



ISSUE 2; January 2012 - RoHS 2011/65/EU

Description

- Plastic encapsulated surface mount crystal suitable for non safety-critical automotive applications. Qualified to AEC-Q200 and available with TS16949 release.

Frequency Range

- Frequency 32.768kHz
- Frequency Tolerance ± 20 ppm

General Specification

- Load Capacitance (CL) 12.5pF Standard
- Drive Level 0.2 μ W max
- Ageing ± 5 ppm max per year @ 25°C
- Shunt Capacitance (C0) 2.5pF max

Operable Temperature Range

- -40 to 85°C

Frequency Stability

- Frequency Stability Coefficient: -0.034/°C² typical

Environmental Parameters

- Storage Temperature Range: -40 to 105°C
- Qualified to AEC-Q200

Ordering Information (*minimum required)

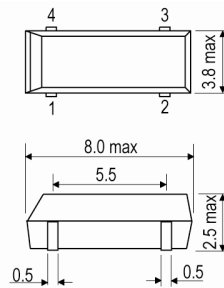
- Frequency Model*
Frequency Tolerance (@ 25°C)
Operating Temperature Range
Load Capacitance*
(*minimum required)
- Example
32.768kHz 85SMX AUTO
20I-I-12.5

Packing Details

- Pack Style: **Bulk** Loose in bulk pack
Pack Size 100
- Pack Style: **Reel** Tape and reel in accordance with EIA-481-D
Pack Size 3,000
- Alternative packing options available

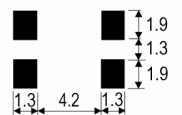


Outline (mm)



- Pad Connections
1. Crystal
 2. N/C
 3. N/C
 4. Crystal

Solder Pad Layout



Sales Office Contact Details:

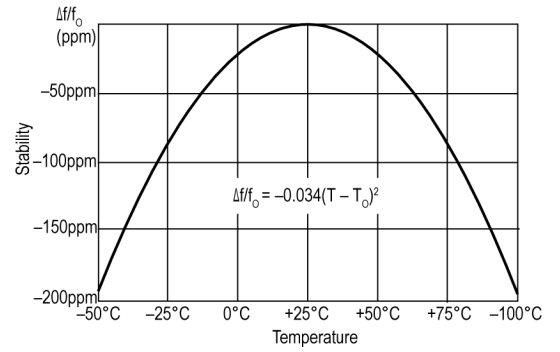
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Typical Frequency Stability Characteristics



Electrical Specification - maximum limiting values

Frequency Range	Frequency Tolerance @ 25°C	Typical Frequency Stability Coefficient	Temperature Range	ESR Max	Vibration Mode
32.768kHz	±20ppm	-0.034ppm/°C ²	-40 to 85°C	50kΩ	Tuning Fork

This document was correct at the time of printing; please contact your local sales office for the latest version

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