DESCRIPTION

The GL-8020 is a high-vacuum rectifier that may be used at voltages as high as 40,000 volts peak inverse. This tube is particularly useful in applications which require high voltage and low current.

TECHNICAL INFORMATION

These data are for reference only. For design information refer to specifications.

GENERAL CHARACTERISTICS

Electrical

Filament—Thoriated tungsten
Voltage ........................................ 5 volts
Current ........................................ 5.5–6.5 amperes
Tube voltage drop (at 100 milliamperes) ................ 200 volts
Capacitance, plate-filament ....................... 1.4 micromicrofarads

Mechanical

Type of cooling ................................ convection
Over-all dimensions
  Maximum length ................................ 8 inches
  Maximum diameter .............................. 2 7/8 inches
Anode cap ........................................ medium metal
Base ................................................ medium, 4-pin bayonet
Net weight, approx. .............................. 3 ounces
Shipping weight, approx. ......................... 3 pounds
Mounting position ............................... vertical, base down

GENERAL ELECTRIC
### TECHNICAL INFORMATION (CONT'D)

### MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

<table>
<thead>
<tr>
<th>Operation</th>
<th>Typical Operation</th>
<th>Maximum Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak inverse voltage</td>
<td>40,000 volts</td>
<td></td>
</tr>
<tr>
<td>Peak anode current</td>
<td>750 milliampères</td>
<td></td>
</tr>
<tr>
<td>Average anode current</td>
<td>100 milliampères</td>
<td></td>
</tr>
</tbody>
</table>

**Surge limiting diode operation**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filament voltage</td>
<td>5.5</td>
</tr>
<tr>
<td>Peak forward anode voltage</td>
<td>10,000</td>
</tr>
<tr>
<td>Peak anode current, minimum</td>
<td>2</td>
</tr>
<tr>
<td>Average anode dissipation</td>
<td>75 watts</td>
</tr>
</tbody>
</table>

**GL-8020**

**PLATE CHARACTERISTIC**

$E_i = 5$ VOLTS

![Graph showing plate characteristic with $E_i = 5$ volts]