

CHARACTERISTICS AND TYPICAL OPERATION**Pentode Section**

Plate Voltage	5000	60	130 Volts
Screen Voltage	130	130	130 Volts
Grid No. 1 Voltage	—	0	-22.5 Volts
Plate Resistance (Approx.)	—	—	10,000 Ohms
Transconductance	—	—	6500 μ mhos
Plate Current	—	320	48 Ma
Screen Current	—	22	2.9 Ma
Grid No. 1 Voltage (Approx.)	—	—	—
Ib = 1.0 Ma	-80	—	-40 Volts
Triode Amplification Factor ⁽³⁾	—	—	4.0

Diode Section

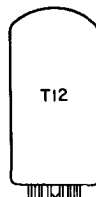
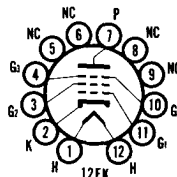
Tube Voltage Drop			
Ib = 250 Ma DC	—	—	21 Volts

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 -22.5 volts on Grid No. 1.

33J1V6**HORIZONTAL DEFLECTION AMPLIFIER****Beam Power Pentode**

Construction	Compactron T-12
Base	Button 12 Pin, E12-74
Basing	12FK
Outline	12-58
Maximum Diameter	1.562 In.
Maximum Seated Height	3.000 In.
Maximum Overall Height	3.375 In.

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

Heater Voltage	33 Volts
Heater Current	300 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)

Grid No. 1 to Plate	0.4 Pf
Input	22 Pf
Output	9.0 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 (Max.)	6000 Volts
Peak Negative Pulse Plate Voltage (Max.)	1500 Volts
Positive DC Beam Plate Voltage (Max.)	70 Volts
Plate Dissipation (Max.)	18 Watts
Negative DC Grid No. 1 Voltage	55 Volts
Peak Negative Grid No. 1 Voltage (Max.)	330 Volts
Grid No. 2 Voltage (Max.)	220 Volts
Grid No. 2 Dissipation (Max.) ⁽²⁾	3.5 Watts
Average Cathode Current (Max.)	230 Ma
Peak Cathode Current (Max.)	800 Ma
Grid No. 1 Circuit Resistance (Max.)	1.0 Megohm
Bulb Temperature (at Hottest Point) (Max.)	220 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	130 Volts
Grid No. 2 Voltage	130 Volts
Grid No. 1 Voltage	-20 Volts

Plate Current	50 Ma
Grid No. 2 Current	1.75 Ma
Transconductance	9100 μ mhos
Plate Resistance	11,000 Ohms
Amplification Factor ⁽³⁾	4.7
E _{c1} for I _b = 1.0 Ma (Approx.)	-33 Volts

INSTANTANEOUS PLATE KNEE VALUES

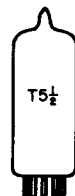
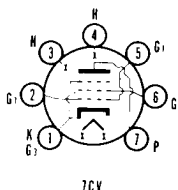
E_b = 60 V; E_{c2} = 130 V and E_{c1} = 0 V
 I_b = 410 Ma, and I_{c2} = 24 Ma

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 operation as a triode with 130 volts on the plate and Grid No. 2 and -20 volts on Grid No. 1.

AUDIO OUTPUT AMPLIFIER**34GD5A****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**

Heater Voltage	34 Volts
Heater Current	100 Ma
Heater Warm-up Time	20 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	0.6 Pf
Input: g ₁ to (h + k + g ₂ + g ₃)	12 Pf
Output: p to (h + k + g ₂ + g ₃)	9.0 Pf

RATINGS (Design Maximum Rating System)

Plate Voltage (Max.)	150 Volts
Grid No. 2 Voltage (Max.)	130 Volts
Plate Dissipation (Max.)	5.0 Watts
Grid No. 2 Dissipation (Max.)	1.1 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**

Plate Voltage	110 Volts
Grid No. 2 Voltage	110 Volts
Grid No. 1 Voltage	-7.5 Volts
Peak AF Grid No. 1 Voltage	7.5 Volts
Zero-Signal Plate Current	35 Ma
Zero-Signal Grid No. 2 Current	3.0 Ma
Transconductance	5700 μ mhos
Plate Resistance (Approx.)	13,000 Ohms
Load Resistance	2500 Ohms
Maximum Signal Power Output	1.4 Watts
Total Harmonic Distortion (Approx.)	10 Percent