PRECISION OCXO IN SMD PACKAGE MV140

Features:
- High frequency stability vs. temperature – up to ±5.0x10⁻⁹
- Standard 25x22 mm SMD package
- Oven alarm & oscillator On/Off function
- Available as RoHS
- Frequency range: 10 – 20 MHz

ORDERING GUIDE: MV140–B 20 F–10.0 MHz–1

<table>
<thead>
<tr>
<th>Availability of certain stability vs. operating temperature range</th>
<th>±5x10⁻⁹</th>
<th>±2x10⁻⁹</th>
<th>±1x10⁻⁹</th>
<th>±5x10⁻¹⁰</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0…+55°C</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>B</td>
<td>-10…+60°C</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>C</td>
<td>-20…+70°C</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>D</td>
<td>-40…+70°C</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>EX</td>
<td>-40…+85°C</td>
<td>A</td>
<td>C</td>
<td>NA</td>
</tr>
</tbody>
</table>

A – available, NA – not available, C – consult factory

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

Package drawing:

Short term stability (Allan deviation) per 1 sec, for 10 MHz
- <5x10⁻¹² <5x10⁻¹¹ <5x10⁻¹⁰

Frequency stability vs. load changes
- ±5x10⁻¹⁰ ±2x10⁻⁹ ±5x10⁻⁹

Frequency stability vs. power supply changes
- ±5x10⁻¹⁰ ±2x10⁻⁹ ±5x10⁻⁹

Power supply (Us)
- 12V±5%

Current maximum value at 25°C
- 360 mA

Warm-up time within ±1x10⁻⁷ @ 25°C
- <3 min

Frequency pulling range
- ±5x10⁻⁷

with external voltage range (Uin)
- 0…±5 V

Reference voltage output (Uref)
- +5 V

Output
- SIN

Level
- >400 mV

Load
- 50 Ohm

Phase noise, (for 10 MHz) , dBc/Hz
- <100 <90 <80

10 Hz
- <130 <120 <110

100 Hz
- <145 <140 <135

1000 Hz
- <150 <150 <145

10000 Hz
- <155 <155 <155

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

Shock:
- Acceleration: 100 g

Storage temperature range:
- -55…+85°C

Additional notes:
- Showed values of frequency stability vs. temperature usually are tested in Still Air test conditions. Please inform factory about different conditions in operation to provide appropriate tests.
- 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 |