

NOTES:

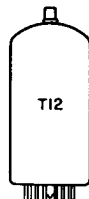
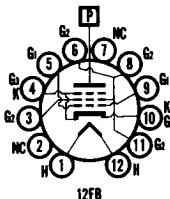
- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.
- (3) Amplification factor with tube operating as a triode with 130 volts on the plate and Grid No. 2 and -22 volts on Grid No. 1.

6HF5

Color Television Type

**HORIZONTAL DEFLECTION
AMPLIFIER****Beam Power Pentode**

Construction.....Compactron T-12
 Base Button 12 Pin, E12-74
 Top Cap C1-1
 Basing 12FB
 Outline 12-89
 Maximum Diameter 1.563 In.
 Maximum Seated Height 3.750 In.
 Maximum Overall Height 4.125 In.

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

Heater Voltage.....	6.3 Volts
Heater Current	2250 Ma
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)

Grid to Plate	0.56 Pf
Input: g1 to (h + k + g2 + g3)	24 Pf
Output: p to (h + k + g2 + g3)	10 Pf

RATINGS (Design Maximum Rating System)**Horizontal Deflection Amplifier⁽¹⁾**

DC Plate Supply Voltage (Boost + DC Power Supply) (Max.)	990 Volts
Peak Positive Plate Voltage (Max.)	7500 Volts
Peak Negative Plate Voltage (Max.)	1100 Volts
Grid No. 2 Voltage (Max.)	190 Volts
Peak Negative Grid No. 1 Voltage (Max.)	250 Volts
Plate Dissipation (Max.) ⁽²⁾	28 Watts
Grid No. 2 Input (Max.)	5.5 Watts
Average Cathode Current (Max.)	315 Ma
Peak Cathode Current (Max.)	1100 Ma
Grid No. 1 Circuit Resistance (Max.)	1.0 Megohm
Bulb Temperature (at Hottest Point) (Max.)	225 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	175 Volts
Grid No. 2 Voltage	125 Volts
Grid No. 1 Voltage	-25 Volts
Plate Current	125 Ma
Grid No. 2 Current	4.5 Ma
Transconductance	11,300 μ mhos
Amplification Factor ⁽³⁾	3
Plate Resistance	5600 Ohms
Ec1 for Ib = 1 Ma (Approx.)	-54 Volts

INSTANTANEOUS PLATE KNEE VALUES

Eb = 70 V; Ec2 = 125 V and Ec1 = 0 V;
 Ib = 570 Ma; and Ic2 = 34 Ma

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) Amplification factor with tube operating as a triode with 125 volts on the plate and Grid No. 2, and -25 volts on Grid No. 1.

Color Television Type

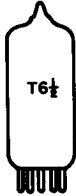
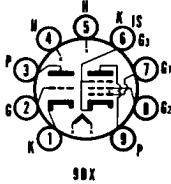
**SYNC SEP. or VOLTAGE AMP. (T)
VIDEO AMPLIFIER (P)**

6HF8

10HF8

**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

	10HF8	6HF8
Heater Voltage.....	10.5	6.3 Volts
Heater Current	450	750 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

Grid to Plate	3.5 Pf
Input: g to (Tk, Pk + G3 + IS, h)	2.8 Pf
Output: p to (Tk, Pk + G3 + IS, h)	2.6 Pf

Pentode

Grid No. 1 to Plate (Max.)	0.1 Pf
Input: g1 to (k + IS + g3, g2, h).....	10 Pf
Output: p to (k + IS + g3, g2, h).....	4.2 Pf

Coupling

Triode Grid to Pentode Plate (Max.)	0.015 Pf
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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.)	
Plate Dissipation (Max.)	1.0	5 Watts
Grid No. 2 Dissipation (Max.)	—	1.1 Watts
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	0.5	0.25 Megohm
Self Bias (Max.)	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

	Triode Section	Pentode Section
Plate Voltage	200	200 Volts
Grid No. 2 Voltage	—	125 Volts
Grid No. 1 Voltage	—2	— Volts
Cathode Bias Resistor	—	68 Ohms
Plate Current	4	25 Ma
Grid No. 2 Current	—	7 Ma
Transconductance	4000	12,500 μ mhos
Amplification Factor	70	—
Plate Resistance (Approx.)	17,500	75,000 Ohms
Ec for Ib = 20 μ a (Approx.)	—6	— Volts
Ec1 for Ib = 100 μ a (Approx.)	—	—9 Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS

Eb = 45 V; Ec2 = 125 V; and Ec1 = 0 V
Ib = 40 Ma (Approx.) and Ic2 = 15 Ma (Approx.)