HIGH STABILITY MINIATURE OCXO MV333

**Features:**
- Small package: 25.8x25.8x12.7 mm
- Low phase noise options: up to -173 dBc/Hz
- Long term stability: up to ±2x10^-8/year
- RoHS compliant
- Standard frequency: 10.0 MHz

**ORDERING GUIDE: MV333 – C 5 F – 10MHz – 3**

**Availibility of certain stability vs. operating temperature range**

<table>
<thead>
<tr>
<th></th>
<th>5°C</th>
<th>10°C</th>
<th>20°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>C</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>D</td>
<td>A</td>
<td>A</td>
<td>C</td>
</tr>
</tbody>
</table>

- A – available
- C – consult factory

For other temperature ranges see designation at the end of the Data Sheet.

**Package drawing:**

**Vibrations:**
- Frequency range: 10-500 Hz
- Acceleration: 5 g

**Shock:**
- Acceleration: 75 g
- Duration: 3±1 ms

**Humidity @ 25°C:**
- 98%

**Storage temperature range:**
- -55…+70°C

**Phase noise, dBc/Hz, for 10MHz, SIN:**

<table>
<thead>
<tr>
<th>Frequency range</th>
<th>1 Hz</th>
<th>10 Hz</th>
<th>100 Hz</th>
<th>1000 Hz</th>
<th>10000 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hz</td>
<td>&lt; -95</td>
<td>&lt; -100</td>
<td>&lt; -90</td>
<td>&lt; -95</td>
<td></td>
</tr>
<tr>
<td>10 Hz</td>
<td>&lt; -125</td>
<td>&lt; -130</td>
<td>&lt; -125</td>
<td>&lt; -130</td>
<td></td>
</tr>
<tr>
<td>100 Hz</td>
<td>&lt; -155</td>
<td>&lt; -158</td>
<td>&lt; -158</td>
<td>&lt; -158</td>
<td></td>
</tr>
<tr>
<td>1000 Hz</td>
<td>&lt; -165</td>
<td>&lt; -168</td>
<td>&lt; -168</td>
<td>&lt; -168</td>
<td></td>
</tr>
<tr>
<td>10000 Hz</td>
<td>&lt; -170</td>
<td>&lt; -173</td>
<td>&lt; -173</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Short term stability (Allan deviation) per 1 sec, for 10 MHz:**
- < 5x10^-12

**Frequency stability vs. load changes (±5%)**
- < ±5x10^-10

**Frequency stability vs. power supply changes (±5%)**
- < ±5x10^-10

**Warm-up time within accuracy of ±2x10^-8/°C:**
- < 5 min

**Power supply (Us):**
- 12V±5%

**Steady state current consumption @ 25°C:**
- < 170 mA

**Peak current consumption during warm-up:**
- < 500 mA

**Frequency pulling range:**
- > ±4.0x10^-7

**Control voltage range (Uin):**
- 0…5 V

**Reference voltage (Uref):**
- +5 V

**Output:**
- SIN

**Level:**
- > 600 mV

**Load:**
- 50 Ohm±5%

**Harmonics:**
- > 30 dBc

**Additional notes:**
- Please consult factory for daily aging values. Normally typical correspondence of daily to aging per year is as following: ±1x10^-7/year – ±1x10^-5/day; ±5x10^-9/year – ±5x10^-10/day; ±3x10^-9/year – ±3x10^-10/day
- 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| -20| -10| 0  | +10| +30| +40| +45| +50| +55| +60| +65| +70| +75| +80| +85|