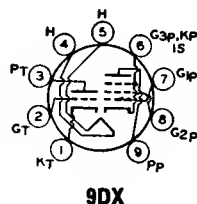


6AW8A

8AW8A

**HIGH-MU TRIODE—
SHARP-CUTOFF PENTODE**

Miniature type used in television receiver applications. The pentode unit is used as an if amplifier, video amplifier, agc amplifier, or reactance tube. The triode unit is used in low-frequency oscillator, sync-separator, sync-clipper, and phase-splitter circuits. Outlines section, 6E; requires miniature 9-contact socket. Type 8AW8A is identical with type 6AW8A except for heater ratings.



	6AW8A	8AW8A	
Heater Voltage (ac/dc)	6.3	8.4	volts
Heater Current	0.6	0.45	ampere
Heater Warm-up Time (Average)	11	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
Triode Unit:	Unshielded	Shielded	
Grid to Plate	2.2	2.2	pF
Grid to Cathode, Pentode Cathode, Pentode Grid No.3, Internal Shield, and Heater	3.2	3.4	pF
Plate to Cathode, Pentode Cathode, Pentode Grid No.3, Internal Shield, and Heater	1.8	3	pF
Pentode Unit:			
Grid No.1 to Plate	0.06 max	0.05 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	10	10	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	3.6	4.5	pF
Pentode Grid No.1 to Triode Plate	0.008 max	0.005 max	pF
Pentode Plate to Triode Plate	0.15 max	0.025 max	pF

■ With external shield connected to pins 4 and 5.

Class A₁ Amplifier**MAXIMUM RATINGS (Design-Maximum Values)**

	Triode Unit	Pentode Unit	
Plate Voltage	330	330	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	330	volts
Grid-No.2 Voltage	See curve	page 98	
Grid-No.1 (Control-Grid) Voltage, positive-bias value	0	0	volts
Plate Dissipation	1.1	3.75	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	1.1	watts
For grid-No.2 voltages between 165 and 330 volts	See curve	page 98	

CHARACTERISTICS

Plate Supply Voltage	200	150	volts
Grid-No.2 Supply Voltage	—	150	volts
Grid-No.1 Voltage	—2	—	volts
Cathode-Bias Resistor	—	150	ohms
Amplification Factor	70	—	

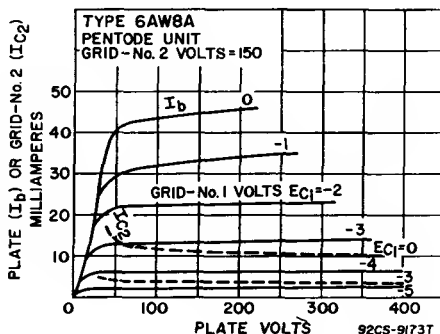
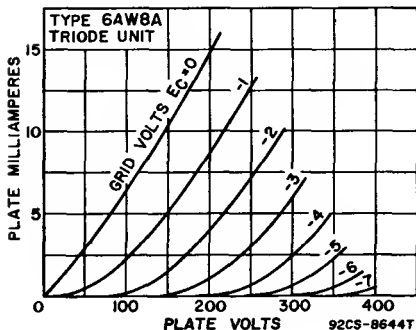
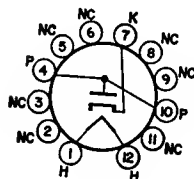


Plate Resistance (Approx.)	—	0.2	megohm
Transconductance	4000	9500	μ mhos
Plate Current	4	15	mA
Grid-No.2 Current	—	3.5	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μ A	—5	—8	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.5	0.25	megohm
For cathode-bias operation	1	1	megohm



12BL

HALF-WAVE VACUUM RECTIFIER

6AX3

12AX3, 17AX3

Duodecar type used as damper tube in horizontal-deflection circuits of television receivers. Outlines section, 8C; requires 12-contact socket. Socket terminals 5, 6, 8, and 9 should not be used as tie points. This tube, like other power-handling tubes, should be adequately ventilated. Types 12AX3 and 17AX3 are identical with type 6AX3 except for heater ratings.

	6AX3	12AX3	17AX3	
Heater Voltage (ac/dc)	6.3	12.6	16.8	volts
Heater Current	1.2	0.6	0.45	amperes
Heater Warm-up Time (Average)	—	11	11	seconds
Direct Interelectrode Capacitances:				
Plate to Cathode and Heater			5.5	pF
Cathode to Plate and Heater			7.5	pF
Heater to Cathode			2.8	pF

Damper Service

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage#	5000	volts	
Peak Plate Current	1000	mA	
Average Plate Current	165	mA	
Plate Dissipation	5.3	watts	
Heater-Cathode Voltage:			
Peak value	+300	—5000	volts
Average value	+100	—900	volts

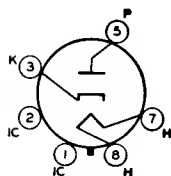
CHARACTERISTICS

Tube Voltage Drop for plate current of 250 mA	32	volts
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

Refer to chart at end of section.

6AX4GT



4CG

HALF-WAVE VACUUM RECTIFIER

6AX4GTB

12AX4GTB, 17AX4GTA,
25AX4GT

Glass octal type used as damper tube in horizontal-deflection circuits of color and black-and-white television receivers. Outlines section, 13D; requires octal socket. May be supplied with pin No. 1 omitted. Socket terminals 1, 2, 4, and 6 should not be used as tie points. This tube, like other power-handling tubes, should be adequately ventilated. Types 12AX4GTB, 17AX4GTA, and 25AX4GT are identical with type 6AX4GTB except for heater ratings.

	6AX4- GTB	12AX4- GTB	17AX4- GTA	25AX4GT	
Heater Voltage (ac/dc)	6.3	12.6	16.8	25	volts
Heater Current	1.2	0.6	0.45	0.3	amperes
Heater Warm-up Time (Average)	—	11	11	11	seconds
Direct Interelectrode Capacitances (Approx.):					
Cathode to Plate and Heater				8.5	pF
Plate to Cathode and Heater				5	pF
Heater to Cathode				4	pF