AXIOM35

HIGH STABILITY MINIATURE OCXO, SINE WAVE OUTPUT

FEATURES

- High stability till +/-5 ppb over temperature range
- Thru hole package size 20.5 x 20.5 x 12 mm.
- Sine wave output signal
- Standard frequencies: 10.0 / 20.0 / 100.0 MHz

Parameter | min. | typ. | max. | Unit | Condition
--- | --- | --- | --- | --- | ---
Frequency range | 10 | 125 | MHz | | |
Standard frequencies | 10.000 / 20.000 / 100.000 MHz | | | | |
Frequency stability | ppm | | | | |
Initial tolerance @+25°C | ± 500 ppb | Vc @ centre value | | | |
vs. operating temperature range (steady state) | ± 200 ppb | Option II = "200" | | | |
| ± 100 ppb | Option II = "100" | | | |
| ± 50 ppb | Option II = "50" | | | |
| ± 25 ppb | Option II = "25" | | | |
| ± 10 ppb | Option II = "10" | | | |
| ± 5 ppb | Option II = "05" | | | |
operating temperature range | -10°C | 60°C | Note 2 | | |
vs. supply voltage variation | ± 10 ppb | | | | |
v. load change | ± 10 ppb | | | | |
Long term (aging) per day, after 30 days operation | ± 10 ppb | Option II = "200", "100", "50" | All other Options II | | |
| ± 2 ppb | | | | |
long term (aging) 1st year, after 30 days operation | ± 200 ppb | Option II = "200", "100", "50" | All other Options II | | |
| ± 100 ppb | | | | |
Frequency adjustment range | ± 0.8 ppm | | | | |
Electronic Frequency Control (EFC) | ± 1 ppm | | | | |
EFC voltage Vc | 0.15 | 1.65 | 3.15 | V | Option I = "33"
| 0.25 | 2.5 | 4.75 | V | Option I = "50"
EFC slope (Df / DVc) positive | | | | | |
EFC input impedance | 100 Ω | | | | |
RF output | Sine wave | | | | |
Signal waveform | | | | | |
Load | 50 Ω | ± 10 % | | | |
Output level | +3 dBm | | Note 4 | | |
Harmonics attenuation | -20 dBc | | | | |
Warm-up time | 5 min | | | | |
Reference voltage VREF output | | | | | |
Note 3 | | | | | |
Supply voltage Vc | 4.75 | 5.0 | 5.25 | V | Option I = "50"
| 11.4 | 12 | 12.6 | V | Option I = "12"
Current consumption (steady state) @ +25°C | 200 mA | | | | |
| 100 mA | | | | |
Current consumption (warm-up) | 500 mA | | | | |
| 250 mA | | | | |
Operable temperature range | -20°C | +70°C | | | |
Storage temperature range | -40°C | +85°C | | | |
Enclosure (see drawing) L x W x H | 20.5x20.5x12 max. mm | | IEC 60679-3 CO 15 | | |
Weight | 10 gram | | | | |
Datasheet

THRU HOLE OCXO

AXIOM35 HIGH STABILITY MINIATURE OCXO, SINE WAVE OUTPUT

Notes:
1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Other operating temperature range on request
3. Other reference voltages on request
4. Higher output level on request

Ordering Code:

<table>
<thead>
<tr>
<th>Model (Specification)</th>
<th>Option I</th>
<th>Option II</th>
<th>Frequency [MHz]</th>
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<tbody>
<tr>
<td>AXIOM35</td>
<td>12</td>
<td>100</td>
<td>10.000</td>
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</table>

Environmental conditions

<table>
<thead>
<tr>
<th>Test</th>
<th>IEC 60068 Part ...</th>
<th>IEC 60679-1 clause ...</th>
<th>Test conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealing tests</td>
<td>2-17</td>
<td>4.6.2</td>
<td>Gross leak: Test Qc, Fine leak: Test Qk</td>
</tr>
<tr>
<td>Solderability</td>
<td>2-20</td>
<td>2-58</td>
<td>Test Ta (235 ± 5)°C Method 1, Test Tb Method 1A, 5s</td>
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<tr>
<td>Shock*</td>
<td>2-27</td>
<td>4.6.8</td>
<td>Test Ea, 3 x per axes 100g, 6 ms half-sine pulse</td>
</tr>
<tr>
<td>Vibration, sinusoidal*</td>
<td>2-6</td>
<td>4.6.7</td>
<td>Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g</td>
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<tr>
<td>Endurance tests</td>
<td></td>
<td></td>
<td>30 days @ 85°C, OCXO @25°C, 1000h, 2000h, 8000h @85°C</td>
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<tr>
<td>- ageing</td>
<td>4.7.1</td>
<td></td>
<td></td>
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<tr>
<td>- extended aging</td>
<td>4.7.2</td>
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<td></td>
</tr>
</tbody>
</table>

Other environmental conditions on request

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