Oscillator JT22S(V) · (VC)TCXO

- Temp. Compensated Crystal Oscillator, 2.5 x 2.0 mm
- Low power VCTCXO or TCXO
- Temperature range -40 °C ~ +85 °C available
- ± 1.0 ppm stability available
- Ceramic/metal package

### GENERAL DATA

**TYPE**

<table>
<thead>
<tr>
<th>JT22S / JT22SV</th>
<th>frequency range</th>
<th>9.5 ~ 52.0 MHz</th>
</tr>
</thead>
</table>

**frequency tolerance/ stability**

- at +25°C: ± 1.5 ppm (incl. 2x reflow)
- temperature: ± 1 ppm
- aging first year: ± 0.2 ppm (at VDC ± 5%)
- supply voltage: ± 0.2 ppm
- load change: ± 0.2 ppm

**current consumption**

1.5 mA max. < 26 MHz / 2.5 mA max. < 52 MHz

**supply voltage**

- VDC: 1.8 / 2.5 / 2.8 / 3.0 / 3.3 (± 5 %)

**operating temperature**

See table 1

**storage temperature**

-40 °C ~ +85 °C

**output load**

- Nom.: 10 KΩ / 10 pF
- Level min.: 0.8 Vpp (clipped sine)

**external tuning range**

JT22SV: ± 8 ppm min.

**external tuning voltage**

JT22SV:

- 0.9 V ± 0.9 V at VDC = 1.8 V (standard)
- 1.5 V ± 1.0 V at VDC = 2.5 V (standard)
- 1.4 V ± 1.0 V at VDC = 2.5 V (option)

**start-up time max.**

2.5 ms

**phase noise**

- at 100 Hz: -109 dBc/Hz typ.
- at 1 KHz: -133 dBc/Hz typ.
- at 26 MHz: -148 dBc/Hz typ.

**TABLE 1: FREQUENCY STABILITY VS. TEMPERATURE**

<table>
<thead>
<tr>
<th>Operating temperature code</th>
<th>Frequency stability code / ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: -30 °C ~ +80 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>B: -20 °C ~ +70 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>C: -10 °C ~ +60 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>D: 0 °C ~ +85 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>E: 0 °C ~ +55 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>F: 10 °C ~ +70 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>G: 30 °C ~ +75 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>H: 20 °C ~ +75 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>K: 40 °C ~ +85 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>L: -20 °C ~ +85 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
<tr>
<td>M: -30 °C ~ +85 °C</td>
<td>± 5.0 ± 3.0 ± 2.5 ± 2.0 ± 1.5 ± 1.0</td>
</tr>
</tbody>
</table>

**NOTE**

- TCXO JT22S: pin #1 connected to GND
- VCTCXO JT22SV: pin #1 is control voltage VC
- External AC coupling for output recommended
- Other nominal supply voltages within 1.8 V ~ 3.3 V need to be specified, ask for availability

### ORDER INFORMATION

**Oscillator JT22S**

- Frequency range: 9.5 ~ 52.0 MHz
- JT22S = TCXO
- JT22SV = VCTCXO

**Example:** O 26.0-JT22SV-A-G-3.3-1.5-LF (Suffix LF = RoHS compliant / Pb free)
Oscillator JT22S(V) · (VC)TCXO

**Taping Specification**

- Standard packing unit is 500 pieces per reel
- Non-multiple packing units are only supplied taped / bulk

**Reflow Soldering Profile**

- Temperature (°C): 60 - 180 s
- Time (s): 60 s max.
- 260 °C max.
- 220 ±5 °C
- 180 ±5 °C
- 10 s max.

**Marking**

- Frequency
- Company code / Stability code / Date code

**Packaging Note**

- Standard packing unit is 500 pieces per reel
- Non-multiple packing units are only supplied taped / bulk

Jauch Quartz GmbH • e-mail: info@jauch.com • full data can be found under: www.jauch.com

All specifications are subject to change without notice.