

ELECTRICAL DATA

FILAMENT OPERATION

Filament Voltage.....	3.15 Volts
Filament Current	280 Ma

DIRECT INTERELECTRODE CAPACITANCES

Plate to Filament and Internal Shield.....	Without Shield 1.5 pf
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RATINGS (Design Maximum Rating System)

Pulse Rectifier Service⁽⁴⁾

Peak Inverse Plate Voltage	
Total DC and Peak (Absolute Max.).....	38,000 Volts
DC Component (Absolute Max.)	30,000 Volts
Steady State Peak Plate Current (Design Max.).....	100 Ma
Average Plate Current (DC Output) (Design Max.)	2.0 Ma

AVERAGE CHARACTERISTICS

Instantaneous Tube Drop (Approx.) for Ib = 7.0 Ma	50 Volts
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X-RADIATION CHARACTERISTIC

Maximum X-Radiation 25.0 mR/h
X-Radiation is measured in accordance with JEDEC Publication No. 67, "Recommended Practice for Measurement of X-Radiation from Receiving Tubes," dated February 1968 and quality controlled in accordance with JEDEC Publication No. 73, "Recommended Practice for Quality Control of X-Radiation Emitted from High Voltage Rectifier and Shunt Regulator Receiving Tubes."

Lot acceptance sampling procedures for the manufacturer's initial and life tests for X-Radiation are based on MIL-STD-105, "Military Standard Sampling Procedures and Tables for Inspection by Attributes." Lot acceptance and life control limits are established substantially below the X-Radiation Characteristic Maximum.

NOTES:

- (1) Pins designated Internal Connection (IC) may or may not have connections to internal elements depending on manufacturer. To maintain interchangeability do not use these pins for external socket connections.
- (2) Pin connections 4 and 6 may be used as tie points.
- (3) Use Pin 7 as high voltage output connection.
- (4) 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.
- (5) Good high voltage practice dictates that a minimum of 1/4 inch be maintained between the tube envelope and the filament and/or DC output leads.

X-RADIATION WARNING: The high voltages associated with this tube type result in the production of X-radiation which may constitute a health hazard on prolonged exposure at close range unless the tube is adequately shielded. Precautions must be exercised during the servicing of equipment to assure that all shielding components are replaced to their intended positions before the equipment is operated.

Color Television Type

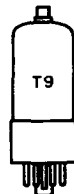
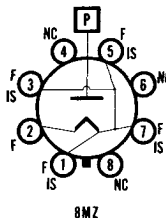
HIGH VOLTAGE RECTIFIER

3DC3

Filamentary Diode

Construction Octal T-9
Base B8-6, B8-58, B8-142, B8-251
Basing^{(2), (3)} 8MZ
Outline

Maximum Diameter 1.281 In.
Maximum Seated Height 3.250 In.
Maximum Overall Height 3.812 In.



ELECTRICAL DATA

FILAMENT OPERATION

Filament Voltage.....	3.15 Volts
Filament Current	280 Ma

DIRECT INTERELECTRODE CAPACITANCES

Plate to Filament and Internal Shield.....	Without Shield 1.5 pf
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RATINGS (Design Maximum Rating System)**Pulse Rectifier Service⁽⁴⁾****Peak Inverse Plate Voltage**

Total DC and Peak (Absolute Max.)	38,000 Volts
DC Component (Absolute Max.)	30,000 Volts
Steady State Peak Plate Current (Design Max.)	110 Ma
Average Plate Current (DC Output) (Design Max.)	2.2 Ma

AVERAGE CHARACTERISTICS

Instantaneous Tube Drop (Approx.) for $I_b = 7.0$ Ma. 50 Volts

X-RADIATION CHARACTERISTIC

Maximum X-Radiation 25.0 mR/h

X-Radiation is measured in accordance with JEDEC Publication No. 67, "Recommended Practice for Measurement of X-Radiation from Receiving Tubes," dated February 1968 and quality controlled in accordance with JEDEC Publication No. 73, "Recommended Practice for Quality Control of X-Radiation Emitted from High Voltage Rectifier and Shunt Regulator Receiving Tubes."

Lot acceptance sampling procedures for the manufacturer's initial and life tests for X-Radiation are based upon MIL-STD-105, "Military Standard Sampling Procedures and Tables for Inspection by Attributes." Lot acceptance and life control limits are established substantially below the X-Radiation Characteristic Maximum.

NOTES:

- (1) Good high voltage practice dictates that a minimum of $\frac{1}{2}$ inch be maintained between the tube envelope and the filament and/or DC output leads.
- (2) Socket connections 4, 6 and 8 may be used as tie points.
- (3) Use Pin 7 as high voltage output connection.
- (4) For operation as a pulsed rectifier 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.

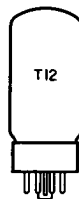
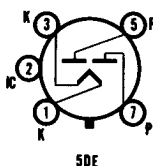
X-RADIATION WARNING: The high voltages associated with this tube type result in the production of X-radiation which may constitute a health hazard on prolonged exposure at close range unless the tube is adequately shielded. Precautions must be exercised during the servicing of equipment to assure that all shielding components are replaced to their intended positions before the equipment is operated.

3DG4

Color Television Type

FULL-WAVE POWER RECTIFIER**Filamentary Twin Diode**

Construction	Octal T-12
Base	Octal 5 Pin
Basing	.5DE
Outline	12-16
Maximum Diameter	1.563 In.
Maximum Seated Height	4.063 In.
Maximum Overall Height	4.625 In.

**ELECTRICAL DATA****FILAMENT OPERATION**

Filament Voltage	3.3 Volts
Filament Current	3800 Ma

RATINGS (Design Maximum Rating System)**Rectifier Service⁽¹⁾**

Peak Inverse Plate Voltage (Max.)	1050 Volts
AC Plate Supply Voltage (Each Plate, RMS) (Max.)	375 Volts
DC Output Current (Max.)	400 Ma
Steady State Peak Plate Current (Each Plate) (Max.)	1200 Ma
Transient Peak Plate Current (Each Plate) (Max.)	6500 Ma
Bulb Temperature at Hottest Point (Max.)	200 °C

CHARACTERISTICS AND TYPICAL OPERATION**Full Wave Rectifier—Capacitor Input Filter**

AC Plate Supply Voltage (Each Plate, RMS) ⁽²⁾	275 Volts
Filter Input Capacitor	40 μ f
Effective Plate-Supply Resistance (Each Plate)	32 Ohms
DC Output Current	350 Ma
DC Output Voltage at Filter Input	300 Volts
Tube Voltage Drop for $I_b = 350$ Ma (Each Plate)	25 Volts

NOTES:

- (1) For use with sinusoidal supply voltages within the frequency range of 25 to 1000 Hertz.
- (2) AC plate voltage is measured without load.