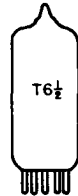
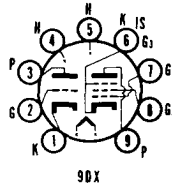


Color Television Type

**SYNC SEP./CLIPPER (T)
VIDEO AMPLIFIER (P)****6EB8****8EB8, 10EB8****High Mu Triode and
Sharp Cutoff Pentode**

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

**ELECTRICAL DATA****HEATER OPERATION**

	10EB8	8EB8	6EB8
Heater Voltage.....	10.5	8.0	6.3 Volts
Heater Current	450	600	750 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	4.4 Pf
Input: g to (h + k).....	2.4 Pf
Output: p to (h + k)	0.36 Pf

Pentode Section

Grid No. 1 to Plate (Max.).....	0.1 Pf
Input: g1 to (h + k + g2 + g3 + IS).....	11 Pf
Output: p to (h + k + g2 + g3 + IS).....	4.2 Pf

Coupling

Triode Grid to Pentode Plate (Max.)	0.018 Pf
Pentode Grid No. 1 to Triode Plate (Max.)	0.005 Pf
Pentode Plate to Triode Plate (Max.)	0.17 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.)	1.0	5.0 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

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	250	200 Volts
Grid No. 2 Voltage	—	125 Volts
Grid No. 1 Voltage	—2	— Volts
Cathode Bias Resistor	—	68 Ohms
Plate Current	2	25 Ma
Grid No. 2 Current	—	7 Ma
Transconductance	2700	12,500 μmhos
Amplification Factor	100	—
Plate Resistance (Approx.)	37,000	75,000 Ohms
Ec1 for Ib = 100 μa (Approx.).....	—	—9 Volts
Ec1 for Ib = 20 μa (Approx.).....	—5	— Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS (Pentode Section)

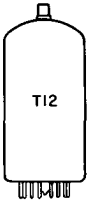
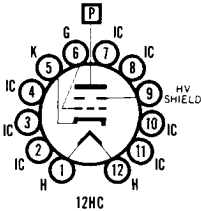
Eb = 45 Volts, Ec2 = 125 Volts and Ec1 = 0 Volt
 Ib = 40 Ma and Ic2 = 15 Ma

6EF4

SHUNT REGULATOR

Beam Power Triode

Construction.....Compactron T-12
Base Button 12 Pin, E12-74
Top Cap C1-34
Basing 12HC
Outline 12-90
Maximum Diameter 1.563 In.
Maximum Seated Height 4.000 In.
Maximum Overall Height 4.375 In.



ELECTRICAL DATA

HEATER OPERATION

Heater Voltage.....6.3 Volts
Heater Current.....200 Ma
Maximum Heater-Cathode Voltage
Heater Negative with Respect to Cathode⁽¹⁾.....450 Volts
Heater Positive with Respect to Cathode.....Not Recommended

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid to Plate.....0.03 Pf
Input: g to (h + k).....2.0 Pf
Output: p to (h + k).....0.8 Pf

RATINGS (Design Maximum Rating System)

Plate-Supply Voltage (Unregulated).....60,000 Volts
Plate Voltage.....27,000 Volts
Negative DC Grid Voltage.....135 Volts
Peak Negative Grid Voltage⁽²⁾.....440 Volts
Plate Dissipation.....40 Watts
DC Plate Current.....1.6 Ma
Grid-Circuit Resistance⁽³⁾.....3.0 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Shunt Voltage Regulator Service

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 mhms
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) 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.
- (2) Peak value for duration of 20 seconds maximum during equipment warm-up.
- (3) 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.

6EH5

12EH5, 25EH5,
35EH5A, 50EH5A

AUDIO POWER AMPLIFIER

Beam Power Pentode

Construction Miniature T-5½
Base Button 7 Pin, E7-1
Basing 7CV
Outline 5-3
Maximum Diameter 0.750 In.
Maximum Seated Height 2.375 In.
Maximum Overall Height 2.625 In.

