LOW PROFILE PRECISION OCXO MV201

**Features:**
- High stability vs. temperature: up to \(\pm 3 \times 10^{-10}\)
- Package height: from 16 mm down to 12.7 mm
- Power supply: 5V or 12V
- Replacement of MV62 OCXO
- Frequency range: 10.0 – 40.0 MHz

**ORDERING GUIDE: MV201–B 1 F–12V–SIN–Y16–10.0MHz–LN**

<table>
<thead>
<tr>
<th>Availability of certain stability vs. operating temperature range (for 10 MHz, 12V)</th>
<th>Power supply</th>
<th>Output</th>
<th>Package type</th>
</tr>
</thead>
<tbody>
<tr>
<td>±2x10^{-9}</td>
<td>5V</td>
<td>SIN</td>
<td>Y12.7</td>
</tr>
<tr>
<td>±2x10^{-10}</td>
<td>12V</td>
<td>HCMOS</td>
<td>Y16</td>
</tr>
</tbody>
</table>

**Phase noise, dBC/Hz,**
10 MHz

<table>
<thead>
<tr>
<th>Frequency, dBC/Hz</th>
<th>LN</th>
<th>ULN</th>
</tr>
</thead>
<tbody>
<tr>
<td>For 12 V, SIN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Hz</td>
<td>&lt;95</td>
<td>&lt;100</td>
</tr>
<tr>
<td>10 Hz</td>
<td>&lt;125</td>
<td>&lt;130</td>
</tr>
<tr>
<td>100 Hz</td>
<td>&lt;145</td>
<td>&lt;153</td>
</tr>
<tr>
<td>1000 Hz</td>
<td>&lt;150</td>
<td>&lt;158</td>
</tr>
<tr>
<td>10000 Hz</td>
<td>&lt;155</td>
<td>&lt;160</td>
</tr>
</tbody>
</table>

**Short term stability (Allan deviation) per 1 sec (for 10MHz)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency stability vs. load changes</td>
<td>(\pm 5 \times 10^{-10})</td>
</tr>
<tr>
<td>Frequency stability vs. power supply changes</td>
<td>(\pm 5 \times 10^{-10})</td>
</tr>
<tr>
<td>Warm-up time with accuracy of (\pm 2 \times 10^{-9}) at 25°C</td>
<td>&lt;3 min</td>
</tr>
<tr>
<td>Power supply (Us)</td>
<td>12V ±5%</td>
</tr>
<tr>
<td>Steady state current consumption at 25°C</td>
<td>&lt;200mA</td>
</tr>
<tr>
<td>Peak current consumption during warm-up (for “D” temp. range)</td>
<td>&lt;500mA</td>
</tr>
<tr>
<td>Frequency pulling range (for 10 MHz) with external voltage range (Uin)</td>
<td>0…5V</td>
</tr>
<tr>
<td>with external potentiometer</td>
<td>20 kOhm</td>
</tr>
<tr>
<td>Reference voltage (Uref)</td>
<td>+5V</td>
</tr>
</tbody>
</table>

**Output HCMOS SIN**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>&lt;0.5V…&gt;4.0V</td>
</tr>
<tr>
<td>Load</td>
<td>10kOhm/30pF</td>
</tr>
<tr>
<td>Rise/Fall time</td>
<td>&lt;6 ns (&lt;3 ns optional)</td>
</tr>
<tr>
<td>Harmonic suppression</td>
<td>&gt;30dB (&lt;50dB optional)</td>
</tr>
</tbody>
</table>

**Additional notes:**
- Please consult factory for daily aging values. Normally typical correspondence of daily aging per day to aging per year is as following: \(\pm 1 \times 10^{-9}\) year - \(\pm 1 \times 10^{-9}\)/day; \(\pm 5 \times 10^{-10}\) year - \(\pm 5 \times 10^{-10}\)/day; \(\pm 3 \times 10^{-10}\)/year - \(\pm 3 \times 10^{-10}\)/day.
- Please mention RoHS requirement (if any) while requesting for quote or while placing PO.
- For non standard operating temperature ranges please use the following two letters designations (first letter for the lower limit, second letter for the upper limit), °C:

| A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R | S | T | U | W | X |
| -60 | -55 | -50 | -45 | -40 | -30 | -10 | 0 | +10 | +30 | +40 | +50 | +55 | +60 | +65 | +70 | +75 | +80 | +85 |

**Features:**
- Steady state current consumption @ 25°C
- Frequency stability vs. load changes
- Frequency stability vs. power supply changes
- Warm-up time with accuracy of \(\pm 2 \times 10^{-9}\) at 25°C<br>(for “D” temp. range)
- Power supply (Us)
- Steady state current consumption at 25°C
- Peak current consumption during warm-up (for “D” temp. range)
- Frequency pulling range (for 10 MHz) with external voltage range (Uin)
- with external potentiometer
- Reference voltage (Uref)

**Package drawing:**

H=19 mm for Y19; H=16 mm for Y16; H=12.7 mm for Y12.7.

**Storage temperature range**

-55…+85°C

**Features:**
- Steady state current consumption @ 25°C
- Frequency stability vs. load changes
- Frequency stability vs. power supply changes
- Warm-up time with accuracy of \(\pm 2 \times 10^{-9}\) at 25°C<br>(for “D” temp. range)
- Power supply (Us)
- Steady state current consumption at 25°C
- Peak current consumption during warm-up (for “D” temp. range)
- Frequency pulling range (for 10 MHz) with external voltage range (Uin)
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