Description and Rating

MAGNETRON GL-6527

9345 - 9405 MEGACYCLES
9 KILOWATTS PEAK OUTPUT
PULSED

INTEGRAL MAGNET
FORCED-AIR-COOLED
HIGH-ALTITUDE OPERATION

The GL-6527 is a forced-air-cooled fixed-frequency pulsed-type oscillator tube. A particular feature of this tube is its ability to operate reliably at altitudes as high as 60,000 feet.

TECHNICAL INFORMATION

GENERAL

Electrical

Cathode - Coated Unipotential

Heater Voltage - Pre-Heat 6.3 ± 10% Volts
Heater Current at 6.3 Volts - Pre-Heat 500 Milliamperes
Heating Time - Pre-Heat, minimum 2 Minutes

Mechanical

Mounting Position - Any
Mounting Support - UG-40/U Choke Flange

Output Coupling - UG-40/U Flange
Load Transmission Line - RG-52/U Waveguide
Anode Temperature, Maximum 200 C
Cathode Stem Temperature, Maximum 200 C

Net Weight, approximate 3 Pounds

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum Ratings, Absolute Values

Duty Cycle 0.0025
Heater Voltage 7.0 Max Volts
Heater Current 0.60 Max Amperes
Peak Anode Voltage 6000 Max Volts
Peak Anode Current 5.5 Max Amperes
Average Power Input 82.5 Max Watts
Pulse Duration 2.5 Max Microseconds
Rate of Rise of Anode Voltage 60 Max Kilovolts per Microsecond

GENERAL ELECTRIC COMPANY
### Maximum Ratings, Absolute Values (Cont'd)

**Output Circuit Pressurization**

<table>
<thead>
<tr>
<th></th>
<th>45 Max</th>
<th>Pounds per Square Inch Absolute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Altitude without Pressurization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Circuit</td>
<td>60,000</td>
<td>Feet</td>
</tr>
<tr>
<td>Input Terminals</td>
<td>60,000</td>
<td>Feet</td>
</tr>
</tbody>
</table>

**Load Voltage Standing Wave Ratio**

1.5

### Typical Operation

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Anode Voltage</td>
<td>5.5 ± 0.2</td>
</tr>
<tr>
<td>Pulling Factor, VSWR 1.5/1</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>9375 ± 30</td>
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<tr>
<td>Duty Cycle</td>
<td>0.002</td>
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<tr>
<td></td>
<td>0.0008</td>
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<tr>
<td></td>
<td>0.00064</td>
</tr>
<tr>
<td>Heater Voltage</td>
<td>4.5</td>
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<tr>
<td>heater Current</td>
<td>0.5</td>
</tr>
<tr>
<td>Peak Anode Voltage</td>
<td>5500</td>
</tr>
<tr>
<td>Current Pulse Width</td>
<td>1.0 ± 10%</td>
</tr>
<tr>
<td>Voltage Pulse</td>
<td>2.2 ± 10%</td>
</tr>
<tr>
<td>Rate of Rise</td>
<td>55 ± 5</td>
</tr>
<tr>
<td>Peak Power Output</td>
<td>9000</td>
</tr>
</tbody>
</table>

**Units**

- Kilovolts
- Megacycles
- Volts
- Amperes
- Volts
- Microseconds
- Kilovolts per Microsecond
- Watts