

Triode*
Connection

Pentode Connection

Grid-No.1 Voltage for plate current of 1 mA	—	—125	—	—60	volts
Amplification Factor	2.8	—	—	—	

* Grid No.3 and grid No.2 connected, respectively, to cathode and plate at socket.

† This value may be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

Horizontal-Deflection Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)

Plate Supply Voltage	990	volts
Peak Positive-Pulse Plate Voltage†	7500	volts
Peak Negative-Pulse Plate Voltage	1100	volts
Grid-No.3 Voltage*	75	volts
Grid-No.2 Voltage	220	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	1200	mA
Average Cathode Current	350	mA
Plate Dissipation*	30	watts
Plate Dissipation (Temporary overload)†	200	watts
Grid-No.2 Input	5	watts
Envelope Temperature (At hottest point)	250	°C

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

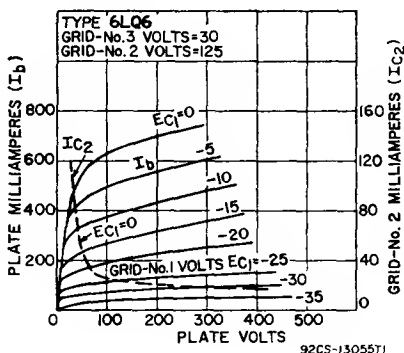
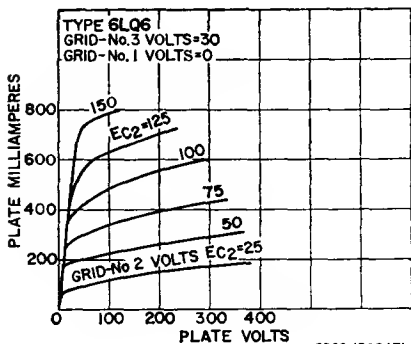
For grid-No.1-resistor-bias operation	0.47	megohm
For plate-pulsed operation (horizontal-deflection circuits only)	10	megohms

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

† For horizontal-deflection service, a positive voltage may be applied to grid-No.3 to minimize "snivets" interference in both vhf and uhf television receivers. A typical value is 30 volts.

* A bias resistor or other means is required to protect the tube in absence of excitation.

† Total continuous or accumulated time not to exceed 40 seconds.

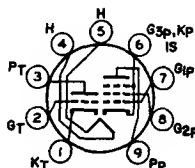


6LQ8

11LQ8

MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE

Miniature type used in color and black-and-white television receiver applications. The pentode unit is used as a video output tube. The triode unit is used in sync separator and sound-if circuits. Outlines section, 6E; requires miniature 9-contact socket. Type 11LQ8 is identical with type 6LQ8 except for heater ratings.



9DX

Heater Voltage (ac/dc)	6LQ8	11LQ8	
Heater Current	6.3	10.9	volts
Heater Warm-up Time	0.7	0.45	ampere
Heater-Cathode Voltage:		11	seconds
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
Triode Unit:			
Grid to Plate		2.8	pF
Grid to Triode Cathode, Pentode Cathode, Heater, Pentode			
Grid No.3, and Internal Shield		4.2	pF
Plate to Triode Cathode, Pentode Cathode, Heater, Pentode			
Grid No.3, and Internal Shield		2.4	pF
Pentode Unit:			
Grid No.1 to Plate		0.12 max	pF
Grid No.1 to Cathode Heater, Grid No.2, Grid No.3, and			
Internal Shield		14	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and			
Internal Shield		4.8	pF
Triode Grid to Pentode Plate		0.015 max	pF
Pentode Plate to Triode Plate		0.17 max	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

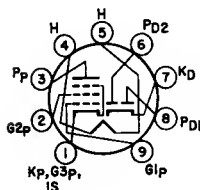
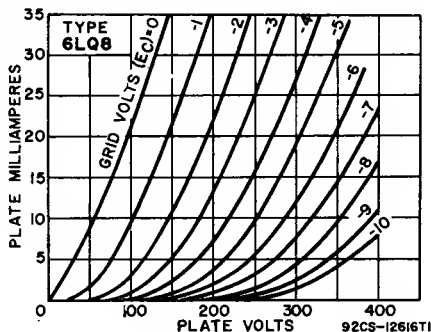
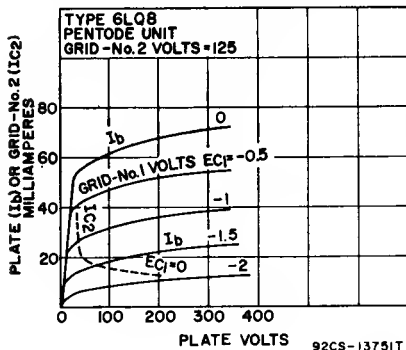
Plate Voltage	Triode Unit	Pentode Unit	volts
Grid-No.2 (Screen-Grid) Supply Voltage	300	300	volts
Grid-No.2 Voltage	—	300	See curve page 98
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volts
Plate Dissipation	2	5	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 150 volts	—	1	watts
For grid-No.2 voltages between 150 and 300 volts	—	See curve page 98	

CHARACTERISTICS

Plate Supply Voltage	Triode Unit	Pentode Unit	volts
Grid-No.2 Supply Voltage	125	125	200
Cathode-Bias Resistor	—	125	125
Amplification Factor	68	82	68
Plate Resistance (Approx.)	46	—	—
Transconductance	4400	55000	75000
Plate Current	10400	21000	23000
Grid-No.2 Current	15	16.5	20
Grid-No.1 Voltage (Approx.) for plate current	—	3.1	3.5
of 100 μ A	—6	—4.2	—4.2

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:	Triode Unit	Pentode Unit	megohm
For fixed-bias operation	0.5	0.1	megohm
For cathode-bias operation	1	0.25	megohm



9RL

TWIN DIODE—
SHARP-CUTOFF PENTODE6LT8
8LT8

Miniature type used in television receiver applications. The pentode unit is used in low-frequency horizontal-oscillator applications. The diode units are used in horizontal afc discriminator circuits. Outlines section, 6B; requires miniature 9-contact socket. Type 8LT8 is identical with type 6LT8 except for heater ratings.