

Damper Service

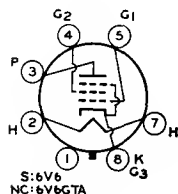
For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Center Values)

Peak Inverse Plate Voltage# (Absolute Maximum)	6000†	volts
Peak Plate Current	800	mA
Average Plate Current	135	mA
Heater-Cathode Voltage:		
Peak value	+300	volts
Average value	+100	volts

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

† Under no circumstances should this absolute value be exceeded.



7AC

7AC
Metal type 6V6 and glass octal type 6V6GTA are used as output amplifiers in automobile, battery-operated, and other receivers in which reduced plate-current drain is desirable. Outlines section, 2B and 13D, respectively, require octal socket. These tubes are equivalent in performance to type 6AQ5A. Refer to type 6AQ5A for average plate characteristic curves. Types 5V6GT and 12V6GT are identical with type 6V6GTA except for heater ratings.

	5V6GT	6V6	6V6GTA	12V6GT	
Heater Voltage (ac/dc)	4.7	6.3	6.3	12.6	volts
Heater Current	0.6	0.45	0.45	0.225	ampere
Heater Warm-up Time (Average)	11	—	11	—	seconds
Heater-Cathode Voltage:					
Peak value	±200 max	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx.):			6V6*	6V6GTA	
Grid No.1 to Plate			0.3	0.7	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3			10	9	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3			11	7.5	pF

* With shell connected to cathode.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	350	volts
Grid-No.2 (Screen-Grid) Voltage	315	volts
Plate Dissipation	14	watts
Grid-No.2 Input	2.2	watts

TYPICAL OPERATION

Plate Voltage	180	250	315	volts
Grid-No.2 Voltage	180	250	225	volts
Grid-No.1 (Control-Grid) Voltage	-8.5	-12.5	-13	volts
Peak AF Grid-No.1 Voltage	8.5	12.5	13	volts
Zero-Signal Plate Current	29	45	34	mA
Maximum-Signal Plate Current	30	47	35	mA
Zero-Signal Grid-No.2 Current	3	4.5	2.2	mA
Maximum-Signal Grid-No.2 Current	4	7	6	mA
Plate Resistance (Approx.)	50000	50000	80000	ohms
Transconductance	3700	4100	3750	μmhos
Load Resistance	5500	5000	8500	ohms
Total Harmonic Distortion	8	8	12	per cent
Maximum-Signal Power Output	2	4.5	5.5	watts

CHARACTERISTICS (Triode Connection)*

Plate Voltage	250	volts
Grid-No.1 (Control-Grid) Voltage	-12.5	volts
Amplification Factor	9.8	
Plate Resistance (Approx.)	1960	ohms
Transconductance	5000	μmhos
Plate Current	49.5	mA
Grid-No.1 Voltage (Approx.) for plate current of 0.5 mA	-36	volts

* Grid No.2 connected to plate.

Push-Pull Class A₁ Amplifier**MAXIMUM RATINGS** (Same as for class A₁ amplifier)**TYPICAL OPERATION** (Values are for two tubes)

Plate Voltage	250	285	volts
Grid-No.2 Voltage	250	285	volts
Grid-No.1 (Control-Grid) Voltage	-15	-19	volts
Peak AF Grid-No.1-to-Grid-No.1 Voltage	30	38	volts
Zero-Signal Plate Current	70	70	mA
Maximum-Signal Plate Current	79	92	mA
Zero-Signal Grid-No.2 Current	5	4	mA
Maximum-Signal Grid-No.2 Current	13	13.5	mA
Effective Load Resistance (Plate-to-Plate)	10000	8000	ohms
Total Harmonic Distortion	5	3.5	per cent
Maximum-Signal Power Output	10	14	watts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm

Vertical-Deflection Amplifier (Triode Connection)[†]

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

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Voltage	350	volts
Peak Positive-Pulse Plate Voltage [#]	1200	volts
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage	275	volts
Peak Cathode Current	115	mA
Average Cathode Current	40	mA
Plate Dissipation	10	watts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance, for cathode-bias operation	2.2	megohms
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[†] Grid No.2 connected to plate.[#] Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).**6V6GT**

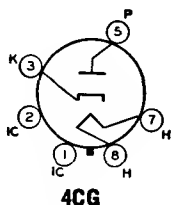
Refer to chart at end of section.

6V7G

Refer to chart at end of section.

6W4GT**HALF-WAVE
VACUUM RECTIFIER**

Glass octal type used as damper tube in television receivers. Outlines section, 13D; requires octal socket. This type 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. Power-rectifier operation of this type is not recommended.



Heater Voltage (ac)	6.3	volts
Heater Current	1.2	amperes
Direct Interelectrode Capacitances (Approx.):		
Plate to Cathode and Heater	6	pF
Cathode to Plate and Heater	13	pF
Heater to Cathode	7	pF

Damper Service

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

MAXIMUM RATINGS (Design-Center Values)

Peak Inverse Plate Voltage (Absolute Maximum) [#]	3850	volts
Peak Plate Current	750	mA
Average Plate Current	125	mA
Plate Dissipation	3.5	watts
Heater-Cathode Voltage:		
Peak value	+300 —2300	volts
Average value	+100 —500	volts

CHARACTERISTICS, Instantaneous Value

Tube Voltage Drop for plate current of 250 mA	21	volts
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[#] Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).