 45, grid return to' + filament or to cathode.

† Power output is for two tubes at stated plate-to-plate load.

Grid & 2 tied to plate

- Grid # 2 tied to plate.
- ▲ For two tubes

- § Megohms.

 Note 2: Subscript 2 on class of amplifier service
 (as AB₃) indicates that grid current flows
 during some part of input cycle.

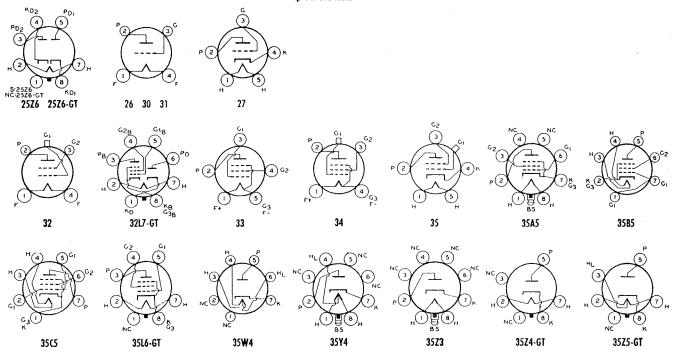
 ** For grid of following tube.

 ** Applied through plate resistor of 250000 ohms.

 Beithered or de may be used on filament or heater,
 except as specifically noted. For use of de on ac
 filament types, decrease stated grid volts by ½
 (approx.) of filament voltage.

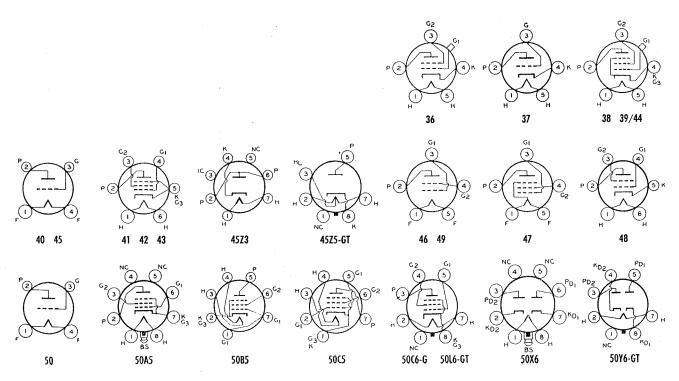
 ** Applied through plate resistor of 100000 ohms.
- Applied through plate resistor of 100000 ohms. • Grids \$1 and \$2 tied together.
 • Panel lamp section is between pins 2 and 2
 • Maximum

Maximum.



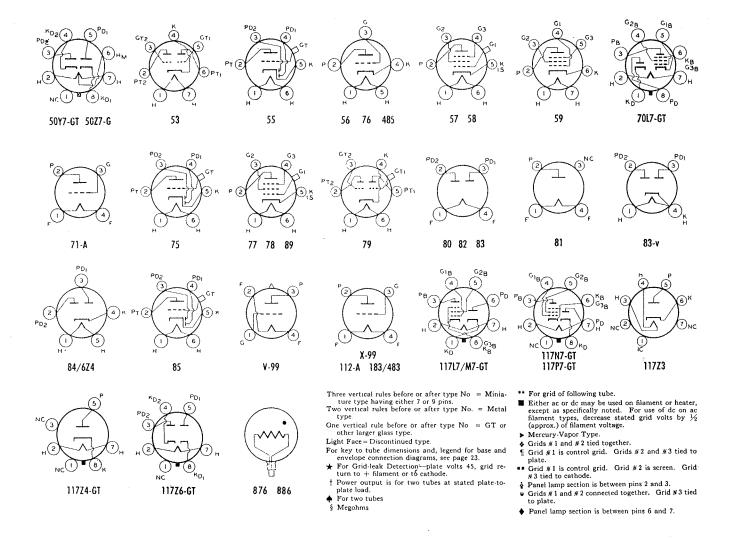
Туре	Name	Tube Di- men-		hode 1	, .	Use Yalues to right give operating conditions and characteristics for	Plate Sup- ply	Grid Bias =	Screen Sup-	Screen Cur- rent	Plate Cur- rent	AC Plate Resis- tance	Trans- conduc- tance (Grid-pisto)	Amplifi- cation Factor	Locaci for Stated Power Output	Power Out- put	Туре
1,,,,,	110	sions	C. T.	Volts	Amp.	indicated typical use	Volts	Volts	Volts	Ma	Ma.	Ohms	20d Mary		Ohms	Watts	.,,,,
36	RF Amplifier Tetrode	De	н	6.3	0.3	Screen-Grid RF Amplifier	100 250 100	- 1.5 - 3.0 - 5.0	55 90 55	1.7*	1.8 3.2	550000 550000 -bias values	850 1080				36
	retrode					Bias Detector	250	- 8.0	90		L	adjusted to	0.1 millia	mpere witl			
	Detector#					Class A Amplifier	90 250	- 6.0 18.0	—		2.5 7.5	11500 8400	800 1100	9.2 9.2			
37	Amplifier Triode	D5	Н	6.3	0.3	Bias Detector	90 250	10.0 28.0				-bias values adjusted to					37
38	Power Amplifier Pentode	D9	н	6.3	0.3	Class A Amplifier	100 250	- 9.0 -25.0	100 250	1.2	7.0 22.0	140000 100000	875 1200		15000 10000	0.27 2.50	38
39/44	Remote-Cutoff Pentode	D9	н	6.3	0.3	Class A Amplifier	90 250	$\left\{ \begin{array}{c} -3.0\\ \text{min.} \end{array} \right\}$	90 90	1.6 1.4	5.6 5.8	400000 1.0§	1000 1050				39/44
40	Medium-Mu Triode	D12	D.C. F	5.0	0.25	Class A Amplifier	135¥ 180¥	- 1.5 - 3.0		***********	0.2 0.2	150000 150000	200 200	30 30			40
41	Power Amplifier Pentode	D5	н	6.3	0.4	Amplifier			F	or other c	haracteri	stics, refer t	o Type 6K	K6-GT.			41
42	Power Amplifier Pentode	D12	н	6.3	0.7	Amplifier			Fo	or other c	haracteri	stics, refer t	о Туре 6Р	6-G.			42
43	Power Amplifier Pentode	D12	н	25.0	0.3	Amplifier			F	or other cl		stics, refer t		A6.			43
45	Power Amplifier	D12	F	2.5	1.5	Class A Amplifier	180 275	-31.5 -56.0			31.0 36.0	1650 1700	2125 2050	3.5 3.5	2700 4600	0.82 2.00	45
	Triode		·			Push-Pull Class AB ₂ Amplifier	275 275		as, 775 of volts, fixed		36.0 28.0	_			5060 3200	12.0† 18.0†	,,,
45Z3	Half-Wave Rectifier	BO	н	45.0	0.075	Half-Wave Rectifier		A-C Plate Peak Inve				D-C Outpu Peak Plate			Γotal Effe y Imped.,		45 Z 3
45Z5-GT	Half-Wave Rectifier Heater Tap for Pilot	СЗ	н	45.0	0.15	With Capacitive- Input Filter			F	or other r	atings, re	fer to Type	35Z5-GT.				45Z5-GT
46	Dual-Grid	E3	F	2.5	1.75	Class A Amplifier	250 300	-33.0 0			22.0	2380	2350	5.6	6400 5200	1.25 16.0†	46
	Power Amplifier Power Amplifier					Class B Amplifier◆	400	0			8.0 12.0				5800	20.0	
47	Pentode	E3	F	2.5	1.75	Class A Amplifier	250	-16.5	250	6.0	31.0	60000	2500		7000	2.7	47
48	Power Amplifier Tetrode	E3	D.C.	30.0	0.4	Tetrode Class A Amplifier Tetrode Push-Pull	96 125	19.0 20.0	96 100	9.0 9.5	52.0 56.0	=	3800 3900		1500 1500	2.0	48
						Class A Amplifier	125	-20.0	100		100.04			·	3000	5.0†	
49	Dual-Grid Power Amplifier	D12	D.C. F	2.0	0.12	Class A Amplifier □ Class B Amplifier◆	135 180	-20.0			6.0 4.0¢	4175	1125	4.7	11000 12000	0.17 3.5†	49
50	Power Amplifier Triode	Fla	F	7.5	1.25	Class A Amplifier	300 400 450	-54.0 -70.0 -84.0			35.0 55.0 55.0	2000 1800 1800	1900 2100 2100	3.8 3.8 3.8	4600 3670 4350	1.6 3.4 4.6	50
50A5	Beam Power Amplifier	C2a	н	50.0	0.15	Class A Amplifier	130		F	or other		istics, refer			1000		50A5
50B5	Beam Power Amplifier	83	н	50.0	0.15	Class A Amplifier			F	or other	character	istics, refer	to Type 5	0C5.			50B5
50C5	Beam Power Amplifier	B3	н	50.0	0.15	Class A Amplifier	110	- 7.5	110	4.0	49.0	10000	7500		2500	1.9	50C5
50C6-G	Beam Power Amplifier	D10	н	50.0	0.15	Single-Tube Class A Amplifier	135 200	13.5 14.0	135 135	3.5 2.2	58.0 61.0	9300 18300	7000 7100		2000 2600	3.6 6.0	50C6-G
50L6-GT	Beam Power Amplifier	C3	н	50.0	0.15	Single-Tube Class A Amplifier	110 200	- 7.5 0	110 125	4.0 2.2	49.0 46.0	13000 28000	8000 8000		2000 4000	2.1 3.8	50L6-GT
50X6	Rectifier- Doubler	C2a	н	50.0	0.15	Rectifier- Doubler Half-Wave	Max. D Max. A-	C Output C Volts pe	Ma., 75 r Plate (F	RMS), 23:	Half-W	otal Effecti /ave, 30 oh: otal Effect.	ns; Full-W Supply Im	ave, 15 of ped. per P	ims. late: Up to		50X6
FOVE OT	Rectifier-	02		50.0	0.15	Rectifier Rectifier-	Max. D	C Output				s: at 150 vo		ns; at 235	volts, 100	ohms.	50Y6-GT
50Y6-GT	Doubler	C3	H	50.0	0.15	Doubler			F	or other r	atings, re	fer to Type	45Z0.				30 1 0-G I

For footnotes, see preceding page



50Y7-GT to 886

Туре	Name	Tube Di- men-	C	athode and Ro		Use Yalves to right give operating conditions and characteristics for	Plate Sup- ply	Grid Bias 🗷	Screen Sup- ply	Screen Cur- rent	Plate Cur- rent	AC Plate Resis- tance	tance	Amplifi cation	Power	Power Out-	
		sions	C. T.		Arsıp.	indicated typical use	Volts	Volts	Volts	Ma	Ma.	Ohms	(Grid-plata)	Factor	tuqtuO 2mdO	Put Walls	Туре
50Y7-GT	Rectifier- Doubler Heater Tap for	C2b	н	50.0	0.15	Voltage Doubler Half-Wave	Max.	A-C Volts D-C Outpu A-C Volts 1	er Plate	(RMS), 2.	Plat 35 Mir	n. Total I te, 15 ohm: n. Total Ef	3		ly Impeda	ince per	59 Y7-0
****	Heater Tap for Pilot					Rectifier	Max.	D-C Outpi	it ma. per	Plate, 65	to 1	17 volts, 1	5 ohms; at	150 volt	s, 40 ohms	at 235	301,-0
50 Z 7-G	Rectifier- Doubler Heater Tap for Pilot 🌢	D3	н	50.0	0.15	Voltage Doubler Half-Wave	Max. D-	C Volts pe C Output C Volts pe	Ma., 65 Plate (R	MS) 235	Min. 15	Total Efforms. Total Effe	ective Plat				50Z7-C
53	Twin-Triode	D12	н	2.5	2.0	Rectifier	Max. D-	C Output		~	Up to	o 117 volts	, 15 ohms;	at 235 vo	lts, 100 oh	ms.	-
55	Amplifier Duplex-Diode	·				Amplifier Triode Unit as						tics, refer t					53
56	Triode Medium-Mu	D9	Н	2.5	1.0	Amplifier Amplifier			Fo	r other ch	aracteris	tics, refer t	o Type 85.		***************************************		55
	Triode★ Sharp-Cutoff	D5	н	2.5	1.0	Detector Amplifier	ļ		Fo	r other ch	aracteris	tics, refer t	o Type 76.				56
57	Pentode Remote-Cutoff	D13	Н	2.5	1.0	Defector			Fo	r other ch	aracteris	tics, refer t	o Type 6J	7.			57
58	Pentode	D13	н	2.5	1.0	Amplifier Mixer			Fo	r other ch	aracteris	tics, refer t	o Type 6U	7-G.			58
						Triode¶ Class A Amplifier	250	-28.0			26.0	2300	2600	6.0	5000	1.25	
59	Triple-Grid Power Amplifier	E3	н	2.5	2.0	Pentode** Class A Amplifier	250	-18.0	250	9.0	35.0	55000	2500		6000	3.0	59
						Triode & Class B Amplifier	300 400	0			20.04				4600 6000	15.0†	1
70L7-GT	Rectifier-Beam					Amplifier Unit as Class A Amplifier	110	- 7.5	110	3.0	40.0	15000	7500		2000	20.0† 1.8	
/UL/~G1	Power Amplifier	C10	Н	70.0	0.15	Half-Wave Rectifier	Max. A-	C Plate Vo	ts (RMS), 117	Max.	D-C Outpu	t Ma., 70	Min.	Total Effe	ect. Plate-	70L7-G
71-A	Power Amplifier	D12	F	5.0	0.25	Class A Amplifier	90	ak Inverse	Volts, 350)	10.0	Peak Plate 2170	Ma., 420	Supp 3.0	July Imped.	, 15 ohms 0.125	74 4
75	Triode Duplex-Diode	D9	н	6.3	0.3	Amplifier	180	-40.5			20.0	1750	1700	3.0	4800	0.790	71-A
	High-Mu Triode Detector		ļ.,			Class A Amplifier	250	-13.5	For	r other ch	5.0	9500	0 Type 6S	Q7. 13.8	, ,	1	75
76	Amplifier Triode *	D5	н	6.3	0.3	Bias Detector	250	{ - 20.0} approx.}				te current		ted to 0.	2 milliamp	ere	76
	Triple-Grid					Class A Amplifier	100	- 1.5	60	0.4	1.7	600000	1100	signai.	T		
77	Detector Amplifier	D9	H	6.3	0.3	Bias Detector	250 250	- 3.0 - 1.95	100 50	0.5 Cathode		1.0+§	1250 Plate I	Resistor, 2	250000 ohm	19.	77
78	Remote-Cutoff	D9	н	6.3	0.3	Amplifier				0.65		ics, refer t			250000 oh	ims.	70
79	Pentode Twin-Triode	D9				Mixer	180	0	101	other ca		Output is			7000	5.5	78
80	Amplifier Full-Wave		н	6.3	0.6	Class B Amplifier	250	0			s ta	ted plate-t	o-plate loa		14000	8.0	79
	Rectifier Half-Wave	D12	F	5.0	2.0	With Capacitive-		Ma- A		other rat		er to Type					80
81	Rectifier	Fia	F	7.5	1.25	Input Filter	100	Max. Pe	ak Invers	e Volts, 2	000		Max. Pe	-C Outpu ak Plate	Ma., 500		81
82	Full-Wave> Rectifier	D12	F	2.5	3.0	With Capacitive- Input Filter With Inductive- Input Filter	Max. Pea Max. A-C	k Inverse Volts per k Inverse Volts per k Inverse V	Volts, 155 Plate (R)	0 MS), 550	Max. I	D-C Outpu Peak Plate D-C Outpu Peak Plate	Ma., 600 t Ma., 115	Imped. Mir	otal Effect per Plate, n. Value of hoke, 6 her	50 ohms.	82
02	Full-Wave≯					With Capacitive- Input Filter	Max. A-C	Volts per k Inverse	Plate (R)	MS), 450	Max. I	O-C Outpur Peak Plate	Ma., 225	Min, T	otal Effect	t. Supply	
83	Rectifier	E3	F	5.0	3.0	With Inductive- Input Filter	Max. A-C	Volts per	Plate (RI	MS), 550	Max. I	O-C Output Peak Plate	Ma., 225	Min	. Value of	Input	83
83-v	Full-Wave Rectifier	D12	н	5.0	2.0	Input I iica	Max. I ca	E silverse				r to Type		<u></u>	hoke, 3 her	ines	83-v
						With Capacitive-		Volts per			Max. I	O-C Output	Ma., 60	Min. T	otal Effect		
	E-0 W					Input Filter	Max. Pea	k Inverse V			Max. I	Peak Plate	Ma., 60		ner Plate i	t. Supply	
84/6224	Full-Wave Rectifier	D5	н	6.3	0.5	With Inductive-	Max. A-C	Volts per	Plate (RA						. Value of	150 ohms. Input	84/6 Z 4
-	Rectifier Duplex-Diode					With Inductive- Input Filter Triode Unit as	Max. A-C Max. Pea	Volta per k Inverse V -10.5	Plate (RA folts, 1250)	3.7	Peak Plate		Ch	. Value of oke, 10 he	150 ohms. Input nries	····
84/6 Z 4 85	Rectifier	D5 D9	н	6.3	0.5	With Inductive- Input Filter Triode Unit as Class A Amplifier	Max. A-C Max. Pea 135 250	+ Inverse V - 10.5 - 20.0	Plate (RA folts, 1250) — [3.7 8.0	11000 7500	750 1100	8.3 8.3	Value of oke, 10 he 25000 20000	150 ohms. Input nries 0.075 0.350	84/6 Z 4 85
85	Rectifier Duplex-Diode Triode	D9	н	6.3	0.3	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode¶ Class A Amplifier	Max. A-C Max. Pea 135 250 160 250	k Inverse V -10.5 -20.0 -20.0 -31.0	7olts, 1250) 	3.7 8.0 17.0 32.0	11000 7500 3300 2600	750 1100 1425 1800	8.3	Value of oke, 10 he 25000 20000 7000 5500	150 ohms. Input nries 0.075 0.350 0.30 0.90	84/6 Z 4 85
-	Rectifier Duplex-Diode					With Inductive— Input Filter Triode Unit as Class A Amplifier As Triode¶ Class A Amplifier As Pentodess Class A Amplifier	Max. A-C Max. Pea 135 250 160 250	k Inverse V -10.5 -20.0 -20.0	Plate (RM folts, 1250	1.6	3.7 8.0 17.0	11000 7500 3300	750 1100 1425	8.3 8.3 4.7	. Value of oke, 10 he 25000 20000 7000 5500 10700 6750	150 ohms. Input nries 0.075 0.350 0.30 0.90 0.33 3.40	
85 89	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier	D9	н	6.3	0.3	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode¶ Class A Amplifier As Pentode==	Max. A-C Max. Pea 135 250 160 250	-10.5 -20.0 -20.0 -31.0 -10.0	7olts, 1250	1.6	3.7 8.0 17.0 32.0 9.5	11000 7500 3300 2600 104000	750 1100 1425 1800	8.3 8.3 4.7	. Value of oke, 10 he 25000 20000 7000 5500 10700	150 ohms. Input nries 0.075 0.350 0.30 0.90	85
85 89 V-99	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector ** Amplifier	D9	н	6.3	0.3	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode¶ Class A Amplifier As Pentodess Class A Amplifier As Triodes	Max. A-C Max. Pea 135 250 160 250 100 250	+ Inverse \ -10.5 -20.0 -20.0 -31.0 -10.0 -25.0	7olts, 1250	1.6	3.7 8.0 17.0 32.0 9.5 32.0	11000 7500 3300 2600 104000	750 1100 1425 1800	8.3 8.3 4.7	. Value of oke, 10 he 25000 20000 7000 5500 10700 6750 13600	150 ohms. Input nries 0.075 0.350 0.30 0.90 0.33 3.40 2.50†	85 89 V-99
85 89 V-99 X-99	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector * Amplifier Triodes Detector * Detector *	D9 D9 C4 D1	H D.C.	6.3	0.3	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode¶ Class A Amplifier As Pentodess Class A Amplifier Class B Amplifier Class A Amplifier	Max. A-C Max. Pea 135 250 160 250 100 250 180	Line New York Ne	7olts, 1250	1.6	3.7 8.0 17.0 32.0 9.5 32.0 6.0 \$\displaystyle{\phi}\$	11000 7500 3300 2600 104000 70000	750 1100 1425 1800 1200 1800	Che 8.3 8.3 4.7 4.7	. Value of oke, 10 he 25000 20000 7000 5500 10700 6750 13600	150 ohms. Input nries 0.075 0.350 0.30 0.90 0.33 3.40 2.50†	85
85 89 V-99	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes	D9	н	6.3	0.3	With Inductive-Input Filter Triode Unit as Class A Amplifier As Triode¶ Class A Amplifier As Pentodess Class A Amplifier As Triodes Class B Amplifier	Max. A-C Max. Peal 135 250 160 250 100 250 180 90	-10.5 -20.0 -20.0 -31.0 -10.0 -25.0	7olts, 1250	1.6	3.7 8.0 17.0 32.0 9.5 32.0 6.0	11000 7500 3300 2600 104000 70000	750 1100 1425 1800 1200 1800	8.3 8.3 4.7 4.7	. Value of oke, 10 he 25000 20000 7000 5500 10700 6750 13600	150 ohms. Input nries 0.075 0.350 0.30 0.90 0.33 3.40 2.50†	85 89 V-99
85 89 V-99 X-99 112-A	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam	D9 D9 C4 D1 D12	H D.C. F	6.3 6.3 3.3	0.3 0.4 0.063	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode Class A Amplifier As Pentodes Class A Amplifier As Amplifier Class A Amplifier Class A Amplifier Class A Amplifier	Max. A-C Max. Peal 135 250 160 250 100 250 180 90	Linverse 10.5 -10.5 -20.0 -20.0 -31.0 -10.0 -25.0 0 -4.5 -4.5 -4.5	7olts, 1250	1.6 5.0	3.7 8.0 17.0 32.0 9.5 32.0 6.04 2.5	11000 7500 3300 2600 104000 70000 15500	750 1100 1425 1800 1200 1800 425	Che 8.3 8.3 4.7 4.7	. Value of oke, 10 he 25000 20000 7000 5500 10700 6750 13600	150 ohms. Input nries 0.075 0.350 0.30 0.90 0.33 3.40 2.50†	85 89 V-99 X-99
85 89 V-99 X-99	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triodes	D9 D9 C4 D1	H D.C.	6.3	0.3	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode § Class A Amplifier As Pentodes Class A Amplifier As Triodes Class B Amplifier Class A Amplifier Class A Amplifier Class A Amplifier Liss A Amplifier Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave	Max. A-C Max. Peal 135 135 160 250 160 250 180 90 180 105 Max. A-C	k Inverse V -10.5 -20.0 -20.0 -31.0 -10.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volt	100 250	1.6 5.0	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7	11000 7500 3300 2600 104000 70000 	750 1100 1425 1800 1200 1800 425 1575 1800 5300	Ch. 8.3 8.3 4.7 4.7 4.7 6.6 6.6 8.5 8.5 8.5	Value of oke, 10 he: 25000 20000 7000 5500 10700 6750 13600 9400 4000 0tal Effect	150 chms. Input mries 0.075 0.350 0.30 0.90 0.33 3.40 2.50 0.85	85 89 V-99 X-99
85 89 V-99 X-99 112-A 117L7/ M7-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier	D9 C4 D1 D12 C5b	H D.C. F D.C. F	6.3 6.3 3.3 5.0	0.3 0.4 0.063	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode¶ Class A Amplifier As Pentode® Class A Amplifier As Triode® Class B Amplifier Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Half-Wave Amplifier Unit as	Max. A-C Max. Peal 135 250 160 250 100 250 180 90 180 105 Max. A-C Max. Peal	k Inverse \ -10.5 -10.5 -20.0 -20.0 -31.0 -10.0 -25.0 0 -4.5 -4.5 -13.5	100 250 105 s (RMS), olts, 350	1.6 5.0 4.0 117	3.7 8.0 17.0 32.0 9.5 32.0 6.0 2.5 5.0 7.7 43.0 Max. D.	11000 7500 3300 2600 104000 70000 15500 5400 4700 17000 C Output eak Plate A	750 1100 1425 1300 1200 1800 425 1575 1800 5300 Ma., 75 fa., 450	Ch. 8.3 8.3 4.7 4.7 4.7 6.6 6.6 8.5 8.5 8.5	Value of oke in the interest of the interest o	150 chms.	85 89 V-99 X-99 112-A
85 89 V-99 X-99 112-A 117L7/ M7-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam	D9 D9 C4 D1 D12	H D.C. F	6.3 6.3 3.3	0.3 0.4 0.063	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode¶ Class A Amplifier As Pentode® Class A Amplifier As Triode® Class B Amplifier Class A Amplifier Class A Amplifier Class A Amplifier Unit as Class A Amplifier Unit as Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Half-Wave Half-Wave Half-Wave	Max. A-C Max. Peal 135 250 160 250 100 250 180 90 180 105 Max. A-C Max. Peal	k Inverse V -10.5 -20.0 -20.0 -31.0 -10.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volt k Inverse V - 6.0	100 250 105 s (RMS), olts, 350	1.6 5.0 	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. Po	11000 7500 7500 3300 2600 104000 70000 15500 5400 4700 17000 16000 16000	750 1100 1425 1800 1200 1800 425 1575 1800 5300 Ma., 75 7000 Ma., 75	6.6 8.5 8.5 Min. T Supply	Value of oke, 10 he: 25000 20000 7000 5500 10700 6750 13600 9400 4000 0tal Effect	150 chms. Input Input O.075 O.350 O.30 O.90 O.33 3.40 2.50† 3.50† O.85 Plate- 5 ohms.	85 89 V-99 X-99 112-A 117L7/ M7-GT
85 89 V-99 X-99 112-A 117L7/ M7-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier	D9 C4 D1 D12 C5b	H D.C. F D.C. F	6.3 6.3 3.3 5.0	0.3 0.4 0.063 0.25	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode Class A Amplifier As Pentodes Class A Amplifier As Triodes Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier Amplifier Unit as	Max. A-C Max. Peal 135 250 160 250 100 250 180 90 180 105 Max. A-C Max. Peal	k Inverse V -10.5 -20.0 -20.0 -31.0 -31.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volt k Inverse V -6.0	100 250 105 s (RMS), olts, 350 s (RMS), olts, 350	1.6 5.0 	3.7 8.0 17.0 32.0 9.5 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. P. 651.0 Max. P.	11000 7500 7500 3300 2600 104000 70000 15500 15500 5400 4700 17000 17000 16000 16000	750 1100 1425 1800 1200 1200 1800 425 1575 1800 5300 Ms., 75 fa., 450 Ma., 75 Ma., 450	Ch. 8.3 8.3 4.7 4.7 6.6 8.5 8.5 Min. T Supply Min. T Supply I	Value of oke, 10 he 25000 20000 70000 5500 10700 6750 13600 9400 0018 Effect Imped., 13000 3000 3000 10700 1	150 chms. Input Input Input 0.075 0.350 0.30 0.90 0.33 3.40 2.50† 3.50† 0.85 Plate- 5 ohms. 1.2	85 89 V-99 X-99 112-A
85 89 V-99 X-99 112-A 117L7/ M7-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier	D9 C4 D1 D12 C5b	H D.C. F D.C. F	6.3 6.3 3.3 5.0	0.3 0.4 0.063 0.25	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode Class A Amplifier As Priodes Class A Amplifier As Triodes Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier Amplifier Unit as Class A Amplifier Half-Wave Half-Wave Half-Wave Half-Wave Half-Wave	Max. A-C Max. Peal 135 250 160 250 100 250 180 90 180 105 Max. A-C Max. Peal	k Inverse V -10.5 -20.0 -20.0 -31.0 -10.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volt k Inverse V - 6.0	100 250	1.6 5.0 4.0 117 5.0	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. D Max. P S1.0	11000 7500 3300 2600 1104000 70000 115500 15500 17000 17000 17000 17000 16000 0-C Output teak Plate to	750 1100 1425 1800 1200 1200 1800 425 1575 1800 5300 Ma., 75 fa., 450 7000 Ma., 450 Type 1171	Ch. 8.3 8.3 4.7 4.7 4.7 6.6 6.6 8.5 8.5 8.5 Min. T Supply Min. T Supply I 7/M7-G7	Value of oke, 10 he 25000 20000 70000 5500 10700 6750 13600 9400 0018 Effect Imped., 13000 3000 3000 10700 1	150 chms.	85 89 V-99 X-99 112-A 117L7/ M7-GT
85 89 V-99 X-99 112-A 117L7/ M7-GT 17N7-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier	D9 C4 D1 D12 C5b C5b	H D.C. F D.C. F	6.3 6.3 3.3 5.0 117 117	0.3 0.4 0.063 0.25 0.09 0.09	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode§ Class A Amplifier As Pentodes Class A Amplifier As Triodes Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier	Max. A-C Max. Peal 135 250 160 250 100 250 180 90 180 Max. A-C Max. Peal	k Inverse V -10.5 -20.0 -20.0 -20.0 -31.0 -31.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Voit k Inverse V	100 250 105 105 105 105 105 105 105 105 105 1	1.6 5.0 4.0 117 5.0 117 other chaother ratio	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. P. Max. P. Max. P. Max. P. Max. P. Max. P.	11000 7500 3300 2600 104000 70000 115500 15500 17000	750 1100 1425 1800 1200 1200 1800 425 1575 1800 Ma., 75 Ma., 450 7000 Ma., 75 Ma., 450 Type 1171	Ch. 8.3 8.3 4.7 4.7 4.7 6.6 8.5 8.5 Min. T Supply Min. T Supply I 7//M7-G7	Value of oke, 10 he 25000 20000 70000 5500 10700 6750 13600 9400 4000 4000 4000 10700 6750 10700 6750 10700 6750 10700 107	150 chms.	85 89 V-99 X-99 112-A 117L7/ M7-GT
85 89 V-99 X-99 112-A 117L7/ M7-GT 17N7-GT 17P7-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier	D9 C4 D1 D12 C5b C5b	Н В.С. Р В.С. В Н	6.3 6.3 3.3 5.0 117 117	0.3 0.4 0.063 0.25 0.09 0.09	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode Class A Amplifier As Pentodes Class A Amplifier As Triodes Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier Half-Wave Rectifier Half-Wave Rectifier Half-Class A Amplifier Half-Wave Rectifier	Max. A-C Max. Peal 135 250 160 250 100 250 180 90 180 Max. A-C Max. Peal Max. A-C Max. Peal	k Inverse V -10.5 -20.0 -20.0 -20.0 -31.0 -31.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volte Inverse V Plate Volte Inverse V	100 250 100 250 100 100 250 100 100 100 100 100 100 100 100 100 1	1.6 5.0 4.0 117 5.0 117 other cha	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. P. Max. P. Max. P. Fracteriations, refer	11000 7500 3300 2600 104000 70000 15500 15500 17000 17000 17000 17000 C Output eak Plate become refer to to Type 1 C Output to Type 1	750 1100 1425 1800 1220 1200 1200 1200 1425 1575 1875 1875 1875 1870 7000 Ma., 75 Ma., 450 Type 1171 1712/M7-M3- Ma., 90 Ia., 540	Ch. 8.3 8.3 4.7 4.7 4.7 6.6 8.5 8.5 Min. T. Supply I.7/M7-GT GT. Supply I Otte	Value of oke, 10 he 25000 20000 70000 5500 10700 6750 13600 9400 4000 4000 otal Effect Imped., 11 3000 otal Effect mpedance. F.	150 chms.	85 89 V-99 X-99 112-A 117L7/ M7-GT
85 89 V-99 X-99 112-A 117L7/ M7-GT 17N7-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier	D9 C4 D1 D12 C5b C5b	н В.С. Р В.С. Р Н н	6.3 6.3 3.3 5.0 117 117	0.3 0.4 0.063 0.25 0.09 0.09	With Inductive- Input Filter Triode Unit as Class A Amplifier As Priode Class A Amplifier As Priodes Class A Amplifier As Priodes Class A Amplifier Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier With Capacitive- Input Filter With Capacitive- Input Filter	Max. A-C Max. Peai 135 250 160 250 100 250 180 90 180 105 Max. A-C Max. Peai 100 Max. A-C Max. Peak Max. A-C Max. Peak Max. A-C Max. Peak Max. A-C	k Inverse V -10.5 -20.0 -20.0 -20.0 -31.0 -31.0 -10.0 -25.0 0 -4.5 -13.5 -13.5 -5.2 Plate Voit & Inverse V	100 250 100 s (RMS), olts, 330 s (RMS), olts, 350 s	1.6 5.0 4.0 117 5.0 117 117	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. Pe 651.0 Max. Fe facteriations, perfer Max. Pe Max. Pe	11000 7500 3300 2600 104000 70000 15500 15500 5400 4700 17000	750 1100 1425 1800 1200 1200 1200 1800 425 1575 1800 5300 Ma., 75 Ma., 450 7000 Ma., 75 Ma., 90 Ma., 90 Ma., 90 Ma., 90 Ma., 90 Ma., 90	Ch. S. 3 S. 3 S. 3 S. 3 S. 3 S. 4 S. 7 S. 6 S. 6 S. 5 S. 5 S. 5 Min. Tota S. Supply I S. 7 Min. Tota S. Supply I Min. Tota S. Supply	Value of oke, 10 he 25000 20000 70000 5500 10700 6750 13600 9400 4000 4000 otal Effect Imped., 11 3000 otal Effect Faped., 15 o al Effect.	150 chms.	85 89 V-99 X-99 112-A 117L7/ M7-GT
85 89 V-99 X-99 112-A 117L7/ M7-GT 17N7-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier Half-Wave Rectifier-Beam	D9 C4 D1 D12 C5b C5b	Н В.С. Р В.С. В Н	6.3 6.3 3.3 5.0 117 117	0.3 0.4 0.063 0.25 0.09 0.09	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode Class A Amplifier As Priodes Class A Amplifier As Triodes Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier With Capacitive- Input Filter With Capacitive- Input Filter Voltage Doubler Half-Wave Half-Wave Half-Wave Rectifier	Max. A-C Max. Peal 135 250 160 250 100 250 180 90 180 Max. A-C Max. Peal Max. A-C Max. Peak Max. A-C Max. Peak Max. A-C Max. D-C Max. A-C	k Inverse V -10.5 -20.0 -20.0 -20.0 -31.0 -31.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volte Inverse V Plate Volte Inverse V Volts per I Output M Volts per I	100 250 100 250 100 250 100 250 100 250 100 250 100 250 For [For (RMS), olts, 350 26 (RMS), olts, 350 26 (RMS), olts, 350 26 (RMS), olts, 350 27 250 250 250 250 250 250 250 250 250 250	1.6 5.0 117 5.0 117 117 117 117 117 117 (S), 117 (S), 235	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. P. S1.0 Max. P. Max. P. Max. P. Max. P. Max. D. Max. D.	11000 7500 3300 2600 1104000 70000 15500 15500 17000 17000 17000 17000 C Output eak Plate becas, refer to to Type 1 C Output ak Plate becas Plate ak Plate becas Plate ak Plate we 30 ohn obtal Effectiave, 30 ohn obtal Effettiave, 30 ohn obtal Effettiave, 30 ohn obtal Effettiave, 30 ohn obtal	750 1100 1425 1800 1425 1800 1200 1200 1800 425 1575 1800 5300 Ma., 75 Ma., 450 7000 Ma., 75 Ma., 450 Type 1171 17127/M7- Ma., 90 a., 540 we Plate-S s; Full-W. Supply it II-	Ch. S. 3 S. 3 S. 3 S. 3 S. 3 S. 4 S. 4 S. 7 S. 8 S. 5 S. 8 S. 5 Min. Tots Supply In Mi	Value of oke, 10 he 25000 20000 7 7000 5500 10700 6750 13600 9400 4000 otal Effect Imped., 11 3000 otal Effect Foped, 15 opedance proped, 25 opedance proped, 30 opedance proped of the proper of the	150 chms. 170 chms. 150 chms. 170 chms.	85 89 V-99 X-99 112-A 117L7/ M7-GT 117N7-G 117P7-G 117Z3 117Z4-G
85 89 V-99 X-99 112-A 117L7/ M7-GT 17N7-GT 17P7-GT 17P7-GT 17Z3 17Z4-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier Rectifier-Beam Power Amplifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier Rectifier	D9 C4 D1 D12 C5b C5b C5b C5c	H D.C. F D.C. F H H H	6.3 6.3 3.3 5.0 117 117 117 117	0.3 0.4 0.063 0.25 0.09 0.09 0.09	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode Class A Amplifier As Priodes Class A Amplifier As Triodes Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier With Capacitive- Input Filter With Capacitive- Input Filter Voltage Doubler Half-Wave Rectifier	Max. A-C Max. Peal 135 250 160 250 100 250 180 90 180 105 Max. A-C Max. Peal Max. A-C Max. Peak Max. A-C Max. Peak Max. A-C Max. D-C	k Inverse V -10.5 -20.0 -20.0 -20.0 -31.0 -31.0 -31.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volte inverse V Plate Volte Inverse V Volts per I Output M Volts per I Output M Volts per I Output M	100 250 100 250 100 250 100 250 100 250 100 250 100 250 For [For (RMS), olts, 350 26 (RMS), olts, 350 26 (RMS), olts, 350 26 (RMS), olts, 350 27 250 250 250 250 250 250 250 250 250 250	1.6 5.0 117 5.0 117 117 117 117 117 117 117 117 117 11	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. Pe 651.0 Max. Pe 651.0 Max. Pe Max. Pe	11000 7500 3300 2600 1104000 70000 15500 15500 17000 1	750 1100 1425 1800 1425 1800 1200 1800 425 1575 1800 5300 Ma., 75 4a., 450 7000 Ma., 75 Ma., 450 Type 1171 17L7/M7-4 Ma., 90 Ma., 540	Ch. 8.3 8.3 4.7 4.7 4.7 6.6 8.5 8.5 Min. Tots Supply I 7/M7-G7 GT. Supply In Min. Tots Supply In my I on the my I	Value of oke, 10 he 25000 20000 70000 5500 10700 6750 13600 9400 4000 cotal Effect Imped., 11 3000 otal Effect Faped., 15 of pedance of pedance per ma.	150 chms.	85 89 V-99 X-99 112-A 117L7/ M7-GT 117P7-G
85 89 V-99 X-99 112-A 117L7/ M7-GT 17N7-GT 17P7-GT 117Z3 17Z4-GT 17Z8-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier Half-Wave Rectifier Rectifier Rectifier Doubler	D9 C4 D1 D12 C5b C5b C5b C5c C10 C10 C10 C10 C10 C10 C10 C10 C10 C1	Н В D.G. F D.G. F Н Н	6.3 3.3 5.0 117 117 117 117 117 117 117 1	0.3 0.4 0.063 0.25 0.09 0.09 0.09 0.04 0.04	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode Class A Amplifier As Priodes Class A Amplifier As Triodes Class A Amplifier Class A Amplifier Class A Amplifier Amplifier Unit as Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier With Capacitive- Input Filter With Capacitive- Input Filter Voltage Doubler Half-Wave Half-Wave Half-Wave Rectifier	Max. A-C Max. Peal 135 250 160 250 180 90 180 105 Max. A-C Max. Peal Max. A-C Max. Peal Max. A-C Max. Peal Max. A-C Max. Peal Max. A-C Max. C Max. D Max. A-C Max. C Max. D Max. A-C Max. D Ma	k Inverse V -10.5 -20.0 -20.0 -20.0 -31.0 -31.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volte Inverse V Plate Volte Inverse V Volts per I Output M Volts per I	100 250 100 250 100 250 100 250 100 250 100 250 100 250 For [For (RMS), olts, 350 26 (RMS), olts, 350 26 (RMS), olts, 350 26 (RMS), olts, 350 27 250 250 250 250 250 250 250 250 250 250	1.6 5.0 117 5.0 117 117 117 117 117 117 117 117 117 11	3.7 8.0 17.0 32.0 9.5 32.0 6.0 4 2.5 5.0 7.7 43.0 Max. P. S1.0 Max. P. Max. P. Max. P. Max. P. Max. D. Max. D.	11000 7500 3300 2600 1104000 70000 15500 15500 17000 17000 17000 17000 C Output eak Plate becas, refer to to Type 1 C Output ak Plate becas Plate ak Plate becas Plate ak Plate we 30 ohn obtal Effectiave, 30 ohn obtal Effettiave, 30 ohn obtal Effettiave, 30 ohn obtal Effettiave, 30 ohn obtal	750 1100 1100 1425 1800 1800 1800 1800 1800 425 1575 1800 Ma., 75 Ma., 450 7000 Ma., 75 Ma., 450 Type 1171 1717/M7- Ma., 90 Ma., 540 ve Plate-S.	Ch. S. 3 S. 3 S. 3 S. 3 S. 3 S. 4 S. 4 S. 7 S. 8 S. 5 S. 8 S. 5 Min. Tots Supply In Mi	Value of oke, 10 he 25000 20000 7000 5500 10700 6750 13600 9400 4000 otal Effect Imped., 11 3000 otal Effect Foped, 15 opedance proped, 25 opedance proped, 30 opedance proped of the proper of the pr	150 chms. 170 chms. 150 chms. 170 chms.	85 89 V-99 X-99 112-A 117L7/ M7-GT 117N7-G 117P7-G 117Z3 117Z4-G
85 89 V-99 X-99 112-A 117L7/ M7-GT 17N7-GT 17P7-GT 117Z3 17Z4-GT 17Z6-GT	Rectifier Duplex-Diode Triode Triple-Grid Power Amplifier Detector* Amplifier Triodes Detector* Amplifier Triode Rectifier-Beam Power Amplifier Half-Wave Rectifier Rectifier- Doubler Power Amplifier Triode	D9 C4 D1 D12 C3b C5b C5b C5b C1 C1 C2 C3 C1 C3	Н В О.С. F О.С. Н Н Н	6.3 6.3 3.3 5.0 117 117 117 117 117 5.0	0.3 0.4 0.063 0.25 0.09 0.09 0.09 0.04 0.04 1.25	With Inductive- Input Filter Triode Unit as Class A Amplifier As Triode Class A Amplifier As Pentode Class A Amplifier As Priode Class A Amplifier Amplifier Unit as Class A Amplifier Half-Wave Rectifier With Capacitive- Input Filter With Capacitive- Input Filter Voltage Doubler Half-Wave Rectifier Class A Amplifier	Max. A-C Max. Peal 135 250 160 250 180 90 180 90 180 105 Max. A-C Max. Peal 100 Max. A-C Max. Peal Max. A-C Max. Peal 00 Max. A-C Max. Peal	k Inverse V -10.5 -20.0 -20.0 -20.0 -31.0 -31.0 -31.0 -25.0 0 -4.5 -4.5 -13.5 -5.2 Plate Volte Inverse V Plate Volte Inverse V Volts per I Output M Volts per I Output M -60.0 -9.0	100 250 100 250 100 250 100 250 100 250 100 250 100 250 100 250 100 250 250 250 250 250 250 250 250 250 2	1.6 5.0 117 117 117 117 117 115), 235 te, 60	3.7 8.0 17.0 32.0 9.5 32.0 6.0 43.0 2.5 5.0 7.7 7.7 43.0 Max. Personal Pers	11000 7500 3300 2600 104000 70000 15500 5400 4700 17000 -C Output eak Plate b -C Outpu	750 1100 1425 1800 1425 1800 1800 425 1575 1800 5300 Ma., 75 4a., 450 7000 Ma., 75 Ma., 450 Type 1171 17L7/M7-4 Ma., 90 Ma., 540 Ma., 54	Ch. S. 3 S. 3 S. 3 S. 3 S. 4 S. 4 S. 7 S. 8 S. 5 S. 8 S. 5 Min. Tota Supply I Supply I Min. Tota Supply In Min. Tota Supply In Min. Tota Supply In J. 7 Min. Tota Supply In J. 7	Value of oke, 10 he 25000 20000 7 7000 5500 10700 6750 13600 9400 4000 otal Effect Imped., 11 3000 otal Effect Fepped., 15 on pedance proped.	150 chms.	85 89 V-99 X-99 112-A 117L7/ M7-GT 117N7-G 117P7-G 117Z3 117Z4-G 117Z6-G 183/ 483



LEGEND FOR BASE AND ENVELOPE CONNECTION DIAGRAMS

Bottom Views

KEY TO TERMINAL DESIGNATIONS

Subscripts B, D, HP, HX, P, T, and TR indicate, respectively, beam unit, diode unit, heptode unit, hexode unit, pentode unit, triode unit, and tetrode unit in multi-unit types.

BC = Base Sleeve

BS = Base Shell

DJ = Deflecting Electrode

ES = External Shield

F = Filament

 $F_M = Filament Mid-Tap$

G = Grid

H = Heater

 $H_L = Heater Tap for$

Panel Lamp

 $H_M = Heater Mid-Tap$

IC = Internal Connection-Do Not Use

= Internal Shield

15 = Internal Shiela

Gas-Type Tube

K = Cathode

NC = No Connection

P = Plate (Anode)

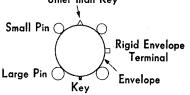
RC = Ray-Control Electrode

S = Shell

TA = Target

U = Unit

Orientation Symbol other than Key



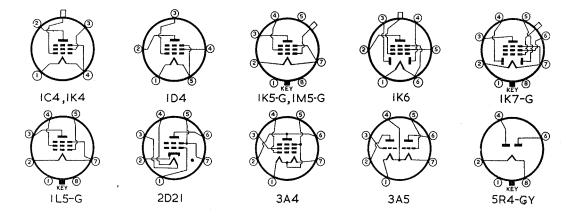
KEY TO TUBE DIMENSIONS

Symbo [‡]	Maximum Overall Length > Diameter	Symbol	Mazimum Overall Length x Diameter	Symbol	Moximum Overall Length a Diameter	Symbol	Maximum Overall Length x Diameter	Symbol	Maximum Overall Length e Dioxetes
A A1 A10 B0 B00 B00 B00 B1 B10 B10 B10 B10 B10	13" x 3" 14" x 24 13" x 15" 21" x 42 21" x 4 25" x 10" 221" x 10"	B5 B5a C0 C0a C1 C2 C2a C2b C3b C5 C5	221" x 1.6" 21" x 1.6" 3" x 1.6" 3" x 1.6" 31" x 1.6" 31" x 1.6" 31" x 1.6" 31" x 1.6" 31," x 1.6"	C10 C10a C11 D1 D2 D2a D3 D4 D5 D7 D8	37." x 19." 31.0" x 11.0" 31." x 11.0" 31." x 19." 41." x 13."	D9 D9a D10 D12 D12a D13 E1 E2 E3 F1 F1a G1	413" x 110" 42" x 110" 43" x 110" 43" x 110" 410" x 110" 410" x 110" 410" x 110" 510" x 110" 510" x 110" 510" x 210" 61" x 210" 61" x 210" 61" x 210"	GHHUKUKZORRO	112" × 21" 121" × 51" 141" × 71" 1411" × 71" 1411" × 16" 1711" × 16" 18" × 101" 19" × 102" 211" × 91" 221" × 91" 221" × 16" 251" × 123"

1C4 to 5R4-GY

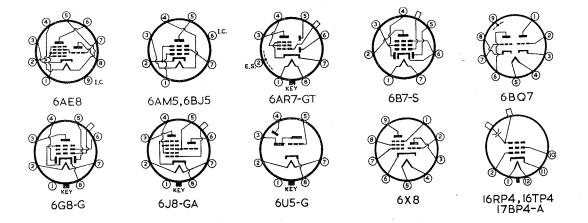
ADDITIONAL RCA AND AWV TYPES

TYPE	NAMÉ	DIMENSIONS Maximum Overall		ATHOI TYPE AND RATING		USE Values to right give operating condi- tions and charac-	PLATE SUP- PLY	GRID BIAS	SCREEN	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv.	Amplifi- cation	LOAD For Stated Power	POWER OUT- PUT
		Length x Diam.	C.T.	Volts	Amp.	teristics for indi- cated typical use	Volts	Volts	Volts	mA.	mA.	Ohms	cond.) μ mhos	Factor	Output Ohms	Watts
IC4	REMOTE CUT-OFF PENTODE	415" x 13"	D.C. F.	2.0	0.12	Amplifier	135 135 135	0 0 3.0	45 67.5 90	0.5 0.9 0.5	1.25 2.5 1.5	1,560,000 800 000 1,850,000	780 1,000 700			
ID4	POWER PENTODE	4116" x 1118"	D.C. F.	2.0	0.24	Class A Amplifier	135 157.5 180	4.5 4.5 6.0	135 157.5 180	1.5 2.2 2.3	6.0 9.0 9.5	150,000 125,000 137,000	2,150 2,400 2,400		15,000 15,000 15,000	0.35 0.55 0.75
IK4	SHARP CUT-OFF PENTODE	415" x 126"	D.C. F.	2.0	0.12	Amplifier			For o	ther char	acteristic	s refer to	Type IK5-	G below.		
-						R-F Amplifier	90 135 135	0 0 0	67.5 45 67.5	0.95 0.48 0.93	2.48 1.25 2.50	750,000 1,750,000 1,000,000	I,020 820 I,050	-		
IK5-G	SHARP CUT-OFF PENTODE	$4\frac{29}{32}$ " x $1\frac{9}{10}$ "	D.C. F.	2.0	0.12	A-F Amplifier (Resistance Coupled) Plate load 0.25 meg.	135 135 180 180	—1.5 —1.5 —1.5 —1.5	Fol. G Fol. G Fol. G Fol. G	rid Resist rid Resist rid Resist rid Resist	or 0.5 me or 1.0 me or 0.5 me or 1.0 me	g., Voltage g., Voltage g., Voltage g., Voltage	Gain, 62.5 Gain, 75.0 Gain, 74.0 Gain, 88.5	Screen through Screen through	fed from 1 0.75 meg fed from 1 1.0 meg	135 volts . resistor. 180 volts resistor.
						Class A Triode Amplifier Grid No. 2 tied to plate	90 135 180	—3.0 —4.5 —6.0	_		1.5 3.5 5.9	14,800 10,700 9,000	-1,000 1,400 1,700	14.8 15.0 15.3	30,000 15,000 10,000	.013 .05 0.1
IK6	DUO-DIODE PENTODE	415" x 15"	D.C. F.	2.0	0.12	Amplifier			For o	ther char	acteristic	s refer to	Type IK7-0	3 below.		· · · · · · · · · · · · · · · · · · ·
						Pentode Unit as R-F Amplifier	135 135 135	0 0 —4.5	45 67.5 135	0.35 0.7 0.5	0.9 1.8 1.5	2,000,000 1,250,000 1,400,000	620 800 700			
IK7-G	DUO-DIODE PENTODE	433" x 115"	D.C. F.	2.0	0.12	Pentode Unit as A-F Amplifier (Resistance Coupled) Plate load 0.25 meg.	135 135 180 180	1.5 1.5 1.5 1.5	Fol. G Fol. G Fol. G	rid Resisto rid Resisto rid Resisto rid Resisto	or 0.5 me or 1.0 me or 0.5 me or 1.0 me	g., Voltage g., Voltage g., Voltage g., Voltage	Gain, 63.0 Gain, 76.0 Gain, 69.0 Gain, 83.0	Screen through Screen through	fed from 1.0 meg, fed from 1.0 meg,	35 volts resistor. 80 volts resistor.
					i	Class A Triode Amplifier Grid No. 2 tied to plate	135 180	4.5 6.0			2.0 3.5	16,500 15,000	900 1,000	15 15	30,000 40,000	.038
IL5-G	POWER PENTODE	431" x 113"	D.C. F.	2.0	0.24	Class A Amplifier	135 157.5 180	-4.5 -4.5 -6.0	135 157.5 180	1.5 2.2 2.3	6.0 9.0 9.5	150,000 125,000 137,000	2,150 2,400 2,400		15,000 15,000 15,000	0.35 0.55 0.75
IM5-G	REMOTE CUT-OFF PENTODE	432'' x 135''	D.C. F.	2.0	0.12	Class A Amplifier	135 135 135	0 0 —3.0	45 67.5 90	0.5 0.9 0.5	1.25 2.5 1.5	1,560,000 800,000 1,850,000	780 1,000 700	—		
2 D21	THYRATRON TETRODE	2 ¹ / ₈ x ³ / ₄ · ·	н.	6.3	0.6	Relay Tube and Grid-Controlled Rectifier		lax. Peak lax. Peak					Max. Ped Average	ak Catho Cathode	de Ma., 5 Ma., 100	500
	POWER	2111 311	D.C.	1.4	0.2	Class A Amplifier	135 150	—7.5 —8.4	90 90	2.6 2.2	14.8	90,000 100,000	1,900 1,900		8,000 8,000	0.6 0.7
3 A 4	AMPLIFIER PENTODE	2 ⅓ ' x ¾ ' .	F.	2.8	0.1	R-F Power Amplifier	150		135	6.5	18.3	Grid Resi Grid Curr	stor, 0.2 m rent, 0.13 n	egohm na.		1.2 at 10 Mc
	H-F TWIN	2 <u>‡</u> '' x ¾''	D.C.	1.4	0.22	Each Unit as Class A Amplifier	90	-2.5			3.7	8,300	008,1	15		
3A5	TRIODE	28 A 4	F.	2.8	0.11	Push-Pull Class C Amplifier	135	20.0	from G tor, 4,0	rid resis- 100 ohms	30.0	Grid Cu Driving	urrent, 5 m Power, 0.2	a. watt		2.0 at 40 Mc
5R4-GY	FULL-WAVE	5 ½ "x 2½"	F.	5.0	2.0	With Choke Input Filter	Voltage max.	nverse = 2800 volts Plate	R.M.S	. Voltage ax. mA.	per Plate Choke In	e == 1,000 n ductance =	max. volts. = 10.0 min	D-C Out henrys.	put Curre	nt = 175
ontrol I	RECTIFIER	-16 ^ -16				With Condenser Input Filter	Curre Plate	nt per 🍴	R.M.S m Total	. Voltage ax. mA. Plate Sup	per Plate Filter-Inp ply Impe	= 1,000 m out Condensedance per	nax. volts. ser = 4 m Plate =	D-C Out nax. micro 575 min.	out Curre ofarads. ohms.	nt = 150



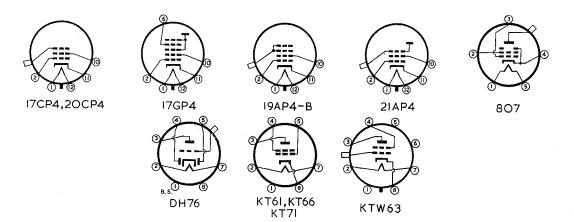
6AE8 to 17BP4-A

ТҮРЕ	NAME	DIMENSIONS Maximum Overall		ATHOD TYPE AND RATINO		USE Yalues to right give operating conditions and characteristics for indicated	PLATE SUP- PLY	GRID BIAS	SCREEN	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output	POWER OUT- PUT
		Length x Diam.	C.T.	Volts	Amp.	typical use	Volts	Volts	Volts	mA.	mA.	Ohms	μ mhos	0K .C	Ohms . 7: 301	Watts
6AE8	TRIODE-HEXODE CONVERTER	2111 X 711	н.	6.3	0.3	Converter	250	-2 25	85	3 <u>·2</u>	3.5 NV	2 meg.	70000LA			-
6 AM 5	POWER PENTODE	2 ½ ' x ¾ ''	Н.	6.3	0.2	Class A Amplifier	250	13.5	250	2.4	16	150,000	2,600	390	16,000	1.4
6AR7-GT	DUO-DIODE REMOTE CUT-OFF PENTODE	33'' x 15''	Н.	6.3	0.3	Pentode Unit as A-F Amplifier	250	—2	100	1.8	7.0	i meg.	2,500	2,500		<u>-</u>
6B7S	DUO-DIODE REMOTE CUT-OFF PENTODE	437 x 18"								Electrica	lly identic	al to Type	e 6G8-G be	low,		1
6BJ5	POWER PENTODE	2 ³¹¹ . x ^{3¹¹}	н.	6.3	0.64	Class A Amplifier	250	— 5	250	5.5	35	40,000	10,500	420	7,000	4.0
6 BQ 7	TWIN-TRIODE	2 3 11 x 7 11	н.	6.3	0.4	Single Section Class A Amplifier	150	-2		_	10	5,800	6,000	35		
						Pentode Unit as R-F Amplifier	250 250	3.0 3.0	100 125	1.5	6.5 9.5	850,000 510,000	1,100 1,210	900 600	<u> — </u>	
6G8-G	DUO-DIODE REMOTE CUT-OFF PENTODE	435'' x 126''	н.	6.3	0.3	Pentode Unit as A-F Amplifier (Resistance Coupled) Plate load 0.25 meg.	135 135 250 250	Fol. Grid Fol. Grid Fol. Grid Fol. Grid	Resisto Resisto Resisto Resisto	or 0.5 meg or 1.0 meg or 0.5 meg or 1.0 meg	., Voltage ., Voltage ., Voltage ., Voltage	Gain 63.5 Gain 75.0 Gain 77.0 Gain 93.0	Cathode Screen-Si work:—I and 0.25	apply Volt 0 megohn	stor = 2,0 age Dividento B + mo to Earth.	er Net-
6J7-G /1620	LOW-NOISE PENTODE	41511 x 11611	Н.	6.3	0.3	Low-Noise Amplifier			or oth	ier chara	teristics	refer to Ty	pe 6J7-G,	see page	9.	
6J8-GA	TRIODE- HEPTODE	4 ¹⁵ / ₈ " x l ⁹ / ₁₆ "	н.	6.3	0.45	Heptode Unit as Mixer	250 250 mc 50,000	⊢ —3.0 ix. volts th ohms, Curi	100 rough ent 0.4	2.9 20,000 oht 4 mA.	l.3 ms, Curre	4,000,000 nt = 5.0	290 mA. Oscil	Triod lator (tric	e Plate fe ode) Grid	d from Resistor
	CONVERTER					Triode Unit	100	0	_		7.0	10,600	1,600	17	<u> </u>	
							Bias, C) voits; An	gie 70	; riute t	Junent, C		Resistor = hadow Ang			
6U5-G	TUNING INDICATOR	4 ₃₂ " x 1 ₁₆ "	Н.	6.3	0.3	Tuning Indicator		and Target Current :) volts; An					e Resistor Shadow An	= 1.0 me gle, 0°.	∍g.	
6X8	TRIODE-PENTODE CONVERTER	2 18 '' x 7 ''	H.	6.3	0.45	Converter	150	3.5	150	1.8	6.2		2,100			<u> </u>
16RP4	DIRECTLY VIEWED KINESCOPE	19g'' x 16 ½''	Н.	6.3	0.6	Picture Reproduction	Def Def	us. Magnet lect: Magn lect.: Angl sphor: P4 s Size: 10 1/8	ne∶ic e, 70°	11	Requires Single Iron- Mac	Field, Trap	Grid-l Grid-l Grid-	No. 2 Vol No. 1 Vol	5,000 max. ts, 300 (41 ts for Visu 77 volts cuit Resis: ms max.	0 max.) al Cut-off ance,
16TP4	DIRECTLY VIEWED KINESCOPE	18½" x 16½"	Н.	6.3	0.6	Picture Reproduction		. As above			As a	bove		As ab Anode Vo	ove, excep lts: 14,000	t max.
17BP4-A	DIRECTLY VIEWED KINESCOPE	19§'' x 16¾''	н.	6.3	0.6	Picture Reproduction	As Picture	above, ex Size: II 16	cept '' x 14	13:1	As a	bove		A	16RP4	

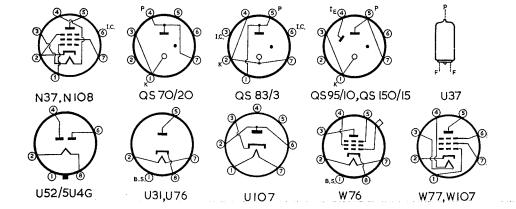


17CP4 to L77

TYPE	NAME	DIMENSIONS Maximum Overall		ATHOD TYPE AND RATING		USE Values to right give operating conditions and characteristics	PLATE SUP- PLY	GRID BIAS	SCREEN	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output	POWER OUT- PUT
		Length x Diam.	C.T.	Volts	Amp.	for indicated typical use	Volts	Volts	Volts	mA.	mA.	Ohms	μ mhos		Ohms	Watts
17CP4	DIRECTLY VIEWED KINESCOPE	18 <u>16</u> '' x 17''	Н.	6.3	0.6	Picture Reproduction		i 16RP4, ex e Size: II''			As I	6RP4		As	16RP4	
17GP4	DIRECTLY VIEWED KINESCOPE	18½'' x 17''	н.	6.3	0.6	Picture Reproduction		17CP4, exc us: Electro			As al	oove	Grid	As 16R No. 2 Vo	P4, excep lts, 300 (5	t 00 max.)
19AP4-B	DIRECTLY VIEWED KINESCOPE	22'' x 18¾''	н.	6.3	0.6	Picture Reproduction	Defi Defi Pho	us: Magnet lect.: Magi lect. Angle sphor: P4 s Size: [13]	netic : 66°	,	As al	oove	Grid-1 Grid-1 - Grid-1	No. 2 Volt No. 1 Volt -33 to —7	cuit Resist	al Cut-off
20CP4	DIRECTLY VIEWED KINESCOPE	21 18 '' x 20 18 ''	Н,	6.3	0.6	Reproduction Picture Size: 13¼" x 17¼"										t max,
21AP4	DIRECTLY VIEWED KINESCOPE	22 ½ " x 21"	Н.	6.3	6.0	As 20CP4, except As above G									P4, excep lts, 300 (5	t 00 max.)
161	BARRETTER	35'' x 135''	F.	0.16 Current Regulator Voltage Range, 100-200 volts. Edison Screw Base.												
302	BARRETTER	5½'' x 2½''	F.		0.3	Current Regulator	rrent Voltage Range, 100-200 Volts, Edison Screw Base.									
807	POWER TETRODE	5¾'' x 2¼''	Н.	6.3	0.9	Class A Amplifier	275	—I5	275	6.2	86	21,500	6,300	135	2,380	8.25
B36	TWIN-TRIODE	3511 x 1311					Electr	ically inter	change	able with	Type 12	N7-GT.		}		
B65	TWIN-TRIODE	3711 x 1311					Electr	ically inte	rchange	able with	Type 6S	N7-GT.				
B63	DUO-DIODE	315" x 175"					Electr	ically inter	change	able with	Type 6H	6-G.				
D77	DUO-DIODE						Identi	ical to Typ	e 6AL5							
DH63	DUO-DIODE HIGH-MU TRIODE	4 3 '' x 1 3 ''					Electr	ically Inte	rchange	able with	Type 60)7-GT.				
DH76	DUO-DIODE HIGH-MU TRIODE	4 ₇₈ " x 1 ₃₂ "	н.	13.0	0.16	Triode Unit as Class A Amplifier	250	3			1.0	58,000	1 200	70		
DH77	DUO-DIODE HIGH-MU TRIODE						Identi	ical to Typ	e 6AT6.							
DH107	DUO-DIODE HIGH-MU TRIODE		н.	19.0	0.1		Other	electrical	chara	teristics i	dentical	to Type 12	AT6.			
KT61	POWER TETRODE	416'' x 13''	Н,	6.3	0.95	Class A Amplifier	250	-4.3	250	7.5	40	75,000	10,500	790	6,000	4.3
KT63	POWER TETRODE						Identi	cal to Typ	e 6F6-G	·			-			
KT66	POWER TETRODE	5 16" x 2 16"	Н.	6.3	1.27	Class A Amplifier	250	15	250	6.3	85	22,500	6,300	142	2,200	7.25
KT71	POWER TETRODE	418" x 182"	Н.	48.0	0.16	Class A Amplifier	175	9.8	175	12.0	70	_			2,500	5.0
KTW63	REMOTE CUT-OFF TETRODE	4 ³ / ₄ '' x ¹⁷ / ₃ ''					Similo	ır to Type	s 6K7-∈	and 6U	7-G.					
L63	MEDIUM-MU TRIODE	37'' x 13''					Electr	ically inter	change	able with	Type 6J	i-GT.				
L77	MEDIUM-MU TRIODE						ldenti	cal to Typ	e 6C4.							



TYPE	NAME	DIMENSIONS Maximum Overall Length x Diam.		ATHOE TYPE AND RATING	G	USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP- PLY Volts	GRID BIAS	SCREEN SUPPLY	Screen Current mA.	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output Ohms	POWER OUT- PUT	
N17	POWER PENTODE	z.c.igt.			1 -	lde	ntical to	Type 3S4.				•		·	4	·	
N18	POWER PENTODE					lde	ntical to	Type 3Q4									
N19	POWER PENTODE					lde	ntical to	Type 3V4.									
N37	POWER PENTODE	2¾'' x ¾''	н.	13.0	0.3	Class A Amplifier	165	8	165	7	54.5	28,500	10,000	285	3,000	4.0	
N77	POWER PENTODE	•				Ide	ntical to	Type 6AM	5.								
N78	POWER PENTODE				Identical to Type 6BJ5.												
N 1 08	POWER PENTODE		н.	40.0	1.0	Oth	Other electrical characteristics identical to Type N37.										
QS.70/20	VOLTAGE REGULATOR	2½" x ¾"			_	Voltage Regulator	D-C Operating Current, 20 mA. max., 2 mA. min.										
QS.83/3	VOLTAGE REFERENCE VALVE	2½'' x ¾''				Yoltage Reference Valve	Yoltage Stability, 0.1%. Also D.C. Starting Volts 130 D.C. Operating Volts 83										
QS.95/10	VOLTAGE REGULATOR	2 ⅓ ' x ¾''				Voltage Regulator	Min. D	C Starti	na Volt:	Volts, 15 s, 110. t, 10 mA.	D-C Oper	ating Volt mA. min.	s, 95.	§ Y			
QS.150/15	VOLTAGE REGULATOR	2½" x ¾"			_	Yoltage Regulator	Min. D	-C Starti	na Volt	Volts, 24 s, 170. t, 15 mA.	D-C Or	perating V mA, min.	olts, 150.				
U31	HALF-WAVE RECTIFIER	4¾'' x 1¾''	н.	26.0	0.3	With Condenser Input Filter	Max. A	A-C Plate Peak Inve	Voits (rse Volt	(R.M.S.), s, 700.	250. M Max. Pe	ax, D-C C ak Plate n	output mA nA., 750.	. 120.			
U37	HIGH VOLTAGE RECTIFIER	17'' x ½''	F.	1.4	0.14	Half Wave Rectifier		nverse Vo late Curr			D-C Outp Surge Pla	ut Curren te Current	t, 2 mA. , 40 mA.				
U52 /5U4-G	FULL-WAYE RECTIFIER	5 ½ '' x 2 ½ ''	F.	5.0	2.25	With Choke Input Filter With Condenser Input Filter	Volt 1430 m Peak Cui per	Inverse tage, ax. volts Plate Plate, ax. mA.	R.M.5	5. Voltage max. mA.	per Plat	e, 500 mo	x. volts. ce, 3.0 min x. volts. ndenser, 8 er Plate, 1	D-C Ou max. mi		en:, 250	
U76	HALF-WAYE RECTIFIER	37" x 112"	Н.	30.0	0.16	With Condenser Input Filter	Max. Plate	Peak Inve Suppiv Im	rse, 700 spedanc	, 250 volt volts. e, 100 oh 32 max.	Max.Ped ms.	ak Plate C	tput, 100 r urrent, 500	mA.) mA.			
U78	FULL-WAVE RECTIFIER						lde	ntical to	Type 6X	4.							
U107	HALF-WAVE RECTIFIER	2¾" x ¾"	н.	40.0	0.1	With Condenser Input Filter		A-C Plate Peak Inve		(R.M.S.), s, 700.	250, M Max, Ped	ax, D-C C ak Plate n	Outpu: mA nA., 540.	., 90.			
W17	REMOTE CUT-OFF PENTODE						lde	ntical to	Type IT	4.							
W76	REMOTE CUT-OFF PENTODE	416" x 1111"	Н.	13.0	0.16	Class A Amplifier	175	2-3	100	1.7	8.5	500,000	1 500	750			
W77	REMOTE CUT-OFF PENTODE	21'' x 1''	н.	6.3	0.2	Class A Amplifier	200	—2.5	200	2.0	8.0	500,000	2,500	1,250			
W107	REMOTE CUT-OFF PENTODE	2 t x 3 11	Н.	12.6	0.1		Oti	ner electr	ical cha	aracteristi	cs identic	al to Type	. W77.				



X17 to ZD17

TYPE	NAME	DIMENSIONS Maximum Overall		ATHOL TYPE AND RATIN		USE Values to right give operating conditions and characteristics for indicated	PLATE SUP- PLY	GRID BIAS	SCREEN	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output	POWER OUT- PUT
		Length x Diam.	C.T.	Volts	Amp.	typical use	Voits	Volts	Volts	mA.	mA.	Ohms	μ mhos		Ohms	Watts
X17	PENTAGRID CONVERTER						Ide	ntical to	Type 1R	5.						
X18	PENTAGRID CONVERTER	2½" x ¾"	D.C. F.	1.4	0.05	Converter	90	0	45				300	Anod	le-Grid Vo 70 max.	oltage,
X61M	TRIODE-HEXODE CONVERTER	4½" x l ½½"	Н.	6.3	0.3	Converter	250 Oscilla Oscilla	—3 tor Plate tor Grid	100 fed fro Resisto	2.8 m 250 vo	3.7 Ics throug ohms.	700,000 h 30,000 o Current, 0	620 hms. Cu .3 mA.	 rrent, 3.5	mA.	
X63	PENTAGRID CONVERTER		Similar to Type 6A8-G.													
X76M	TRIODE-HEXODE CONVERTER	43 '' x 32 ''	Н,	13.0	0.16	[*] Converter	250 Oscilla Oscilla	—3 tor Plate tor Grid	100 fed fro Resisto	2.8 m 250 vol	3.7 Its throug ohms.	700,000 h 30,000 ol Current, 0	620 hms. Cu .3 mA.	 rrent, 3.5	mÁ.	
X78	TRIODE-HEXODE CONVERTER	2½'' x ¾''					lder	ntical to	ype 6A	E8, excep	t for basi	ng.				
X79	TRIODE-HEXODE CONVERTER		-			. "	lder	ntical to	Гуре 6А	E8.						
X109	TRIODE-HEXODE CONVERTER		Н,	19.0	0.1		Oth	er electri	cal cha	racteris ii c	s identic	al to Type	6AE8.			
Y61	TUNING INDICATOR						lder	itical to	ype 6U	5-G.				8		
Z 63	SHARP CUT-OFF PENTODE	4½" x 1¾"					Elec	trically in	terchar	igeable w	ith Type	6J7-G.		7		
	R-F AMPLIFIER	0111 211				Class A Pent.	250	— 2	250	2.5	10	300 000	7,500	Cathode	Bias Res.,	160 ohms,
277	PENTODE	2 1 x 3 1 1	Н.	6.3	0.3	Amplifier Triode	250	<u>—2</u>			12.5	10,000	.Z. 500	75	Cathoo Res., 16	de Bias O ohms,
ZD17	DIODE-PENTODE	·	· · · ·	·········			Ider	ntical to	ype IS	5,					•	







X6IM,X76M



X78



9375

OTHER MANUFACTURERS' TYPES

1AB6 to 6AG6-G

11100	o onao a															
TYPE	NAME	DIMENSIONS Maximum Overall	CATHOI TYPE AND RATIN		Values to right give operating		PLATE SUP- PLY	GRID BIAS	SCREEN	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANGE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output	POWER OUT- PUT
		Length x Diam.	C.T.	Volts	Amp.		Volts	Volts	Volts	mA.	mA.	Ohms	μ mhos		Ohms	Watts
1AB6	PENTAGRID CONVERTER	24'' x 3''	F.	1.4	0.025	Converter	85	0	64	0.17	0.65	I meg.	300			
IAC6	PENTAGRID CONVERTER	2 t x 3 t 1	F.	1.4	0.05	Converter	85	0	60	0.14	0.65	I meg.	325		-	
IAH5	DIODE PENTODE	2¼'' x ¾''	F.	1.4	0.025	Class A Amplifier	85	10 meg.	85	Plate Lo Screen F	ad Resista eed Resis	ance, i me cance, 3.3	eg. Volto meg.	age Gain,	62.	
1 E 3	H-F TRIODE	218" x 2"	F.	1.25	0.22	Class A Amplifier	150	-3.5			20	4,000	3,500	14	l —	
3C4	POWER PENTODE	2¼'' x ¾''	F.	1.4	0.05 0.025	Class A Amplifier	85	5.2	85	1.1	5.0	125,000	1,350	169		0,2
0480	TRIODE-POWER	25" x 2"	Н.	6.3	0.3	Triode	100	2.3			4.0	12,500	1,400	17		
6AB8	PENTODE	25" x 7"	n.	0.3	0.3	Pentode	170	6.3	170	2.8	15.0	150,000	3,300	495	11,000	1.0
6AD8	DUO-DIODE PENTODE	25'' x 2''	Н.	6.3	0.3	Class A Amplifier	250	2	85	2.3	6.7	I meg.	1,100	1,100		
6AG6-G	POWER PENTODE	5 5 '' x 2 18''	Н	6.3	1.2	Class A Amplifier	250	6	250	6.0	32.0	60,000	10,000	600	9,000	3.75

RADIOTRON LIST OF EQUIPMENT TYPES

JANUARY, 1952

			Current R	eceiver Equipr	nent Types			Types for
CLASSIF	-ICATIONS	Bat	tery	A.	C.	A.C./D.C.	Miscell.	Application
	vo a	Miniature	Octal	Miniature	Octal	Miniature	Miniature	Octal
Frequency	Pentagrids	1R5	107-G	6BE6	6A8-G	12BE6		
Converters	Triode-Hexodes			6AE8	X61M			
R-F Pentodes.	Remote Cut-Off	1T4	1M5-G	6BA6	6U7-G	12BA6		
-F & A-F Pentodes. Sharp Cut-O			1K5-G	6AU6		12AU6	Z77	6J7-G/1620
Double-Diode R-F Pentodes			1K7-G		6AR7-GT 6B8-GT			
Diode A-	F Pentodes	185						
Double-Di	ode Triodes			6AV6	6SQ7-GT	12AT6		
Doubl	e-Diodes						6AL5	
Double	e-Triodes			and the state of t			6J6 12AT7 12AU7 12AX7	6SN7-GT
Ţr	iodes						6C4	
Output Tetrodes & Pentodes		3S4 3V4	1L5-G	6AQ5 6BJ5	6V6-GT	5005		KT66
Half-Wave Rectifiers						35W4		
Full-Wav	e Rectifiers			6X4	5Y3-GT 6X5-GT			U52/5U4-G

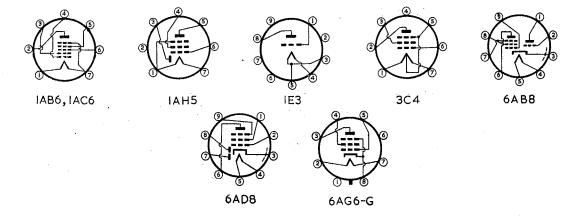
This list of types is presented to assist equipment manufacturers in planning for future production of broadcast receivers and similar equipment.

By using types shown on this list in bold face, manufacturers will tend to reap the benefits of better availability, lower cost and better quality.

These types are in general made in Australia, and are intended to satisfy the main requirements of receiver manufacturers.

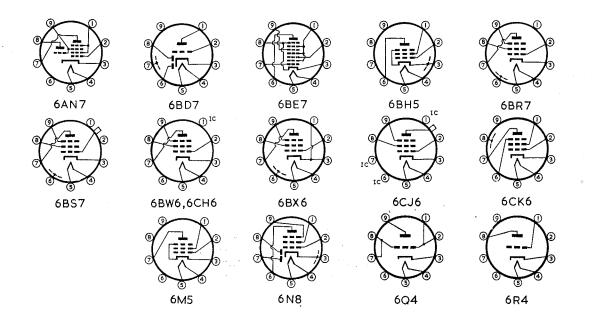
To extend the advantage of standardisation to valves for miscellaneous applications, a number of other types are included on the list, and these are shown in ordinary type. A list of specific T.V. types is not given, as developments in this field are at present so rapid. Advice on the best choice of T.V. types will be given on enquiry.

N.B.-Recommended types are shown in bold face.

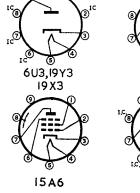


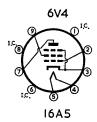
6AM6 to 6R4

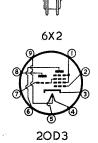
TYPE	NAME	DIMENSIONS Maximum Overall		ATHOD TYPE AND RATING		USE Yalues to right give operating conditions and characteristics	PLATE SUP- PLY	GRID BIAS	SCREEN	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output	POWER OUT- PUT
		Length x Diam.	C.T.	Volts	Amp.	for indicated typical use	Volts	Volts	Volts	mA.	mA.	Ohms	μ mhos		Ohms	Watts
6AM6	SHARP CUT-OFF PENTODE						Simil	r to Type	Z77.					(A)	0P 30	
6AN7	TRIODE-HEXODE CONVERTER	25'' x 7''	н.	6.3	0.23	Converter	250	R <u>r. 100</u> -29	85	3.0	3.0	1,6 meg.	11/2 /12/2 750 41/20 4	21 - 1 (7/2)	35.7 4.19	DA:-
6BD7	DUO-DIODE TRIODE	2511 x 711	н.	6.3	0.23	Class A Amplifier	250	-3			1.0	58,000	1,200	70		_
6BE7	F-M LIMITER DETECTOR	25'' x 7''	н.	6.3	0.2	Detector	250	-4.5	20	1.5	0.25	5 meg.				
6BH5	REMOTE CUT-OFF	25'' x 7''	Н.	6.3	0.2	Class A Amplifier	250	—2.5	100	1.7	6.0	I meg.	2 200	2,200		
6BR7	LOW-NOISE SHARP CUT-OFF PENTODE	2 16 '' x 7 ''	Н.	6.3	0.15	Class A Amplifier	250	3	100	0.6	2.1	2.5 meg.	1,250	3,120		
6BS7	LOW-NOISE SHARP CUT-OFF PENTODE	2311 x 711					Electri	ically ider	itical to	Type 6Bl	R7.	·	'			<u>.</u>
6 BW 6	POWER PENTODE	25'' x 7''					Electr	ically ider	ntical to	Type 6V	s-GT.					
6BX6	SHARP CUT-OFF PENTODE	25'' x 7''	н.	6.3	0.3	Class A Amplifier	170	2	170	2.5	10.0	400,000	7,200	2,830		_
6CH6	POWER PENTODE	2511 x 711	Н.	6.3	0.75	Class A Amplifier	250	-4.5	250	6.0	40.0	50,000	11,000	550	6,000	
6CJ6	POWER PENTODE	3 3 10 X 211	Н.	6.3	1.05	Class A Amplifier	250	—38 .5	250	2.4	32	15,000	4,600	69	8,000	
6CK6	POWER PENTODE	3 1 1 x 7 1	н.	6.3	0.71	Class A Amplifier	250	5.5	250	5	36	130,000	10,000	1,300	7,000	
6M5	POWER PENTODE	3 16" x 78"	Н.	6.3	0.71	Class A Amplifier	250	RK : 170°	250	5.2	36	40,000	10,000	400	7,000	3.97 4.8
6N8	DUO-DIODE	25" x 7"	н.	6.3	0.3	Class A Amplifier	250	0x1290 -41.5	Sec. 27.	95×75	5 N/1/.	1.6 meg.	2,200	3,520		
6Q4	H-F TRIODE	2¦" x 7"	н.	6.3	0.48	Class A Amplifier	250	-1.5			15	6 600	12,000	80		
6 R 4	H-F TRIODE	21 x 711	Н.	6.3	0.2	Class A Amplifier	150	2			30	2,900	5,500	16		

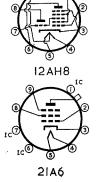


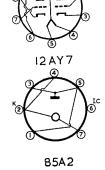
ТҮРЕ	NAME	DIMENSIONS Maximum Overall Length x Diam.		ATHOD TYPE AND RATING		USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP- PLY Volts	GRID BIAS	SCREEN SUPPLY	Screen Current mA.	PLATE CUR- RENT mA.	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output Ohms	POWER OUT- PUT Watts
6U3	HALF-WAYE RECTIFIER	3 1 1 X 2 1	'Н	6.3	0.9	Rectifier	Max. P	l eak Invers eak Plate	l e Volts, Current	4,000. 400 mA.	Max.	D.C. Out	put Currer	it, 180 m/	۱ ۸.	' <u></u>
6 V 4	FULL-WAVE RECTIFIER	3 1 x : 211	Н.	6.3	0.6	Rectifier	Max. A Max. D	.C. Plate .C. Outpu	Volts, t Curre	350. M nt, 90mA	ax. Input	Condense	r, 50mF.			
6X2	HALF-WAVE RECTIFIER	2'' x 5''	Н.	6.3	0.08	Rectifier		eak Invers .C. Outpu				miting Res . Input Co	istance, 0. ondenser, 0	l meg. J.I mF.		
7 D 9	POWER PENTODE			<u>'</u>			lden	tical to Ty	pe 6AA	45.						
7D10	POWER PENTODE						lden	tical to Ty	pe 6CH	16.						
8 D 3	SHARP CUT-OFF PENTODE						Simi	ar to Typ	e Z 77.							
8D5	LOW-NOISE PENTODE						lden	tical to Ty	pe 6BR	7.						
8D6	SHARP CUT-OFF PENTODE						Simil	ar to Type	e 6BX6.	-						
8 D7	LOW-NOISE PENTODE						lden	ical to Ty	pe 6BS7	'.						
9D6	REMOTE CUT-OFF PENTODE						lden	tical to Ty	pe W7 7	·				1		
12AH8	TRIODE-HEPTODE CONVERTER	2511 x 711	x 3" H. 6.3 0.3 Converter 250 —3 100 4.4 2.6 1.5 meg. 550 — —													
12AY7	LOW-NOISE TWIN TRIODE	2 16 11 x 211	н.	6.3 12.6	0.3 0.15	Single Section Class A Amplifier	250	-4			3.0	23,500	1,700	40		
15A6	POWER PENTODE	31" x 7"	Н.	15.0	0.3	Class A Amplifier										
16A5	POWER PENTODE	3 10" x 2"	н.	16.5	0.3	Class A Amplifier	200	13.9	200	8.5	45.0	24,000	7,600	182	4,000	4.2
19 AQ 5	POWER PENTODE		н.	19.0	0.15		,	Other e	lectrico	l charact	eristics id	encical to	Type 6AQ	5,		
19 X 3	HALF-WAVE RECTIFIER	316" x 2"	н.	19.0	0.3			Other e	lectrico	ıl charact	eristics id	entical to	Type 6U3.			
19Y3	HALF-WAVE RECTIFIER	316" x 3"	Н.	19.0	0.3	Rectifier	Max. Pe Max. D.	ak Inverse C. Output	Volts, Curren	700. M t, 180 mA		Condense	r, 60mF.			
20 D 3	TRIODE-HEXODE CONVERTER	2 3 1 x 7 1 1	н.	6.3 12.6	0.3 0.15	Converter	250	-3	100	4.6	3.6	700,000	690			
21A6	POWER PENTODE	3¼" x 7"	н.	21.5	0.3	Class A Amplifier	180	23	180	3.0	45.0		6,500	<u> </u>		
85 A 2	YOLTAGE REFERENCE	2 1 x 3 11				Voltage Regulator	Striking Regulate	Volts, 125 d Volts, 8		rrent Rand	ge, I-10m	۸.				
6005	POWER PENTODE			-			Rugge	dized versi	on of T	ype 6AQ5	·.				•	
6057	TWIN-TRIODE						Rugge	dized versi	on of T	ype I2AX	7.					
6058	TWIN-DIODE						Rugge	dized versi	on of T	ype 6AL5.						
6059	LOW-NOISE PENTODE						Rugge	dized versi	on of T	ype 6BR7.		*				
6060	TWIN-TRIODE	Ruggedized version of Type 12AT7.														
6061	POWER PENTODE						Rugge	dized vers	ion of T	ype 6BW6	5 ;					
6063	FULL-WAVE RECTIFIER						Rugge	dized versi	on of T	ype 6X4.						











6064 to EB91

TYPE	NAME	DIMENSIONS Maximum Overall		ATHOD TYPE AND RATING		USE Values to right give operating conditions and characteristics	PLATE SUP- PLY	GRID BIAS	SCREEN	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output	POWER OUT- PUT
		Length x Diam.	С.Т.	Volts	Amp.	for indicated typical use	Volts	Volts	Volts	mA.	mA.	Ohms	μ mhos		Ohms	Watts
6064	SHARP CUT-OFF PENTODE					•	Ruggeo	lized vers	on of T	ype Z77.						
6065	REMOTE CUT-OFF	-		-		, , , , , , , , , , , , , , , , , , , ,	Ruggeo	lized vers	ion of T	ype W77.						
6066	TWIN-DIODE TRIODE			•			Ruggeo	lized vers	ion of T	ype 6AT6.						and the state of t
6067	TWIN-TRIODE						Ruggeo	lized vers	ion of T	ype I2AU	7.					
6073	YOLTAGE REGULATOR						Ruggeo	lized vers	ion of T	ype OA2.						
6074	VOLTAGE REGULATOR						Ruggeo	lized vers	ion of T	ype OB2.						
6084	LONG-LIFE SHARP CUT-OFF PENTODE	2 ½ x ½"	н.	6.3	0.3	Class A Amplifier	250	—2	100	0.55	3.0	I.8 meg.	1,850	3,300		
6085	LONG-LIFE DOUBLE TRIODE	25'' x 7''	Н.	6.3 12.6	0.6	Single Section Class A Amplifier	250	5.5			6.0	11,100	2,700	30		
6086	POWER PENTODE	25'' x 7''	н.	18.0	0.1	Class A Amplifie	210	—I.8	120	1.7	8.3	440,000	8,200	3,600	20,000	0.66
DA90	H-F DIODE	<u> </u>				I	Iden	ical to Ty	pe IA3				.'	J	'	
DAF91	DIODE-PENTODE		Identical to Type IS5.													
DAF96	DIODE PENTODE		Identical to Type IAH5.													
DC80	H-F TRIODE		Identical to Type IE3.													
DCC90	TWIN-TRIODE		Identical to Type 3A5.													
DF91	REMOTE CUT-OFF PENTODE						ldent	ical to Ty	pe IT4.							
DF92	SHARP CUT-OFF PENTODE						Ident	ical to Ty	pe IL4.			,				
DF96	REMOTE CUT-OFF PENTODE	2 ¹ / ₄ '' x ³ / ₄ ''	F.	1.4	0.025	Class A Amplifier	90	0	90	0.5	1.65	I.4 meg.	850	i ,200		
DK91	PENTAGRID CONVERTER						Ident	ical to Ty	pe IR5.							
DK92	PENTAGRID CONVERTER						ldent	ical to Ty	pe IAC	6.	445					
DK96	PENTAGRID CONVERTER						ldent	ical to Ty	pe IAB	6.						
DL91	POWER PENTODE						ldent	ical to Ty	pe IS4.							
DL92	POWER PENTODE						Ident	ical to Ty	pe 354.			**				
DL93	POWER PENTODE				,		Ident	ical to Ty	pe 3A4					, ,		
DL94	POWER PENTODE						Ident	ical to Ty	pe 3V4.							
DL.95	POWER PENTODE					-	ldent	ical to Ty	pe 3Q4							
DL96	POWER PENTODE						ldent	ical to Ty	pe 3C4	•						
DY30	HALF-WAVE RECTIFIER						ldent	ical to T	pe IB3-	GT.						
EAC91	H-F DIODE-TRIODE	2½'' x ¾''	н.	6.3	0.3	Class A Amplifier	200	2.8			7.5	12.800	2,800	36	_	
EB34	DUO-DIODE	31" x 17"	н.	6.3	0.2		Other	electric	ıl charc	cteristics	similar t	o Type 6H	16-G.	!	1	
EB91	DUO-DIODE					·	Ident	ical to T	pe 6AL	5.						









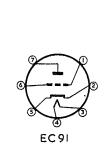


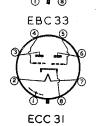
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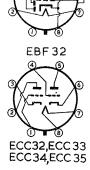
EAC91

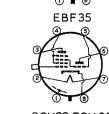
EBC33 to EF95

TYPE	NAME	DIMENSIONS Maximum Overall Length x Diam.		ATHOR TYPE AND RATING		USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP- PLY	GRID BIAS	SCREEN SUPPLY	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output	POWER OUT- PUT Watts
EBC33	DUO-DIODE TRIODE	4'' x 1¼''	н.	6.3	0.2	Class A Amplifier	250	5.5			5.0	15,000	2,000	30		
EBF32	DUO-DIODE PENTODE	415" x 155"	Н.	6.3	0.2	Class A Amplifier	250	2.0	100	1,6	5.0	1.3 meg.	1.800	2,340		
EBF35	DUO-DIODE PENTODE			-			Ident	ical to T	ype EBF	32, excep	t for bas	ing.				
EBF80							Ident	ical to Ty	pe 6N8							
EC80							Ident	ical to Ty	pe 6Q4							
EC81							ident	ical to Ty	pe 6R4.							
EC91	H-F TRIODE	2½" x ¾"	н.	6.3	0.3	Class A Amplifier	250	—1.5		_	10.0	12,000	8,500	100	<u> </u>	
ECC31	TWIN-TRIODE	43'' x 113''	Н.	6.3	0.95	Single Section Class A Amplifier	250	-4.6			6.0	14,000	2,300	32		
ECC32	TWIN-TRIODE	43" x 113"				Identic	al to Typ	e ECC31,	except	that ECC	C32 has se	parate C	athodes.			
ECC33	TWIN-TRIODE	3¼" x l 5"	н.	6.3	0.4	Single Section Class A Amplifier	250	4 .0	-		9.0	9,700	3,600	35		
ECC34	TWIN-TRIODE	43 '' x 113''	Н.	6.3	0.95	Single Section Class A Amplifier	250	—16			10.0	5,200	2,200	11.5		
ECC35	TWIN-TRIODE	3¼" x l 5 "	Н.	6.3	0.4	Single Section Class A Amplifier	250	2.5		m	2.3	34,000	2,000	68		$\lceil - \rceil$
ECC81	TWIN-TRIODE						Ident	ical to Ty	pe I2A	T7.						
ECC91	TWIN-TRIODE						ldent	ical to Ty	pe 616.							
ECH33	TRIODE-HEXODE CONVERTER	4½" x l 76"	н.	6.3	0.2		Othe	r electric	al char	acteristics	identical	to ECH3	5.			
ECH35	TRIODE-HEXODE CONVERTER	4½" x 1,76"	н.	6.3	0.3	Converter	250	—2	100	3.0	3.0	1.3 meg.	650			
ECL80							Ident	ical to Ty	pe 6AB	18.		44				
EF37	SHARP CUT-OFF PENTODE	4'' x 14''	н.	6.3	0.2	Class A Amplifier	250	2	100	0.8	3.0	2.5 meg.	1,800	4,500	_	
EF37A	LOW-NOISE PENTODE						Ident	ical to Ty	pe EF3	7.					,	•
EF39	REMOTE CUT-OFF PENTODE	4" x 14"	н.	6.3	0.2	Class A Amplifier	250	2.5	100	1.7	6.0	1.25 meg.	2,200	2,750		
EF80							lden	tical to T	pe 6BX	6.						
EF91	HIGH-SLOPE R-F PENTODE	Identical to Type Z77.														
EF92	REMOTE CUT-OFF PENTODE	Identical to Type W77.														
EF93	REMOTE CUT-OFF PENTODE						Iden	tical to T	pe 6BA	۸6.						
EF95	H-F PENTODE						lden	ical to Ty	pe 6Ak	(5,						











EL33 to UBF80

түре	NAME	DIMENSIONS Maximum Overall		ATHOR TYPE AND RATIN		USE Values to right give operating conditions and characteristics	PLATE SUP- PLY	GRID BIAS	SCREEN	Screen Current	PLATE CUR- RENT	A-C PLATE RESIS- TANCE	TRANS- CONDUC- TANCE (or conv. cond.)	Amplifi- cation Factor	LOAD For Stated Power Output	POWEF OUT- PUT
	la constant	Length x Diam.	C.T.	Volts	Amp.	for indicated typical use	Volts	Volts	Volts	mA.	mA.	Ohms	μ mhos		Ohms	Watts
EL33	POWER PENTODE	5" x 113"					· El	ectrically	Identic	al to Type	6AG6-G	. Po	=4.	5W_		
EL35	POWER PENTODE	5 3 11 x [711	н.	6.3	1.35	Class A Amplifier	250	-15.5	250	8.0	72.0	15,500	5,000	77.5	2,500	6.0
EL37	POWER PENTODE	5 18 " x 2 11"	Н.	6.3	1.4	Class A Amplifier	250	13.5	250	13.5	0.001	13,500	11 000	148	2,500	10.5
EL81	POWER PENTODE						lde	ntical to	Type 6C	316.					:	Agrandia i Anna
EL83	POWER PENTODE						lde	ntical to	Type 6C	K6.						
EL91	POWER PENTODE					** ***********************************	lde	ntical to	Type 6A	M5.					:	
EM34	TUNING INDICATOR	3½" x 1¾"	н.	6.3	0.2	Tuning Indicator	250	_5 to16			0.75					
EQ80	F-M LIMITER DETECTOR		Identical to Type 6BE7.													
EY5I	HALF-WAVE RECTIFIER		Identical to Type 6X2.													
EY80	FULL-WAVE RECTIFIER		Identical to Type 6U3.													
EY91	HALF-WAVE RECTIFIER	2 18 " x 3"	2 % X 2 H. 6.3 0.42 Rectifier Max. Peak Inverse Plate Volts, 750. Max. Peak Plate Current, 375 mA. Max. Input Condenser, 32mF.													
EZ35	FULL-WAYE RECTIFIER						lde	ntical to	Type 6X	5-GT.				i Supp		
EZ82	FULL-WAVE RECTIFIER						Der	ated 6V4.								
GZ32	FULL-WAVE RECTIFIER						Sim	ilar to Ty	pe 5V4-	G.						
PL21	THYRATRON						lde	ntical to	Type 20	21.	100					
PL33	POWER PENTODE	5" x 1 18"	н.	19.0	0.3	Class A Amplifier	225	5.3	225	3.4	32	50,000	9,000	450	7,000	3.3
PL38	POWER PENTODE	5 16" x 21"	н.	30.0	0.3	Class A Amplifier	200	5.5	200	9.0	75	20,000	13,500	270		
PL81	POWER PENTODE						lde	ntical to	Type 21	A6.						
PL82	POWER PENTODE				-		ļde	ntical to	Type 16	A5.						
PL83	POWER PENTODE			- 15			lde	ntical to	Type 15	A6.						
PY80	HALF-WAVE RECTIFIER						lde	ntical to	Type 19	X3.						
PY82	HALF-WAVE RECTIFIER	Identical to Type 1993.														
PZ30	FULL-WAVE RECTIFIER	42" x [{3"	н.	52.0	0.3	Rectifier	Max. D.	C. Plate (olts, 24 Current,	0 r.m.s. 400mA.					11	
U30	BARRETTER	47'' x 18''	F.		0.1	Current Regulator	Voltage	Range, 70)-122.5.	100000						
					-	-							Carlo Maria	EMILIA N. HALL WHITE	er to the entire the terms	Albanda Nata 1

