

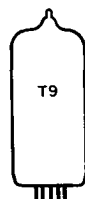
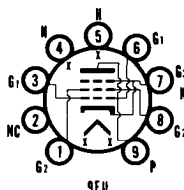
6GC5

Color Television Type

AUDIO POWER AMPLIFIER

Beam Power Pentode

Construction 9T-9
 Base Button 9 Pin, E9-68
 Basing 9EU
 Outline 9-71
 Maximum Diameter 1.188 In.
 Maximum Seated Height 2.920 In.
 Maximum Overall Height 3.230 In.

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

Heater Voltage	6.3 Volts
Heater Current	1200 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 No. 1 to Plate	0.9 Pf
Input: g1 to (h + k, g3 + g2)	18 Pf
Output: p to (h + k, g3 + g2)	7 Pf

RATINGS (Design Maximum Rating System)

Plate Voltage (Max.)	220 Volts
Grid No. 2 Voltage (Max.)	140 Volts
Plate Dissipation (Max.)	12 Watts
Grid No. 2 Dissipation (Max.)	1.4 Watts
Grid No. 1 Circuit Resistance	
Fixed Bias (Max.)	0.1 Megohm
Cathode Bias (Max.)	0.5 Megohm

CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier (Single Tube)**

Plate Voltage	110	200 Volts
Grid No. 2 Voltage	110	125 Volts
Grid No. 1 Voltage	-7.5	— Volts
Cathode Resistor	—	180 Ohms
Peak AF Grid No. 1 Voltage	7.5	8.5 Volts
Zero Signal Plate Current	49	46 Ma
Maximum Signal Plate Current	50	47 Ma
Zero Signal Grid No. 2 Current	4	2.2 Ma
Maximum Signal Grid No. 2 Current	10	8.5 Ma
Transconductance	8000	8000 μ mhos
Plate Resistance (Approx.)	13,000	28,000 Ohms
Load Resistance	2000	4000 Ohms
Maximum Signal Power Output	2.1	3.8 Watts
Total Harmonic Distortion (Approx.)	10	10 Percent

6GE5

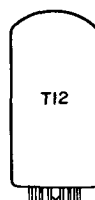
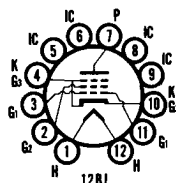
12GE5, 17GE5

Color Television Type

HORIZONTAL DEFLECTION AMPLIFIER

Beam Power Pentode

Construction Compactron T-12
 Base Button 12 Pin, E12-74
 Basing 12BJ
 Outline 12-56
 Maximum Diameter 1.563 In.
 Maximum Seated Height 2.500 In.
 Maximum Overall Height 2.875 In.



**ELECTRICAL DATA
HEATER OPERATION**

	17GE5	12GE5	6GE5
Heater Voltage.....	16.8	12.6	6.3 Volts
Heater Current	450	600	1200 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)

Grid No. 1 to Plate	0.34 Pf
Input	16 Pf
Output	7 Pf

RATINGS (Design Maximum Rating System)

Horizontal Deflection Amplifier⁽¹⁾

DC Plate Supply Voltage (Boost + DC Power Supply) (Max.)	770 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.)	6500 Volts
Peak Negative Pulse Plate Voltage (Max.)	1500 Volts
Plate Dissipation (Max.) ⁽²⁾	17.5 Watts
Peak Negative Grid No. 1 Voltage (Max.)	330 Volts
Grid No. 2 Voltage (Max.)	220 Volts
Grid No. 2 Dissipation (Max.)	3.5 Watts
Average Cathode Current (Max.)	175 Ma
Peak Cathode Current (Max.)	550 Ma
Grid No. 1 Circuit Resistance (Max.)	1.0 Megohm
Bulb Temperature (At Hottest Point) (Max.)	220 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	5000	250 Volts
Grid No. 2 Voltage	150	150 Volts
Grid No. 1 Voltage	—	-22.5 Volts
Plate Current	—	65 Ma
Grid No. 2 Current	—	1.8 Ma
Transconductance	—	7300 μ mhos
Plate Resistance.....	—	18,000 Ohms
Amplification Factor ⁽³⁾	—	4.4
E _{c1} for I _b = 1.0 Ma (Approx.)	-100	-42 Volts

INSTANTANEOUS PLATE KNEE VALUES

E_b = 60 V; E_{c2} = 150 V and E_{c1} = 0
I_b = 345 Ma, and I_{c2} = 27 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 is not to 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 150 volts on the plate and Grid No. 2 and -22.5 volts on Grid No. 1.

**HORIZONTAL DEFLECTION
AMPLIFIER**

6GF5

Beam Power Pentode

Construction..... Compactron T-9
Base

Button 12 Pin, E12-70

Basing

12BJ

Outline

9-60

Maximum Diameter

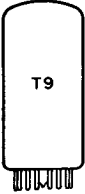
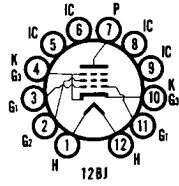
1.188 In.

Maximum Seated Height

2.500 In.

Maximum Overall Height

2.875 In.



**ELECTRICAL DATA
HEATER OPERATION**

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Maximum Heater-Cathode Voltage	
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Total DC and Peak.....	200 Volts