

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Plate Voltage (Max.)	330	330 Volts
Grid No. 2 Supply Voltage (Max.)	—	330 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Plate Dissipation (Max.) ⁽²⁾	2.0	4.0 Watts
Grid No. 2 Dissipation (Max.)	—	1.1 Watts
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	0.5	0.25 Megohm
Cathode Bias (Max.)	1.0	1.0 Megohm

Control grid to cathode spacing of the pentode section of this type is of such low order of magnitude as to preclude the use of voltage between these elements of more than 50 volts dc or peak ac in commercial tube checkers and shorts indicating devices, particularly where mechanical excitation of the tube is employed.

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	125	200 Volts
Grid No. 2 Voltage	—	100 Volts
Grid No. 1 Voltage	0	0 Volt
Cathode Bias Resistor	68	82 Ohms
Plate Current	13	17 Ma
Grid No. 2 Current	—	3.5 Ma
Transconductance	5000	20,000 μ mhos
Amplification Factor	30	—
Plate Resistance (Approx.)	6000	50,000 Ohms
E _{c1} for I _b = 100 μ a (Approx.)	—	-5 Volts
E _c for I _b = 20 μ a (Approx.)	-10	— Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS (Pentode Section)⁽¹⁾

E_b = 50 V, E_{c2} = 100 V and E_{c1} = 0 V

I_b = 55 Ma and I_{c2} = 18 Ma

NOTES:

- (1) Applied for short interval (2 Sec. Max.) so as not to damage tube.
- (2) Maximum total plate dissipation, both plates, should not exceed 5.0 watts.

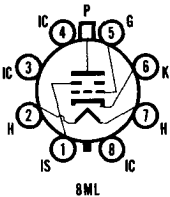
Color Television Type

SHUNT REGULATOR

6LC6

Beam Power Triode

Construction	Octal T-12
Base	Octal 8 Pin, B8-70 or B8-118
Top Cap	C1-1 or C1-34
Basing ⁽¹⁾	8ML
Outline	12-36
Maximum Diameter	1.562 In.
Maximum Seated Height	4.438 In.
Maximum Overall Height	5.000 In.



ELECTRICAL DATA

HEATER OPERATION

Heater Voltage	6.3 Volts
Heater Current	200 Ma
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode ⁽²⁾	450 Volts
Heater Positive with Respect to Cathode	Not Recommended

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid to Plate: (g to P)	1.0 Pf
Input: g to (h + k)	2.6 Pf
Output: p to (h + k)	1.0 Pf

RATINGS (Design Maximum Rating System)

Plate Supply Voltage, Unregulated (Max.)	60,000 Volts
Plate Voltage (Max.)	27,000 Volts
Negative DC Grid Voltage (Max.)	135 Volts
Peak Negative Grid Voltage (Max.) ⁽²⁾	440 Volts
Plate Dissipation (Max.)	40 Watts
DC Plate Current (Max.)	1.6 Ma
Grid Circuit Resistance (Max.)	3.0 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

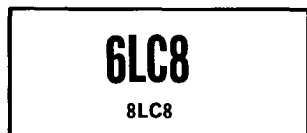
Unregulated DC Supply Voltage	36,000 Volts
Equivalent Resistance of Unregulated Supply	11 Megohms
DC Reference Voltage	200 Volts
Equivalent Resistance of Reference Supply	1000 Ohms
Effective Grid-Plate Transconductance	200 μ mhos
DC Plate Current for Zero Load Current	1000 μ a
DC Plate Current for Load Current of 1 Ma	45 μ a
Regulated DC Output Voltage at Zero Load Current	25,000 Volts
Regulated DC Output Voltage at Load Current of 1 Ma	24,500 Volts

NOTES:

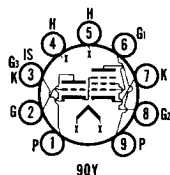
- (1) Shield connected directly to ground to minimize the effects of a momentary arc within the tube.
- (2) Peak value for duration of 20 seconds maximum during equipment warm-up.
- (3) Sufficient impedance (1000 ohms is suggested) should be in series with the cathode to limit the cathode current under prolonged heater-cathode short-circuit conditions to 450 Ma. This protective impedance will minimize the danger of heater burnout in case of a momentary heater-cathode arc within the tube.
- (4) With flyback transformer high-voltage supply.

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated higher than 16,000 volts.

**High Mu Triode and Sharp Cutoff Pentode**

Construction Miniature T-6½
 Base Button 9 Pin, E9-1
 Basing 9QY
 Outline 6-3
 Maximum Diameter 0.875 In.
 Maximum Seated Height 2.375 In.
 Maximum Overall Height 2.625 In.

**ELECTRICAL DATA
HEATER OPERATION**

	8LC8	6LC8
Heater Voltage	8.4	6.3 Volts
Heater Current	450	600 Ma
Heater Warm-up Time	11	11 Seconds
Maximum Heater-Cathode Voltage		
Heater Negative with Respect to Cathode		
Total DC and Peak		200 Volts
Heater Positive with Respect to Cathode		
DC		100 Volts
Total DC and Peak		200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)**Triode Section**

Grid to Plate	2.2 Pf
Input: g to (k + h + 1S + g3)	2.8 Pf
Output: p to (k + h + 1S + g3)	2.2 Pf

Pentode Section

Grid No. 1 to Plate	0.1 Pf
Plate to (g3 + Tk + 1S)	3.4 Pf
Grid No. 1 to (g3 + Tk + 1S)	0.36 Pf
Grid No. 3, Triode Cathode and 1S to (Pp + Pk + g2 + Pg1 + h)	12.5 Pf

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Plate Voltage (Max.)	300	300 Volts
Peak Positive Pulse Plate Voltage (Max.) ⁽¹⁾	—	600 Volts
Grid No. 2 Supply Voltage (Max.)	—	300 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 3 Voltage (Max.)	—	0 Volt
Negative Grid No. 3 Voltage (Max.)	—	100 Volts
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Negative Grid No. 1 Voltage (Max.)	50	50 Volts