Voltage-Controlled Oscillator
Surface Mount Module

Applications

- CATV
- Satellite Modems
- Earthstations

Application Notes

- AN-101: Mounting and Grounding
- AN-102: Output Loading
- AN-107: Manual Soldering

Performance Specifications

<table>
<thead>
<tr>
<th>Performance</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oscillation Frequency Range</td>
<td>350</td>
<td></td>
<td>700</td>
<td>MHz</td>
</tr>
<tr>
<td>Phase Noise @ 10 kHz offset (1 Hz BW)</td>
<td>-99</td>
<td></td>
<td></td>
<td>dBc/Hz</td>
</tr>
<tr>
<td>Harmonic Suppression (2nd)</td>
<td>-5</td>
<td>-4</td>
<td></td>
<td>dBc</td>
</tr>
<tr>
<td>Tuning Voltage</td>
<td>0</td>
<td></td>
<td>10</td>
<td>Vdc</td>
</tr>
<tr>
<td>Tuning Sensitivity (avg.)</td>
<td>45</td>
<td></td>
<td></td>
<td>MHz/V</td>
</tr>
<tr>
<td>Power Output</td>
<td>-1</td>
<td>4</td>
<td>9</td>
<td>dBm</td>
</tr>
<tr>
<td>Load Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ω</td>
</tr>
<tr>
<td>Input Capacitance</td>
<td></td>
<td></td>
<td>250</td>
<td>pF</td>
</tr>
<tr>
<td>Pushing</td>
<td></td>
<td></td>
<td>4</td>
<td>MHz/V</td>
</tr>
<tr>
<td>Pulling (14 dB Return Loss, Any Phase)</td>
<td></td>
<td></td>
<td>2</td>
<td>MHz</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40</td>
<td></td>
<td>85</td>
<td>°C</td>
</tr>
<tr>
<td>Package Style</td>
<td></td>
<td></td>
<td>MINI-14S</td>
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</table>

Power Supply Requirements

<table>
<thead>
<tr>
<th>Power Supply</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage (Vcc, nom.)</td>
<td>5</td>
<td></td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>Supply Current (Icc)</td>
<td>13</td>
<td>17</td>
<td></td>
<td>mA</td>
</tr>
</tbody>
</table>

Additional Notes

- AN-101: Mounting and Grounding
- AN-102: Output Loading
- AN-107: Manual Soldering
Voltage-Controlled Oscillator
Surface Mount Module

V350ME52-LF
Rev A1

Tuning Curve, typ.

FREQUENCY (MHz)

TUNING VOLTAGE (Vdc)

- 85°C
- 25°C
- -40°C

Power Curve, typ.

FREQUENCY (MHz)

- 85°C
- 25°C
- -40°C

Footprint

RECOMMENDED FOOTPRINT
SEVERAL HOLES OF Ø0.015 ON GND. PLANE ARE RECOMMENDED FOR GOOD GROUNDING.

0.030 MIN. CUTBACK FROM LIVE PADS

Physical Dimensions

NOTE: ALL DIMENSIONS ARE IN INCHES
TOL: XXX: +/- 0.010

PACKAGE
MINI-14S 0.220
MINI-14S-LOW 0.160
MINI-14S-L 0.130

Did You Know?

Z-COMM XXXXXXXX-LF
W/O# D/C

LFSuffix = RoHS Compliant. All specifications are subject to change without notice.

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