

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, Instantaneous Value

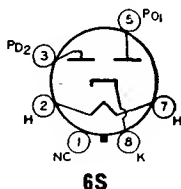
Tube Voltage Drop for plate current of 250 mA	32	volts
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

6AX5GT

FULL-WAVE VACUUM RECTIFIER

Glass octal type used in power supplies of radio equipment having moderate dc requirements. Outlines section, 13D; requires octal socket. This type may be supplied with pin No. 1 omitted. This tube, like other power-handling tubes, should be adequately ventilated. Heater: volts (ac), 6.3; amperes, 1.2.



Full-Wave Rectifier

MAXIMUM RATINGS (Design-Center Values)

Peak Inverse Plate Voltage	1250	volts
Peak Plate Current (Per Plate)	375	mA
Hot-Switching Transient Plate Current:		
For duration of 0.2 second maximum	2.6	amperes
AC Plate Supply Voltage (Per Plate, rms)	See Rating Chart	
Average Output Current (Per Plate, rms)	See Rating Chart	
Peak Heater-Cathode Voltage	±450	volts

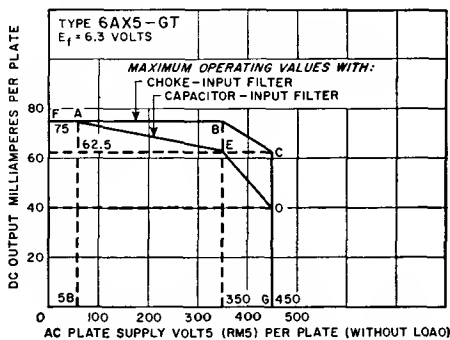
TYPICAL OPERATION WITH CAPACITOR INPUT TO FILTER

AC Plate-to-Plate Supply Voltage (rms)	700	900	volts
Filter Input Capacitor*	10	10	μF
Effective Plate-Supply Impedance Per Plate	50	105	ohms
DC Output Voltage at Input to Filter (Approx.):			
At half-load current of	62.5 mA	395	volts
	40 mA	—	540 volts
At full-load current of	125 mA	350	volts
	80 mA	—	490 volts
Voltage Regulation (Approx.):			
Half-load to full-load current	45	50	volts

TYPICAL OPERATION WITH CHOKE INPUT TO FILTER

AC Plate-to-Plate Supply Voltage (rms)	700	900	volts
Filter Input Choke	10#	10##	henries
DC Output Voltage at Input to Filter (Approx.):			
At half-load current of	75 mA	270	volts
	62.5 mA	—	365 volts
At full-load current of	150 mA	250	volts
	125 mA	—	350 volts

RATING CHART



Voltage Regulation (Approx.):

Half-load to full-load current	20	15	volts
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* Higher values of capacitance than indicated may be used but the effective plate-supply impedance may have to be increased to prevent exceeding the maximum rating for hot-switching transient plate current.

This value is adequate to maintain optimum regulation provided the load current is not less than 30 mA. For load currents less than 30 mA, a larger value of inductance is required for optimum regulation.

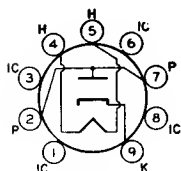
This value is adequate to maintain optimum regulation provided the load current is not less than 35 mA. For load currents less than 35 mA, a larger value of inductance is required for optimum regulation.

Refer to chart at end of section.

6AX8

Refer to chart at end of section.

6AY3



9HP

Socket terminals 1, 3, 6, and 8 should not be used as tie points. It is especially important that these tubes, like other power-handling tubes, be adequately ventilated. Types 12AY3A and 17AY3A are identical with type 6AY3B except for heater ratings.

HALF-WAVE
VACUUM RECTIFIER

6AY3B

12AY3A, 17AY3A

Novar type used as damper tubes in horizontal-deflection circuits of black-and-white television receivers.

Outlines section, 30B; requires novar 9-contact socket.

Heater Voltage (ac/dc)	6AY3B	12AY3A	17AY3A	volts
Heater Current	6.3	12.6	16.8	
Heater Warm-up Time (Average)	1.2	0.6	0.45	amperes
Direct Interelectrode Capacitances (Approx.):	—	11	11	seconds
Plate to Cathode and Heater			6.5	pF
Cathode to Plate and Heater			9	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	1100	mA
Average Plate Current	175	mA
Plate Dissipation	6.5	watts
Heater-Cathode Voltage:		
Peak value	+300	volts
Average value	+100	volts

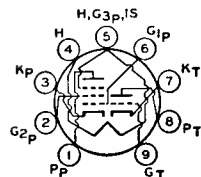
Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

Refer to chart at end of section.

6AY11

MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE

6AZ8



9ED

Miniature type used in color and black-and-white 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, 6B; requires miniature 9-contact socket.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.45	ampere
Heater-Cathode Voltage:▲		
Peak value	±200 max	volts
Average value	100 max	volts