VOLTAGE CONTROLLED OScILLATOR  

TOM9304  
150 - 300 MHz

Features
- Low Noise Bipolar Transistor
- Broad Tuning Range
- Operating Case Temp. -55 °C to + 85 °C
- Environmental Screening available

Specifications

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>TYPICAL Ta= 25°C</th>
<th>MIN/MAX Ta= -55°C to + 85°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>150 - 300 MHz</td>
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</tr>
<tr>
<td>Output Power (dBm)</td>
<td>+13</td>
<td>+10 Min.</td>
</tr>
<tr>
<td>Power Flatness (dB)</td>
<td>±0.5</td>
<td>±1.0 Max.</td>
</tr>
<tr>
<td>Tuning Voltage Range (v)</td>
<td>1 to 18</td>
<td>0 to 20</td>
</tr>
<tr>
<td>Tuning Voltage Sensitivity (MHz/V)</td>
<td>9</td>
<td>3 Min.</td>
</tr>
<tr>
<td>Harmonics (dBc)</td>
<td>-15</td>
<td>-10 Max.</td>
</tr>
<tr>
<td>Spurious (dBc)</td>
<td>&lt; -80</td>
<td>&gt; -80 Max.</td>
</tr>
<tr>
<td>3dB Modulation BW, Zg = 50 Ohm</td>
<td>---</td>
<td>5 MHz Min.</td>
</tr>
<tr>
<td>Pulling (MHz); 12dB RL</td>
<td>5</td>
<td>10 Max.</td>
</tr>
<tr>
<td>Frequency Drift (MHz/ºC)</td>
<td>+15</td>
<td>+15</td>
</tr>
<tr>
<td>Power</td>
<td>Vdc 16</td>
<td>20 Max.</td>
</tr>
<tr>
<td>mA</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Maximum Ratings
- Ambient Operating Temperature -54°C to + 100°C
- Storage Temperature -62°C to + 125°C
- Case Temperature + 125°C
- DC Voltage + 20 Volts
- Maximum DC Tuning Voltage + 20 Volts
- Minimum DC Tuning Voltage 0 Volts

Notes:
- Care should always be taken to effectively ground the case of each unit.

Typical Performance Data

- Output Power vs. Tuning Voltage
- Frequency vs. Tuning Voltage

Legend:
- +25 °C
- +85 °C
- -55°C

Notes:
1. Phase Noise is measured using the Aeroflex PN9000.
2. Worst case phase noise @ 100KHz offset across frequency range and temperature extremes is -120 dBc/Hz.