**Table 1: Frequency Stability vs. Temperature**

<table>
<thead>
<tr>
<th>Temperature Range</th>
<th>Stability @ 25°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>-20 °C ~ +70 °C</td>
<td>±10 ppm</td>
</tr>
<tr>
<td>-40 °C ~ +85 °C</td>
<td>±15 ppm</td>
</tr>
<tr>
<td>-40 °C ~ +105 °C</td>
<td>±20 ppm</td>
</tr>
<tr>
<td>-40 °C ~ +125 °C</td>
<td>±30 ppm</td>
</tr>
</tbody>
</table>

**JXS22**

- Frequency range: 12.0 ~ 54.0 MHz (fund. AT-cut)
- Frequency tolerance at 25 °C: ±10 ppm / ±30 ppm
- Load capacitance $C_L$: 8/10/12 pF standard
  (option: 6 pF ~ 30 pF / series)
- Shunt capacitance $C_O$: < 5 pF
- Storage temperature: -40 °C ~ +90 °C
- Drive level max.: 100 μW (10 μW recommended)
- Aging: < ±3 ppm first year
  (option: < ±1 ppm first year for tol. ±10 ppm)

**Example:** Q 32.0-JXS22-12-10/20-T1-FU-LF

(Suffix LF = RoHS compliant / Pb free)

**Order Information**

- **Type:** JXS22
- **Frequency:** 12.0 ~ 54.0 MHz
- **Load Capacitance:** 8/10/12 pF standard
  (option: 6 pF ~ 30 pF / series)
- **Tolerance at 25 °C:** ±10 ppm / ±30 ppm
- **Stability vs. Temp. Range:**
  - ±10 ppm
  - ±15 ppm
  - ±20 ppm
  - ±30 ppm
  - ±50 ppm
  - ±100 ppm
- **Option:** blank = -20 °C ~ +70 °C
  T1 = -40 °C ~ +85 °C
  T2 = -40 °C ~ +105 °C
  T3 = -40 °C ~ +125 °C
  FU = for fundamental frequencies ≥ 20 MHz
  HMR = high mechanical reliability

**MARKING**

- Frequency with load capacitance code
- Company code / date code / internal code
- Date code: year/month; A ~ M: Jan. - Dec.; example: 8A = 2018 January

**DIMENSIONS**

- **Top View:**
- **Side View:**
- **Bottom View:**

**ESR (Series Resistance RS)**

<table>
<thead>
<tr>
<th>Frequency in MHz</th>
<th>Vibration Mode</th>
<th>ESR Max. in Ω</th>
<th>ESR Typ. in Ω</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0 ~ 12.999</td>
<td>fund. - AT</td>
<td>150</td>
<td>120</td>
</tr>
<tr>
<td>13.0 ~ 15.999</td>
<td>fund. - AT</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td>16.0 ~ 17.999</td>
<td>fund. - AT</td>
<td>80</td>
<td>50</td>
</tr>
<tr>
<td>18.0 ~ 19.999</td>
<td>fund. - AT</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>20.0 ~ 24.999</td>
<td>fund. - AT</td>
<td>60</td>
<td>35</td>
</tr>
<tr>
<td>25.0 ~ 29.999</td>
<td>fund. - AT</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>30.0 ~ 34.999</td>
<td>fund. - AT</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>35.0 ~ 54.000</td>
<td>fund. - AT</td>
<td>40</td>
<td>20</td>
</tr>
</tbody>
</table>

**Jauch Quartz GmbH**

- e-mail: info@jauch.de
- full data can be found under: www.jauch.com
- All specifications are subject to change without notice
SMD Quartz Crystal · JXS22

Taping Specification

1000 pcs per reel

Feeding

LOAD CAPACITANCE CODES

- 8 pF: k
- 9 pF: n
- 10 pF: h
- 11 pF: l
- 12 pF: a
- 13 pF: v
- 14 pF: x
- 15 pF: j
- 16 pF: b
- 17 pF: t
- 18 pF: f
- 20 pF: c
- 22 pF: g
- 24 pF: d
- 25 pF: r
- 27 pF: w
- 30 pF: .

Series: s

T: 3rd OT

Reflow Soldering Profile

Temperature (°C)

- 50
- 100
- 150
- 200
- 260

Time (s)

- 10 s max
- 60 - 180 s
- 60 s max

Note: parts are also suitable for soldering systems with lead (Pb) content

Example 20.0 MHz / 12 pF: 20a00

Note: parts are also suitable for soldering systems with lead (Pb) content.