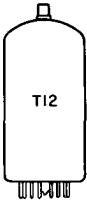
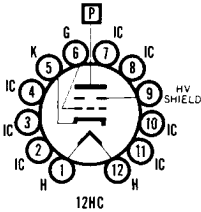


6EF4

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.

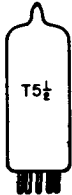
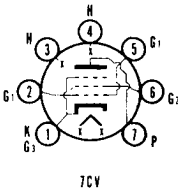
6EH5

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.



ELECTRICAL DATA HEATER OPERATION

	50EH5A	35EH5A	25EH5	12EH5	6EH5
Heater Voltage.....	50	35	25	12.6	6.3 Volts
Heater Current	150	150	300	600	1200 Ma
Heater Warm-up Time	17	17	—	11	— Seconds
Maximum Heater-Cathode Voltage					
Heater Negative with Respect to Cathode					
Total DC and Peak.....	200	200	200	300	200 Volts
Heater Positive with Respect to Cathode					
DC	100	100	100	100	100 Volts
Total DC and Peak.....	200	200	200	200	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate	0.65 Pf
Input: g1 to (k + g3 + g2 + h)	17 Pf
Output: p to (k + g3 + g2 + h)	9 Pf

RATINGS (Design Maximum Rating System)

Class A1 Amplifier

Plate Voltage (Max.)	150 Volts
Grid No. 2 Voltage (Max.)	130 Volts
Positive Grid No. 1 Voltage (Max.)	0 Volt
Plate Dissipation (Max.)	5.5 Watts
Grid No. 2 Input (Max.)	2.00 Watts
Grid No. 1 Circuit Resistance	
Fixed Bias (Max.)	0.1 Megohms
Cathode Bias (Max.)	0.5 Megohms
Bulb Temperature at Hottest Point (Max.)	220 °C

CHARACTERISTICS AND TYPICAL OPERATION

	Push-Pull AB1 Amp.	A1 Amp.
Plate Voltage	140	110 Volts
Grid No. 2 Voltage	120	115 Volts
Cathode Resistor	68	62 Ohms
Peak AF Grid No. 1 Voltage	4.7	3 Volts
Zero Signal Plate Current	47	42 Ma
Maximum Signal Plate Current	51	42 Ma
Zero Signal Grid No. 2 Current.....	11	11.5 Ma
Maximum Signal Grid No. 2 Current	17.7	14.5 Ma
Transconductance	—	14,600 μ mhos
Plate Resistance (Approx.)	—	11,000 Ohms
Load Resistance	6000 ⁽¹⁾	3000 Ohms
Maximum Signal Power Output	3.8	1.4 Watts
Total Harmonic Distortion	5	7 Percent

NOTE:

(1) Plate to Plate.

Color Television Type

VHF/IF AMPLIFIER

6EH7/EF183

3EH7/XF183, 4EH7

Semi-Remote Cutoff Pentode

Construction Miniature T-6½
Base Button 9 Pin, E9-1
Basing 9AQ
Outline

Maximum Diameter 0.875 In.
Maximum Seated Height 2.156 In.
Maximum Overall Height 2.406 In.

ELECTRICAL DATA HEATER OPERATION

	3EH7/XF183	4EH7	6EH7/EF183
Heater Voltage.....	3.4	4.4	6.3 Volts
Heater Current	600	450	300 Ma
Heater Warm-up Time	11	11	— Seconds
Maximum Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
Total DC and Peak.....			150 Volts
Heater Positive with Respect to Cathode			
Total DC and Peak.....			150 Volts

