Waveguide Gunn Oscillator, Center Frequency 24.125 GHz, Tuning Range 1,000 MHz, Phase Noise -98 dBC/Hz, K Band, WR-42 With UG-595/U

Waveguide Gunn Oscillators Technical Data Sheet

PEWGN1001

Features

- Center Frequency 24.125 GHz
- Tuning Range 1.0 GHz
- Phase Noise -95 dBc/Hz
- K Band
- WR-42 UG-595/U Flange

Applications

- Police speed radar guns
- Doppler sensors
- Transceivers

Description

The PEWGN1001 is a Waveguide Gunn Oscillator with a Center Frequency of 24.125 GHz and a Tuning Range of +/- 1.0 GHz. The unit operates in the K Band. The unit has a Phase Noise @ 100kHz Offset of -95 dBc/Hz typ and Frequency Stability of -0.4 MHz/°C max. The Gunn Oscillator has an Output Power of 10 dBm min and Power Stability of -0.04 dB/°C max. The Waveguide Gunn Oscillator uses a Bias Voltage of 5.0 Volts and a Bias Current of 200 mA and has a Waveguide Size of WR-42 and a Flange of UG-595/U.

Electrical Specifications (TA = +25°C, Bias Voltage= 5V, Bias Current= 200mA)

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Frequency</td>
<td>24.125</td>
<td></td>
<td></td>
<td>GHz</td>
</tr>
<tr>
<td>Tuning Range</td>
<td>±1000</td>
<td></td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Output Power</td>
<td>10</td>
<td></td>
<td></td>
<td>dBm</td>
</tr>
<tr>
<td>Frequency Stability</td>
<td>-0.2</td>
<td></td>
<td></td>
<td>MHz/deg C</td>
</tr>
<tr>
<td>Power Stability</td>
<td>-0.03</td>
<td></td>
<td></td>
<td>dB/deg C</td>
</tr>
<tr>
<td>Phase Noise @ 100kHz Offset</td>
<td>-98</td>
<td></td>
<td></td>
<td>dBC/Hz</td>
</tr>
<tr>
<td>Bias Voltage</td>
<td>5</td>
<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Bias Current</td>
<td>200</td>
<td></td>
<td></td>
<td>mA</td>
</tr>
</tbody>
</table>

Mechanical Specifications

<table>
<thead>
<tr>
<th>Size</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>0.92 in</td>
<td></td>
<td></td>
<td>[23.37 mm]</td>
</tr>
<tr>
<td>Width</td>
<td>1 in</td>
<td></td>
<td></td>
<td>[25.4 mm]</td>
</tr>
<tr>
<td>Height</td>
<td>0.8 in</td>
<td></td>
<td></td>
<td>[20.32 mm]</td>
</tr>
<tr>
<td>Weight</td>
<td>0.105 lbs</td>
<td></td>
<td></td>
<td>[47.63 g]</td>
</tr>
</tbody>
</table>

Configuration

- Waveguide Size: WR-42
- Flange: UG-595/U
- Bias Connector: Pin

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: Waveguide Gunn Oscillator, Center Frequency 24.125 GHz, Tuning Range 1,000 MHz, Phase Noise -98 dBC/Hz, K Band, WR-42 With UG-595/U PEWGN1001
Waveguide Gunn Oscillator, Center Frequency 24.125 GHz, Tuning Range 1,000 MHz, Phase Noise -98 dBc/Hz, K Band, WR-42 With UG-595/U

Environmental Specifications
- Temperature: Operating Range -40 to 85 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data
- Notes:

Waveguide Gunn Oscillator, Center Frequency 24.125 GHz, Tuning Range 1,000 MHz, Phase Noise -98 dBc/Hz, K Band, WR-42 With UG-595/U from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications:

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PEWGN1001 CAD Drawing
Waveguide Gunn Oscillator, Center Frequency 24.125 GHz, Tuning Range 1,000 MHz, Phase Noise -98 dBc/Hz, K Band, WR-42 With UG-595/U

CAD FILE
110815
SCALE A1

FSCM NO. 53919

NOTE:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL TO CHANGE WITHOUT NOTICE AT ANY TIME.
2. DIMENSIONS ARE IN CHARGE.
3. UNLESS OTHERWISE SPECIFIED THE TOLERANCES ARE:
   XX ± 0.1 [1.25]
   XXX ± 0.001 [0.025]

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