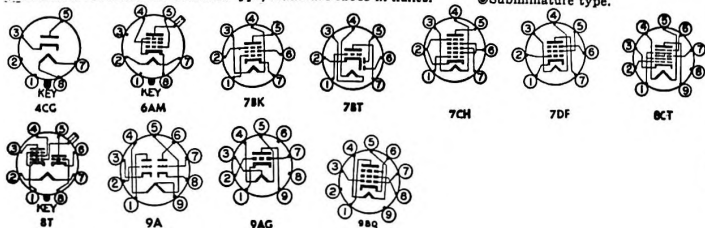


Tube Type	Classification by Construction	Base Connections	Out-line Dwg	Type Cath-ode	Filament Volts	Filament Amp	Max Plate Volts	Max Screen Volts	Capacitance in Micromicrofarads		
									Input	Out-put	Grid-plate
12AX4-GT 12AX4-GTA	Half-wave High-Vacuum Rectifier	4CG	9-11 or 9-41	Htr	12.6 12.6%	0.6 0.6%	Tube Voltage Drop: 32 v at 250 ma d-c				
18AX7	High-Mu Twin Triode	9A	6-2	Htr	12.6 6.3	0.15 0.3	300	—	1.8	1.9	1.7
18AY7	Twin Triode	9A	6-2	Htr	12.6 6.3	0.3 0.15	300	—	1.3▲	0.6▲	1.3▲
18AZ7	Twin Triode	9A	6-2	Htr	12.6 6.3	0.225 0.45	330	—	3.2	1.3 1.6	1.9
12B4 12B4-A	Low-Mu Triode	9AG	6-3	Htr	12.6 6.3	0.3 0.6	550	—	5.0▲	1.5▲	4.8▲
12B8-GT	Remote-Cutoff Pentode Triode	8T	9-24	Htr	12.6	0.3	90	90	Pentode Section Triode Section		
12BA6	Remote-Cutoff RF Pentode	7BK	5-2	Htr	12.6	0.15	300	150	5.5	5.0	0.0035▲
12BA7	Pentagrid Converter	8CT ▼	6-3	Htr	12.6	0.15	300	100	Osc $I_{g1} = 0.35$ ma $R_{g1} = 20,000$ ohms		
12BD6	Remote-Cutoff RF Pentode	7BK	5-2	Htr	12.6	0.15	300	125	4.3▲	5.0▲	0.005▲
12BE6	Pentagrid Converter	7CH ▼	5-2	Htr	12.6	0.15	300	100	Osc $I_{g1} = 0.5$ ma $R_{g1} = 20,000$ ohms		
12BF6	Duplex-Diode Medium-Mu Triode	7BT	5-2	Htr	12.6	0.15	300	—	1.8▲	1.1▲	2.0▲
12BH7	Medium-Mu Twin Triode	9A	6-3	Htr	12.6 6.3	0.3 0.6	300 450	—	3.2▲	0.5 0.42	2.6▲
12BK6	Beam Power Amplifier	9BQ	6-3	Htr	12.6%	0.6%	250	250	13▲	5.0▲	0.6▲
12BK6	Duplex-Diode, High-Mu Triode	7BT	5-3	Htr	12.6	0.15	300	—	—	—	—
12BN6	Gated-Beam Discriminator	7DF	5-3	Htr	12.6	0.15	300%	100	$E_{c1} = 1.25$ volts rms*		
12BQ6-GA 12BQ6-GTA	Beam Power Amplifier	6AM	T-X 9-49 or 9-50	Htr	12.6%	0.6%	600%	175	—	—	—

Metal tubes are shown in bold-face type, miniature tubes in italics.

● Subminiature type.



Service	Plate Volts	Screen Volts	Neg Grid Volts	Plate Milli-am-peres	Screen Milli-am-peres	R_p Ohms	$G_{m'}$ μ mhos	μ Fac-tor	Load for Rated Out-put, Ohms	Power Out-put, Watts	Tube Type
TV Damp-er Service	Max d-c output current = 125 ma; max peak inverse voltage = 4400 volts; max peak current = 750 ma										12AX4-GT 12AX4-GTA
Class A Amplifier♦	100 250	—	1.0 2.0	0.5 1.2	—	80,000 82,500	1,250 1,600	100 100	—	—	18AX7
Class A Amplifier♦	250	—	4.0	3.0	—	25,000	1,750	44	—	—	18AY7
Class A Amplifier	250 100	—	$R_k = 200$ $R_k = 270$	10 3.7	—	10,900 15,000	5,500 4,000	60 60	—	—	18AZ7
Vertical Deflection Amplifier	150	—	17.5	34	—	1,030	6,300	6.5	—	—	12B4 12B4-A
	Max positive pulse plate voltage, $\Phi = 1000$ volts; max plate dissipation = 5.5 watts; max d-c cathode current = 30 ma										
Class A Amplifier	90	90	3.0	7.0	2.0	200,000	1,800	—	—	—	12B8-GT
Class A Amplifier	90	—	0	2.8	—	37,000	2,400	90	—	—	
Class A Amplifier	250 100	100 100	$R_k = 68$ $R_k = 68$	11 10.8	4.2 4.4	1,000,000 250,000	4,400 4,300	—	—	—	12BA6
Converter	250	100	1.0	3.8	10	1,000,000	950 #	—	—	—	12BA7
Class A Amplifier	250	100	3.0	9.0	3.5	700,000	2,000	—	—	—	12BD6
Converter	250 100	100 100	1.5 1.5	2.9 2.6	6.8 7.0	1,000,000 400,000	475 # 455 #	—	—	—	12BE6
Class A Amplifier	250	—	9.0	9.5	—	8,500	1,900	16	—	—	12BF6
Class A Amplifier♦	250	—	10.5	11.5	—	5,300	3,100	16.5	—	—	12BH7
Vertical Deflection Amplifier♦	Max positive pulse plate voltage, $\Phi = 1500$ volts; max plate dissipation = 3.5 watts; max c-c cathode current = 20 ma										
Class A Amplifier	250	250	5.0	35†	3.5†	100,000	8,500	—	6,500	3.5	12BK6
Class A Amplifier	250 100	—	2.0 1.0	1.2 0.5	—	62,500 80,000	1,600 1,250	100 100	—	—	12BK6
FM Limiter-Discriminator	285‡	100	$R_k = 200$ to 400	0.49	9.8	—	—	—	330000	—	12BN6
Horizontal Deflection Amplifier	250 80 150	150 0	22.5 0	55 225 125	2.1 2.5	20,000	5,500	—	—	—	12BQ6-GA 12BQ6-GTA
	Max positive pulse plate voltage, $\Phi = 6000$ volts; max plate dissipation = 11 watts; max screen dissipation = 2.5 watts; max d-c cathode current = 110 ma										

§ Approximate.

† Without external shield.

‡ Zero signal.

♦ Grids 3 and 5 are screen. Grid 4 is signal-input grid.

Conversion transconductance.

▲ Maximum.

▼ Grids 2 and 4 are screen. Grid 3 is signal-input grid.

✱ Screen supply voltage.

† Absolute maximum rating.

‡ Plate-to-plate.

♦ Per section.

© For both sections.

♦ Minimum.

† Heater warm-up time controlled for series-string service.

‡ Plate supply voltage.

Input plate.

▲ The duration of the pulse voltage must not exceed 15 percent of one scanning cycle.

— Section 1.

— Section 2.

— A resistor of 3 ohms must be put in series with heater.