

DC Cathode Current (Max.)	315 Ma
Peak Cathode Current (Max.)	1100 Ma
Grid No. 1 Circuit Resistance	
With Feedback-Type High Voltage Regulation (Max.)	1.2 Megohms
With Shunt-Type High Voltage Regulation (Switching Mode) (Max.) ..	10.0 Megohms
Beam Plate Circuit Resistance (Max.)	0 Ohms
Bulb Temperature (Max.) ⁽⁴⁾	200 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	5000	45	50	150 Volts
Beam Plates	Connected to Cathode at Socket			
Screen Voltage	110	160	110	110 Volts
Grid No. 1 Voltage	—	0	—	-20 Volts
Plate Resistance (Approx.)	—	—	—	6600 Ohms
Transconductance	—	—	—	13,400 μ mhos
Plate Current	—	900 ⁽⁴⁾	560 ⁽⁴⁾	105 Ma
Screen Current	—	110 ⁽⁴⁾	46 ⁽⁴⁾	2.0 Ma
Grid No. 1 Voltage (Approx.)	—	—	—	—
I _b = 1.0 Ma	-125	—	—	-40 Volts
Triode Amplification Factor ⁽⁵⁾	—	—	—	4.0

NOTES:

- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) In stages operating with grid-leak bias, an adequate cathode-bias resistor or other suitable means is required to protect the tube in the absence of excitation.
- (3) Measured using a thermocouple attached to a 0.1-inch wide phosphor-bronze ring placed at the hottest location on the bulb.
- (4) Values measured by a method involving a recurrent waveform such that the plate and screen dissipation will be kept within ratings in order to prevent damage to the tube.
- (5) Triode connection (screen tied to plate) with Eb = Ec2 = 125 volts, and Ec1 = -25 volts.

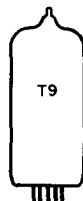
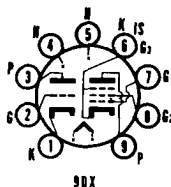
6LB8

10LB8

Color Television Type

**VOLTAGE AMPLIFIER (T)
VIDEO AMPLIFIER (P)****Medium Mu Triode and
Sharp Cutoff Pentode**

Construction	9T-9
Base	Button 9 Pin, E9-68
Basing	9DX
Outline	9-69
Maximum Diameter	1.188 In.
Maximum Seated Height	2.320 In.
Maximum Overall Height	2.630 In.

**ELECTRICAL DATA
HEATER OPERATION**

	10LB8	6LB8
Heater Voltage	10.2	6.3 Volts
Heater Current	450	725 Ma
Heater Warm-up Time	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	2.8 Pf
Input: g to (h + Tk + Pk, g3, IS)	1.9 Pf
Output: p to (h + Tk + Pk, g3, IS)	1.8 Pf

Pentode Section

Grid No. 1 to Plate (Max.)	0.10 Pf
Input: g1 to (h + Pk, g3, IS + g2)	12 Pf
Output: p to (h + Pk, g3, IS + g2)	3.0 Pf

Coupling

Triode Grid to Pentode Plate (Max.)	0.02 Pf
Pentode Grid No. 1 to Triode Plate (Max.)	0.004 Pf
Pentode Plate to Triode Plate (Max.)	0.13 Pf

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.

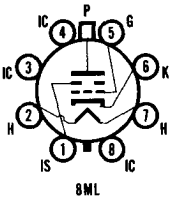
Color Television Type

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