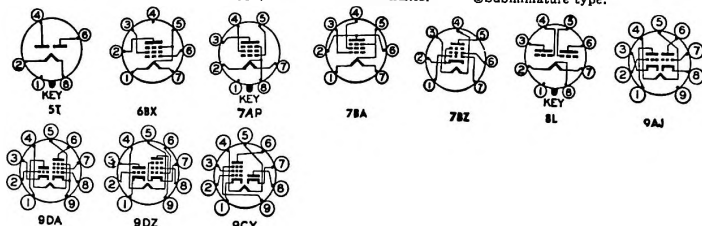


Tube Type	Classification by Construction	Base Connections	Outline Dwg	Type Cathode	Filament Volts	Filament Amp	Max Plate Volts	Max Screen Volts	Capacitance in Micromicrofarads		
									Input	Out-put	Grid-plate
3Q4	Power Amplifier Pentode	7BA	5-2	Fil	1.4	0.1	90	90	Parallel Filaments		
					2.8 DC	0.05	90	90	Series Filaments		
3Q5-GT	Beam Power Amplifier	7AP	9-11 or 9-41	Fil	1.4	0.1	110	110	Parallel Filaments		
					2.8 DC	0.05	110	110	Series Filaments		
3S4	Power Amplifier Pentode	7BA	5-2	Fil	1.4	0.1	90	67.5	Parallel Filaments		
					2.8 DC	0.05	90	67.5	Series Filaments		
3V4	Power Amplifier Pentode	6BX	5-2	Fil	1.4	0.1	90	90	Parallel Filaments		
					2.8 DC	0.05	90	90	Series Filaments		
4A6-G	Twin Triode Power Amplifier	8L	12-7	Fil	4.0 (2.0 DC)	0.06 (0.12)	90	—	—		
4BQ7-A	High-Frequency Twin Triode	9AJ	6-2	Htr	4.2V	0.6V	250	—	2.85i	1.35i	1.15
4BZ7	High-Frequency Twin Triode	9AJ	6-2	Htr	4.2V	0.6V	250	—	2.5i	1.35i	1.15
6AM8	Diode Sharp-Cutoff RF Pentode	9CY	6-2	Htr	4.7V	0.6V	300	150	6.0	3.4	0.015
									Diode Section		
6AN8	Triode-Pentode	9DA	6-2	Htr	4.7V	0.6V	300	150	Pentode Section		
							300	—	Triode Section		
6AQ6	Beam Power Amplifier	7BZ	5-3	Htr	4.7V	0.6V	250	250	Pentode Connection		
							250	—	Triode Connection (G ₁ & P tied)		
5AU4	Full-Wave High-Vacuum Rectifier	5T	T-X	Fil	5.0	4.5	Tube Voltage Drop: ♦ 5 v at 350 ma d-c				
5AV8	Triode-Pentode	9DZ	6-2	Htr	4.7V	0.6V	300	150	Pentode Section		
							300	—	Triode Section		
5AW4	Full-Wave High-Vacuum Rectifier	5T	T-X	Fil	5.0	4.0	Tube Voltage Drop: ♦ 46 v at 250 ma d-c				
5AX4-GT	Full-Wave, High-Vacuum Rectifier	5T	9-13	Fil	5.0	2.5	Tube Voltage Drop: ♦ 65 v at 175 ma d-c				
5AZ4	Full-Wave High-Vacuum Rectifier	5T	9-31	Fil	5.0	2.0	Tube Voltage Drop: ♦ 80 v at 125 ma d-c				
6BK7-A	High-Frequency Twin Triode	9AJ	6-2	Htr	4.7V	0.6V	300	—	3.0▲	1.0i 0.9,▲	1.8▲

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

③ Subminiature type.



Service	Plate Volts	Screen Volts	Neg Grid Volts	Plate Milli-am-peres	Screen Milli-am-peres	R _p Ohms	G _m μmhos	# Fac-tor	Load for Rated Out-put, Ohms	Power Out-put, Watts	Tube Type
Class A Amplifier	90	90	4.5	9.5†	2.1†	100,000§	2,150	—	10,000	0.27	3Q4
Class A Amplifier	90	90	4.5	7.7†	1.7†	120,000§	2,000	—	10,000	0.24	
Class A Amplifier	110	110	6.6	10†	1.4†	100,000§	2,200	—	8,000	0.40	3Q5-GT
Class A Amplifier	90	90	4.5	9.5†	1.3†	90,000§	2,200	—	8,000	0.27	
Class A Amplifier	110	110	6.6	8.5†	1.1†	110,000§	2,000	—	8,000	0.33	
Class A Amplifier	90	90	4.5	8.0†	1.0†	80,000§	2,000	—	8,000	0.23	
Class A Amplifier	90	67.5	7.0	7.4†	1.4†	100,000§	1,575	—	8,000	0.270	3S4
Class A Amplifier	67.5	67.5	7.0	7.2†	1.5†	100,000§	1,550	—	5,000	0.180	
Class A Amplifier	90	67.5	7.0	6.1†	1.1†	100,000§	1,425	—	8,000	0.235	
Class A Amplifier	67.5	67.5	7.0	6.0†	1.2†	100,000§	1,400	—	5,000	0.180	
Class A Amplifier	90	90	4.5	9.5†	2.1†	100,000§	2,150	—	10,000	0.27	3V4
Class A Amplifier	85	85	5.0	6.9†	1.5†	120,000§	1,975	—	10,000	0.25	
Class A Amplifier	90	90	4.5	7.7†	1.7†	120,000§	2,000	—	10,000	0.24	
Class A Amplifier ♦	90	—	1.5	1.2	—	28,000	900	25	—	—	4A6-G
Class A Amplifier ♦	150	—	R _k = 220	9.0	—	6,100§	6,400	39	—	—	4BQ7-A
Class A Amplifier ♦	150	—	R _k = 220	10	—	5,600§	6,800	38	—	—	4BZ7
Class A Amplifier Video Detector	200	150	R _k = 120	11.5	2.7	600,000§	7,000	—	—	—	6AM8
Max d-c output current = 5 ma; volt drop: 10 v at 50 ma d-c											
Class A Amplifier	200	150	R _k = 180	9.5	2.8	300,000§	6,200	—	—	—	6AN8
Class A Amplifier	200	—	6.0	13	—	5,750§	3,300	19	—	—	
Class A Amplifier	180	180	8.5	28†	3.0†	58,000§	3,700	—	5,500	2.0	6AQ6
Class A Amplifier	250	250	12.5	45†	4.5†	52,000§	4,100	—	5,000	2.5	
Class A Amplifier Vertical Deflection Amplifier	250	—	12.5	49.5	—	1,970§	4,800	9.5	—	—	
Max positive pulse plate voltage, E = 1,100 v; max plate dissipation = 9 watts; max d-c cathode current = 35 ma											
Full-Wave Rectifier	Max d-c output current = 325 ma; max peak inverse voltage = 1400 volts; rms supply voltage per plate = 400 volts; max peak current per plate = 1075 ma										
Class A Amplifier	200	150	R _k = 180	9.5	2.8	300,000§	6,200	—	—	—	5AU4
Class A Amplifier	200	—	6.0	13	—	5,750§	3,300	19	—	—	5AV8
Full-Wave Rectifier	Max d-c output current = 250 ma; max peak inverse voltage = 1550 volts; rms supply voltage per plate = 450 volts; max peak current per plate = 750 ma										
Full-Wave Rectifier	Max d-c output current = 175 ma; max peak inverse voltage = 1400 volts; max rms supply voltage per plate = 350 volts; max peak current per plate = 525 ma										5AX4-GT
Full-Wave Rectifier	Max d-c output current = 125 ma; max peak inverse voltage = 1400 volts; max rms supply voltage per plate = 350 volts; max peak current per plate = 375 ma										5AZ4
Class A Amplifier ♦	150	—	R _k = 56	18	—	4,600§	9,300	43	—	—	6BK7-A

† 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.

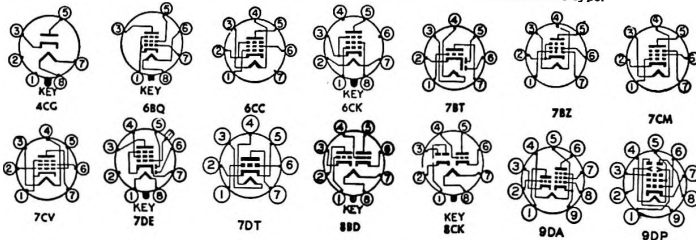
Ⓢ Section 2.

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

Tube Type	Classification by Construction	Base Connections	Outline Dwg	Type Cathode	Filament Volts	Filament Amp	Max Plate Volts	Max Screen Volts	Capacitance in Micromicrofarads		
									Input	Out-put	Grid-plate
6AN8	Triode-Pentode	9DA	6-2	Htr	6.3	0.45	300 300	150 —	Pentode Section Triode Section		
6AQ4	High-Mu Triode	7DT	5-2	Htr	6.3	0.3	250	—	8.5	0.2	2.5
6AQ6	Beam Power Amplifier	7BZ	5-3	Htr	6.3	0.45	250 250	250 —	Pentode Connection Triode Connection (G ₂ & P tied)		
6AQ6	Duplex-Diode High-Mu Triode	7BT	5-2	Htr	6.3	0.15	300	—	1.7	1.5	1.8
6AQ7-GT	Duplex-Diode High-Mu Triode	8CK	9-11 or 9-41	Htr	6.3	0.3	250	—	—	—	—
6AR5	Power Amplifier Pentode	6CC	5-3	Htr	6.3	0.4	250	250	—	—	—
6AR6	Beam Power Amplifier	6BQ	T-X	Htr	6.3	1.2	630	315	11.0▲	7.0▲	0.8▲
6AR7-GT	Twin-Diode, Remote-Cutoff Pentode	7DE	T-X	Htr	6.3	0.3	300	125	5.5▲	7.5▲	0.003▲
6AR8	Double Plate Sheet-Beam Tube	9DP	6-3	Htr	6.3	0.3	300	300	—	—	—
6AS6	Beam Power Amplifier	7CV	5-3	Htr	6.3	0.8	150	117	12▲	6.2▲	0.6▲
6AS6 6AS6-W	Dual-Control RF Pentode	7CM	5-1	Htr	6.3	0.175	180	140	4.0	3.0	0.02▲
6AS7-G	Low-Mu Twin Triode Power Amplifier	8BD	16-3	Htr	6.3	2.5	250	—	—	—	—
6AS8	Diode Sharp-Cutoff RF Pentode	9DS	6-2	Htr	6.3	0.45	300	150	Pentode Section Diode Section		
6AT6	Duplex-Diode High-Mu Triode	7BT	5-2	Htr	6.3	0.3	300	—	2.2▲	0.8▲	2.0▲
6AT8	Triode-Pentode Converter	9DW	6-2	Htr	6.3	0.45	250 250	250* —	Pentode Section Triode Section		
6AU4-GT	Half-Wave High-Vacuum Rectifier	4CG	9-44	Htr	6.3	1.8	Tube Voltage Drop: 25 v at 350 ma d-c				
6AU5-GT	Beam Power Amplifier	6CK	9-11 or 9-41	Htr	6.3	1.25	550	200	11.3▲	7.0▲	0.5▲

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

③ Subminiature type.



Service	Plate Volts	Screen Volts	Neg Grid Volts	Plate Milli-amperes	Screen Milli-amperes	R _p , Ohms	G _m , umhos	# Factor	Load for Rated Out-put, Ohms	Power Out-put, Watts	Tube Type
Class A Amplifier	200	150	R _k = 180	9.5	2.8	300,000	6,200	—	—	—	6AN8
Class A Amplifier	200	—	6.0	13	—	5,750	3,300	19	—	—	
Class A Amplifier	250	—	1.5	10	—	12,000	8,500	100	—	—	6AQ4
Class A Amplifier	180	180	8.5	29†	3.0†	58,000	3,700	—	5,500	2.0	6AQ6
Class A Amplifier	250	250	12.5	45†	4.5†	52,000	4,100	—	5,000	4.5	
Class A Amplifier	250	—	12.5	49.5	—	1,970	4,800	9.5	—	—	
Class A Amplifier	Max positive pulse plate voltage: 1100 v; max plate dissipation = 9 watts; max d-c cathode current = 35 ma										
Class A Amplifier	250	100	3.0	1.0	—	58,000	1,200	70	—	—	6AQ6
Class A Amplifier	250	—	1.0	0.8	—	61,000	1,150	70	—	—	
Class A Amplifier	250	100	2.0	2.3	—	44,000	1,600	79	—	—	6AQ7-GT
Class A Amplifier	250	—	2.0	1.1	—	64,000	1,250	—	—	—	
Class A Amplifier	250	250	18	32†	5.5†	68,000	2,300	—	7,600	3.4	6AR6
Class A Amplifier	250	250	16.5	34†	5.7†	65,000	2,400	—	7,000	3.2	
Class A Amplifier	300	300	36.0	58	4.0	22,000	4,300	—	—	—	6AR6
Class A Amplifier	250	100	2.0	7.0	1.8	1,200,000	2,500	—	—	—	6AR7-GT
Class A Amplifier	250	250	R _k = 390	10	0.4	—	4,000	—	—	—	6AR8
Color TV Synchronous Detector	(With plates tied together and deflectors (pins 1 and 2) grounded) Total voltage change on either deflector with an equal and opposite change on the other deflector required to switch the plate current from one plate to the other = 20 volts maximum.										
Class A Amplifier	150	110	8.5	35†	2.0†	—	5,600	—	4,500	2.2	6AS6
Class A Amplifier	120	120	2.0	5.2	3.5	110,000	3,200	E _{c3} = 0 volts	—	—	6AS6
Class A Amplifier	120	120	2.0	3.6	4.8	1,850	E _{c3} = -3 volts	—	—	—	6AS6-W
DC Amplifier	135	—	R _k = 250	125	—	280	7,000	2.0	—	—	6AS7-G
Class A Amplifier	200	150	R _k = 180	9.5	3.0	300,000	6,200	—	—	—	6AS8
Class A Amplifier	Max d-c output current = 5 ma; max peak inverse voltage = 330 volts; max peak current = 50 ma										
Class A Amplifier	250	100	3.0	1.0	—	58,000	1,200	70	—	—	6AT6
Class A Amplifier	250	—	1.0	0.8	—	54,000	1,300	70	—	—	
Class A Amplifier	250	150	R _k = 200	7.7	1.6	750,000	4,600	—	—	—	6AT8
Class A Amplifier	100	—	R _k = 100	8.5	—	6,900	5,800	40	—	—	
TV Damp-er Service	Max d-c output current = 175 ma; max peak inverse voltage = 4,500 volts; max peak current = 1050 ma.										
Horizontal Deflection Amplifier	115	175	20	60	6.8	6,000	5,600	—	—	—	6AU5-GT
	60	175	0	210	25	—	—	—	—	—	
	Max positive pulse plate voltage: 5500 v; max plate dissipation = 1.0 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.

§ Conversion transconductance.

¶ Maximum.

‡ Grids 2 and 4 are screen. Grid 3 is signal.

§ Screen supply voltage.

¶ Absolute maximum rating.

‡ Plate-to-plate.

▲ Per section.

③ 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.

