FULL-WAVE GAS RECTIFIER \textbf{OZ4A/OZ4}

Metal type used as a power rectifier in equipment with vibrator-type power supplies. Outlines section, 2A; requires octal socket. This tube, like other power-handling tubes, should be adequately ventilated.

### Full-Wave Rectifier

**MAXIMUM AND MINIMUM RATINGS** (Design-Center Values)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Inverse Plate Voltage (Per Plate)</td>
<td>880 \text{ max}</td>
<td>volts</td>
</tr>
<tr>
<td>Peak Starting-Supply Voltage (Per Plate)</td>
<td>300* \text{ min}</td>
<td>volts</td>
</tr>
<tr>
<td>Peak Plate Current (Per Plate)</td>
<td>330 \text{ max}</td>
<td>mA</td>
</tr>
<tr>
<td>DC Output Current</td>
<td>110 \text{ max}</td>
<td>mA</td>
</tr>
<tr>
<td></td>
<td>30* \text{ min}</td>
<td>mA</td>
</tr>
</tbody>
</table>

### TYPICAL OPERATION WITH VIBRATOR-TYPE POWER SUPPLY AND CAPACITOR INPUT TO FILTER

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Plate Supply Voltage (Per Plate)†</td>
<td>440 \text{ volts}</td>
</tr>
<tr>
<td>Filter-Input Capacitor</td>
<td>8 \text{ (\mu F)}</td>
</tr>
<tr>
<td>Total Effective Plate Supply Impedance (Per Plate)</td>
<td>600 \text{ ohms}</td>
</tr>
<tr>
<td>DC Output at Input to Filter</td>
<td>310 \text{ volts}</td>
</tr>
<tr>
<td>DC Output Current</td>
<td>100 \text{ mA}</td>
</tr>
</tbody>
</table>

### CHARACTERISTICS

* Tube Voltage Drop for current of 110 mA (Per Plate) | 24 \text{ volts} 

### MINIMUM CIRCUIT VALUE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Effective Plate-Supply Impedance (Per Plate)</td>
<td>300 \text{ ohms}</td>
</tr>
</tbody>
</table>

* Absolute value. Under no circumstances should the tube be operated below the value shown.

† Open-circuit voltage (flat portion of transformer voltage wave).

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

OZ4G

1A3

1A4P

1A5GT

1A6

1A7GT

1AC5

1AD2

1AD2A

Duodecar type used as a rectifier in high-voltage pulse circuits of color and black-and-white television receivers. Outlines section, 9A; requires duodecar 12-contact socket. Socket terminals 4 and 10 may be used as tie points for components at or near filament potential. For high-voltage and X-ray safety considerations, refer to page 93.
Filament Voltage (ac/dc) ........................................ 1.25 volts
Filament Current .............................................. 0.2 ampere
Direct Inter-electrode Capacitance (Approx.):
Plate to Filament ............................................. 1.6 pF

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

MAXIMUM RATINGS (Design-Maximum Values)
Peak Inverse Plate Voltage# .................................. 26000* volts
Peak Plate Current ........................................... 50 mA
Average Plate Current ....................................... 0.5 mA
Filament Voltage:
  Absolute-maximum value .................................. 1.45 volts
  Absolute-minimum value .................................. 1.05 volts
CHARACTERISTIC, Instantaneous Value
Tube Voltage Drop for plate current of 7 mA .................. 225 volts

X-RADIATION CHARACTERISTIC
X-Radiation, Maximum:
  Statistical value controlled on a lot sampling basis ....... 0.5 mR/hr
# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).
• The dc component must not exceed 22000 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.

1AD5  Refer to chart at end of section.
1AX2  Refer to chart at end of section.
1AY2  Refer to chart at end of section.

1AY2A  HALF-WAVE VACUUM RECTIFIER
Miniature type used to supply high voltage to the anode of the picture tube in television receivers. Outlines section, 38A; requires 2-contact socket. For high-voltage and X-ray safety considerations, refer to page 93.

Filament Voltage (ac/dc) ........................................ 1.25 volts
Filament Current .............................................. 0.2 ampere
Direct Inter-electrode Capacitance:
  Plate to Filament ........................................ 1.4 pF

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

MAXIMUM RATINGS (Design-Maximum Values)
Peak Inverse Plate Voltage# .................................. 26000* volts
Peak Plate Current ........................................... 50 mA
Average Plate Current ....................................... 0.5 mA
Filament Voltage:
  Absolute-maximum value .................................. 1.45 volts
  Absolute-minimum value .................................. 1.05 volts
CHARACTERISTIC, Instantaneous Value
Tube Voltage Drop for plate current of 7 mA .................. 100 volts

X-RADIATION CHARACTERISTIC
X-Radiation Maximum:
  Statistical value controlled on a lot sampling basis ....... 0.5 mR/hr
# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).
• The dc component must not exceed 22000 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.

1B3GT  Refer to chart at end of section.
For replacement use type 1G3GTA/1B3GT.