## DIELECTRIC RESONATOR OSCILLATORS

<table>
<thead>
<tr>
<th>FEATURES:</th>
<th>PmT DRO-6000 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Customer Specified Frequency</td>
<td>■ Packaged MESFET or BJT devices</td>
</tr>
<tr>
<td>■ Low Phase Noise</td>
<td>■ Low Microphonics</td>
</tr>
<tr>
<td>■ High Vibration Operation</td>
<td>■ SMT Fabrication</td>
</tr>
<tr>
<td>■ Internal Voltage Regulation</td>
<td></td>
</tr>
</tbody>
</table>

### Electrical Specifications:

#### PmT DRO

<table>
<thead>
<tr>
<th>Parameters</th>
<th>6000 Series</th>
<th>6100 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
<td>6000 Series</td>
<td>6100 Series</td>
</tr>
<tr>
<td><strong>Frequency Range</strong></td>
<td>18 to 40 GHz</td>
<td>18 to 40 GHz</td>
</tr>
<tr>
<td><strong>Tuning</strong></td>
<td>Mechanical</td>
<td>Electrical</td>
</tr>
<tr>
<td>Tuning Range, Min.</td>
<td>±10 MHz</td>
<td>±5 MHz</td>
</tr>
<tr>
<td>Power Output, Min.</td>
<td>13 dBm</td>
<td>13 dBm</td>
</tr>
<tr>
<td>Power Output, Max.</td>
<td>3 dB</td>
<td>3 dB</td>
</tr>
<tr>
<td>Frequency Accuracy, Max.</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-50 to +100 ºC</td>
<td>-50 to +100 ºC</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55 to +125 ºC</td>
<td>-55 to +125 ºC</td>
</tr>
<tr>
<td>Temperature Stability, Max.</td>
<td>±0.05%</td>
<td>±0.05%</td>
</tr>
<tr>
<td>Harmonics, Below Carrier, Max.</td>
<td>-20 dBc</td>
<td>-20 dBc</td>
</tr>
<tr>
<td>Spurious Output Below Carrier, Max.</td>
<td>-60 dBc</td>
<td>-60 dBc</td>
</tr>
<tr>
<td>Phase Noise1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 KHz offset</td>
<td>-80 dBc/Hz</td>
<td>-80 dBc/Hz</td>
</tr>
<tr>
<td>100 KHz offset</td>
<td>-95 dBc/Hz</td>
<td>-95 dBc/Hz</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>+15±0.5 VDC</td>
<td>+15±0.5 VDC</td>
</tr>
<tr>
<td>Input Current, Max.</td>
<td>75 mA</td>
<td>75 mA</td>
</tr>
<tr>
<td>Connector</td>
<td>SMA Female standard</td>
<td>SMA Female standard</td>
</tr>
<tr>
<td>Weight, Max.</td>
<td>3.0 oz.</td>
<td>3.0 oz.</td>
</tr>
<tr>
<td>Size</td>
<td>See Outline</td>
<td>See Outline</td>
</tr>
<tr>
<td>Order Information</td>
<td>PmT-DRO-6000 Series- Frequency (GHz)</td>
<td>PmT-DRO-6100 Series-Frequency (GHz)</td>
</tr>
</tbody>
</table>

1 See Phase Noise Plots
Typical Phase Noise Plot:

![Phase Noise Plot](image)

**Gold EMI Filters P/N XSC272D**

- .491
- .250
- .139 TYP

**SMP Full Detent**

- Micro Mode P/N MMPS-2512
- .012 Dia Gold Pin Transition

- .144 TYP

- 4 PLCS .070
- .110
- .325

- .075 R.064 TYP

- .600 .750

- .810
- .650
- .080

- .073 Dia thru 4 PLCS

---

Princeton Microwave Technology Inc. 5 Nami Lane, Mercerville, NJ 08619  Tel: 609-586-8140

www.princetonmicrowave.com