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

▲ 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.

6V6GTY Refer to chart at end of section.

6V7G Refer to chart at end of section.

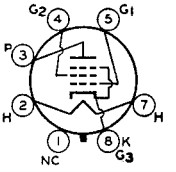
6W4GT Refer to chart at end of section.

6W6GT

12W6GT

BEAM POWER TUBE

Glass octal type used in the audio output stage of radio and color and black-and-white television receivers. Triode-connected, it is used as a vertical-deflection amplifier in television receivers. **Outlines section,** 13D; requires octal socket. This type may be supplied with pin No.1 omitted. Type 12W6GT is identical with type 6W6GT except for heater ratings.



7AC

	6W6GT	12W6GT	
Heater Voltage (ac/dc)	6.3	12.6	volts
Heater Current	1.2	0.6	ampere
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	+200 max −300 max	volts
Average value	100 max	+100 max −200 max	volts
Direct Interelectrode Capacitances (Approx.):			
Grid No.1 to Plate		0.8	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3		15	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3		9	pF

Class A_1 Amplifier

MAXIMUM RATINGS (Design-Maximum Values)			
Plate Voltage		330	volts
Grid-No.2 (Screen-Grid) Voltage		165	volts
Plate Dissipation		12	watts
Grid-No.2 Input		1.35	watts
TYPICAL OPERATION			
Plate Supply Voltage	110	200	volts
Grid-No.2 Supply Voltage	110	125	volts
Grid-No.1 (Control-Grid) Voltage	−7.5	—	volts
Cathode-Bias Resistor	—	180	ohms
Peak AF Grid-No.1 Voltage	7.5	8.5	volts
Zero-Signal Plate Current	49	46	mA
Maximum-Signal Plate Current	50	47	mA
Zero-Signal Grid-No.2 Current	4	2.2	mA
Maximum-Signal Grid-No.2 Current	10	8.5	mA
Plate Resistance (Approx.)	13000	28000	ohms

Transconductance	8000	8000	μmhos
Load Resistance	2000	4000	ohms
Total Harmonic Distortion (Approx.)	10	10	per cent
Maximum-Signal Power Output	2.1	3.8	watts
CHARACTERISTICS (Triode Connection)*			
Plate Voltage		225	volts
Grid-No.1 Voltage		—30	volts
Amplification Factor		6.2	
Plate Resistance (Approx.)		1600	ohms
Transconductance		3800	μmhos
Plate Current		22	mA
Grid No.1 Voltage (Approx.) for plate current of 0.5 mA		—42	volts
MAXIMUM CIRCUIT VALUES			
Grid-No.1 Circuit Resistance:			
For fixed-bias operation		0.1	megohm
For cathode-bias operation		0.5	megohm

* Grid No.2 connected to plate.

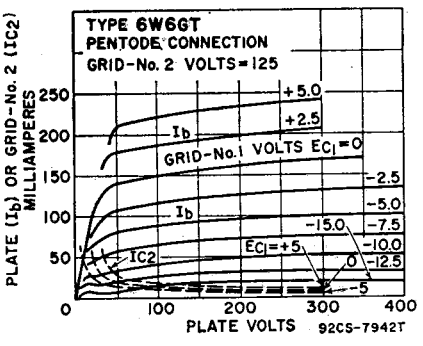
Vertical-Deflection Amplifier

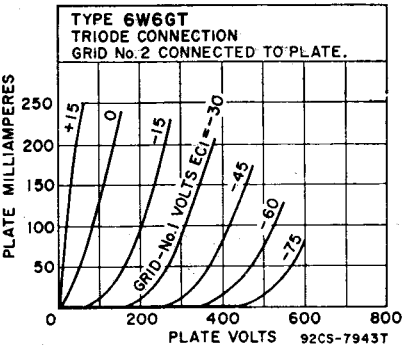
For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)	Triode Connection*	Pentode Connection	
DC Plate Voltage	330	330	volts
Peak Positive-Pulse Plate Voltage#	1200	1500	volts
DC Grid No.2 (Screen-Grid) Voltage	—	165	volts
Peak Negative-Pulse Grid-No.1 Voltage	275	275	volts
Peak Cathode Current	195	195	mA
Average Cathode Current	65	65	mA
Plate Dissipation	8.5	8	watts
Grid-No.2 Input	—	1.2	watts
MAXIMUM CIRCUIT VALUE			
Grid-No.1-Circuit Resistance, for cathode-bias operation	2.2	2.2	megohms

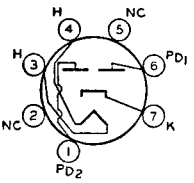
* Grid No.2 connected to plate.

Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).





Refer to chart at end of section. **6W7G**



5BS

FULL-WAVE VACUUM RECTIFIER

6X4

12X4

Miniature type used in power supply of automobile and ac-operated radio receivers. Equivalent in performance to larger type 6X5GT. **Outlines section,** 5D; requires miniature 7-contact socket. This tube, like other power-handling tubes, should be adequately ventilated. For discussion of Rating Chart and Operation Characteristics, refer to **Interpretation of Tube Data**. Type 12X4 is identical with type 6X4 except for heater ratings.