90SMX & 91SMX CRYSTALS

ISSUE 11; 1 NOVEMBER 2010 – RoHS 2002/95/EC

Description

- Industry standard package
- Suitable for real time clock applications
- Plastic encapsulated
- Stock parts listed at the beginning of this chapter

General Specifications

- Load Capacitance (C_L): 6pF and 12.5pF
- Drive Level: 1.0µW max
- Ageing ±5ppm max per year at 25°C
- Shunt Capacitance (C_0): 1pF typ

Standard Frequency Tolerance

- ±20ppm

Operable Temperature Range

- –40 to 85°C

Storage Temperature Range

- –55 to 125°C

Environmental

- Drop: 75cm drop (3 times) onto hard wooden board
- Vibration: 1.5mm amplitude, 10Hz-60Hz, 2-3mins in 3 mutually perpendicular planes, duration 2hrs each plane

Packaging

- Loose in bulk pack, 100pcs per bag
- Tape and reel in accordance with EIA-481-D, 2kpcs per reel (please see pages 372 & 373)

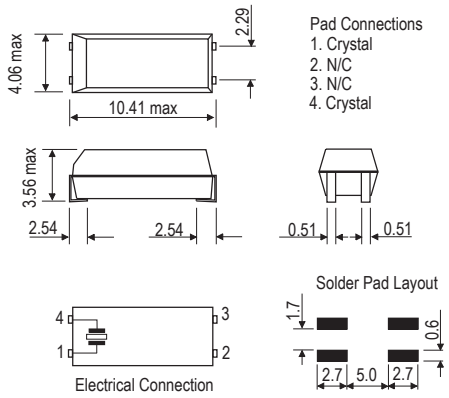
Ordering Information (*minimum required)

- Frequency*
- Model*
- Tolerance @25°C
- Load Capacitance*

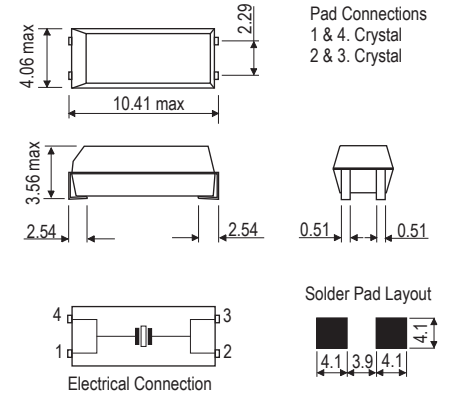
Example

- 32.768kHz 90SMX 20/-/-/12.5

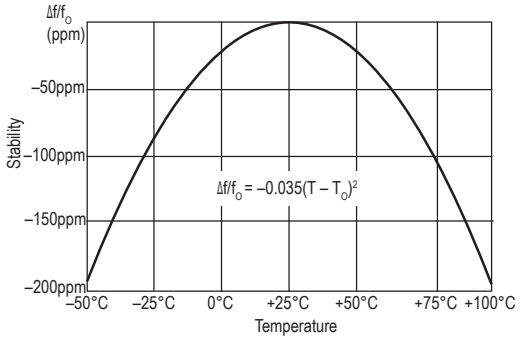
Outline (mm) 90SMX



Outline (mm) 91SMX



Typical Frequency Stability Characteristic



IQD Frequency Products Ltd, Station Road, Crewkerne, Somerset TA18 8AR, United Kingdom
+44 (0)1460 270200; Web: www.iqdfrequencyproducts.com
Americas - California, +1 (0)650 798 5047; Asia Pacific - Taiwan, +886 (0)2 8758 2283

Electrical Specifications – maximum limiting values

Frequency Range	Frequency Tolerance @25°C ±2°C	Operable Temperature Range	Typical Frequency Stability Coefficient	ESR Max	Vibration Mode
32.7680kHz	±20ppm	–40 to 85°C	–0.035/°C^2	50kΩ	Tuning Fork