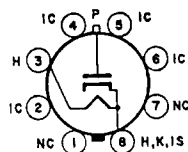


**3DF3****HALF-WAVE  
VACUUM RECTIFIER****3DF3A**

Glass octal types used as a high-voltage rectifier to supply power to the anode of the picture tube in television receivers. Outlines section, 14G and 14H, respectively; requires octal socket. Socket terminals 1 and 7 may be used as tie points for components at or near heater potential. For high-voltage and X-ray safety considerations, refer to page 93. Heater: volts (ac/dc), 3.15; ampere, 0.48.

**8MT****Flyback Rectifier**

For operation in a 525-line, 30-frame system

**MAXIMUM RATINGS (Design-Maximum Values)**

Peak Inverse Plate Voltage#	38000●	volts
Peak Plate Current	110	mA
Average Plate Current	2.2	mA
Heater Voltage:		
Absolute maximum value	3.65	volts
Absolute-minimum value	2.65	volts

**CHARACTERISTIC, Instantaneous Value**

Tube Voltage Drop for plate current of 7 mA	60	volts
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**X-RADIATION CHARACTERISTIC****X-Radiation, Maximum:**

	<b>3DF3</b>	<b>3DF3A</b>	
Statistical value controlled on a lot sampling basis ..	25	8	mR/hr

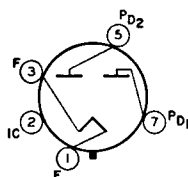
# Pulse duration must not exceed 15% of a horizontal scanning cycle.

● The dc component must not exceed 30000 volts.

**Caution**—Operation of this tube outside of the maximum values indicated above may result in either temporary or permanent changes in the X-radiation characteristic of the tube. Equipment design must be such that these maximum values are not exceeded.

**3DG4****3DH3****FULL-WAVE  
VACUUM RECTIFIER**

Glass octal type used in power supplies of color and black-and-white television receivers and other equipment having high dc requirements. Outlines section, 19E; requires octal socket. It is especially important that this tube, like other power-handling tubes, be adequately ventilated. For discussion of Rating Chart, refer to Interpretation of Tube Data. Filament: volts (ac/dc), 3.3; amperes, 3.8.

**5DE****Full-Wave Rectifier****MAXIMUM RATINGS (Design-Maximum Values)**

Peak Inverse Plate Voltage	1050	volts
Peak Plate Current (Per Plate)	1.2	amperes
Hot-Switching Transient Plate Current (Per Plate)	6.5	amperes
AC Plate Supply Voltage (Per Plate, rms)	See Rating Chart	
DC Output Current (Per Plate)	See Rating Chart	
Bulb Temperature (At hottest point on bulb surface)	200	°C

**TYPICAL OPERATION WITH CAPACITOR INPUT TO FILTER**

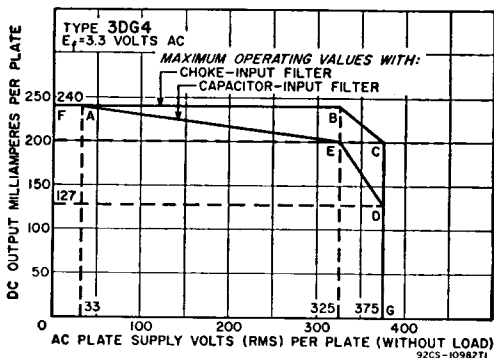
AC Plate-to-Plate Supply Voltage (rms)	550	volts
Filter-Input Capacitor*	40	μF
Effective Plate-Supply Impedance per Plate	32	ohms
DC Output Voltage at Input to Filter (Approx.):		
At full-load current of 350 mA	300	volts

**CHARACTERISTICS**

Tube Voltage Drop for plate current of 350 mA (per plate)	25	volts
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\* Higher values of capacitance than indicated may be used, but the effective plate-supply impedance may have to be increased to prevent exceeding the maximum peak-plate-current rating.

RATING CHART

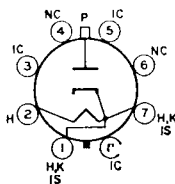


For replacement use type 3DA3/3DH3.

3DH3

**HALF-WAVE  
VACUUM RECTIFIER**

**3DJ3**



8MX

Glass octal type used as a high-voltage rectifier to supply power to the anode of the picture tube in color television receivers. Outlines section, 14H; requires octal socket. Socket terminals 4 and 6 may be used as tie points for components at or near heater potential. For high-voltage and X-ray safety considerations, refer to page 93. Heater: volts (ac/dc), 3.15; ampere, 0.3.

**Flyback Rectifier**

For operation in a 525-line, 30-frame system

**MAXIMUM RATINGS (Design-Maximum Values)**

Peak Inverse Plate Voltage#	38000●	volts
Peak Plate Voltage	100	mA
Average Plate Current	2	mA
Heater Voltage:		
Absolute maximum value	3.65	volts
Absolute-minimum value	2.65	volts

**CHARACTERISTIC, Instantaneous Value**

Tube Voltage Drop for plate current of 7 mA	70	volts
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**X-RADIATION CHARACTERISTIC**

X-Radiation, maximum:		
Statistical value controlled on a lot sampling basis	25	mR/hr

# Pulse duration must not exceed 15% of a horizontal scanning cycle.

● The dc component must not exceed 30000 volts.

Caution—Operation of this tube outside of the maximum values indicated above may result in either temporary or permanent changes in the X-radiation characteristic of the tube. Equipment design must be such that these maximum values are not exceeded.

Refer to type 6DK6.

**3DK6**

Refer to chart at end of section.

**3DR3**

Refer to chart at end of section.

**3DS3**

For replacement use type 3DT6A.

**3DT6**

Refer to type 6DT6A.

**3DT6A**

Refer to chart at end of section.

For replacement use type 3AF4A/3DZ4.

**3DZ4**

Refer to chart at end of section.

**3EA5**

For replacement use type 3EH7/XF183.

**3EH7**

<b>3EH7/XF183</b>	Refer to type 6EH7/EF183.
<b>3EJ7</b>	Refer to chart at end of section.
<b>3EJ7/XF184</b>	Refer to type 6EJ7/EF184.
<b>3ER5</b>	Refer to type 6ER5.
<b>3FH5</b>	Refer to chart at end of section.
<b>3FS5</b>	Refer to type 6FS5.
<b>3GK5</b>	Refer to type 6GK5.
<b>3GS8</b>	Refer to chart at end of section. For replacement use type 3BU8/3GS8.
<b>3GS8/3BU8</b>	Refer to chart at end of section.
<b>3HA5</b>	Refer to chart at end of section. For replacement use type 3HM5/3HA5.
<b>3HM5/3HA5</b>	Refer to type 6HM5/6HA5.
<b>3HQ5</b>	Refer to type 6HQ5.
<b>3HS8</b>	Refer to chart at end of section.
<b>3JC6</b>	Refer to chart at end of section.
<b>3JC6A</b>	Refer to type 6JC6A.
<b>3JD6</b>	Refer to type 6JD6.
<b>3KT6</b>	Refer to type 6KT6.
<b>3LF4</b>	Refer to chart at end of section.
<b>3Q4</b>	Refer to chart at end of section.
<b>3Q5GT</b>	Refer to chart at end of section.
<b>3S4</b>	Refer to chart at end of section.
<b>3V4</b>	Refer to chart at end of section.
<b>4AU6</b>	Refer to type 6AU6A.
<b>4AV6</b>	Refer to type 6AV6.
<b>4BC5</b>	Refer to chart at end of section.
<b>4BC8</b>	Refer to type 6BC8.
<b>4BL8</b>	Refer to chart at end of section.
<b>4BL8/XCF80</b>	Refer to type 6BL8/ECF80.
<b>4BN6</b>	Refer to type 6BN6.
<b>4BQ7A</b>	For replacement use type 4BQ7A/4BZ7.

Refer to type 6BQ7A/6BZ7/6BS8.	<b>4BQ7A/4BZ7</b>
Refer to chart at end of section.	<b>4BS8</b>
Refer to chart at end of section.	<b>4BU8</b>
Refer to type 6BU8.	<b>4BU8/4GS8</b>
Refer to type 6BZ6.	<b>4BZ6</b>
Refer to chart at end of section.	<b>4BZ7</b>
For replacement use type 4BQ7A/4BZ7.	<b>4CB6</b>
Refer to type 6CB6A.	<b>4CS6</b>
Refer to type 6CS6.	<b>4CY5</b>
Refer to chart at end of section.	<b>4DE6</b>
Refer to type 6DE6.	<b>4DK6</b>
Refer to type 6DK6.	<b>4DT6</b>
Refer to chart at end of section.	<b>4DT6A</b>
Refer to type 6DT6A.	<b>4EH7</b>
Refer to chart at end of section.	<b>4EH7/LF183</b>
Refer to type 6EH7/EF183.	<b>4EJ7</b>
Refer to chart at end of section.	<b>4EJ7/LF184</b>
Refer to type 6EJ7/EF184.	<b>4ES8</b>
Refer to chart at end of section.	<b>4ES8/XCC189</b>
Refer to chart at end of section.	<b>4EW6</b>
For replacement use type 4KN8.	<b>4GK5</b>
Refer to chart at end of section.	<b>4GJ7/XCF801</b>
Refer to type 6GJ7/ECF801.	<b>4GM6</b>
Refer to chart at end of section.	<b>4GS8</b>
Refer to chart at end of section.	<b>4GS8/4BU8</b>
Refer to chart at end of section.	<b>4GX7</b>
Refer to chart at end of section.	<b>4GZ5</b>
Refer to chart at end of section.	<b>4HA5</b>
For replacement use type 4HM5/4HA5.	<b>4HA5/PC900</b>
Refer to chart at end of section.	<b>4HA7</b>
For replacement use type 4HM5/4HA5.	
Refer to chart at end of section.	