

ISSUE 5; April 2024

Description

- 2.0 x 1.2mm SMD crystal in a hermetically sealed ceramic package with an electron beam sealed metal lid. Suitable for real time clock applications.

Frequency Parameters

- Frequency: 32.768kHz
- Frequency Tolerance: $\pm 20.00\text{ppm}$
- Tolerance Condition: @ 25°C $\pm 5^\circ\text{C}$
- Ageing: $\pm 3\text{ppm}$ max per year @ 25°C
- Frequency Stability Coefficient: $-0.03 \pm 0.01\text{ppm}/^\circ\text{C}^2$
- Drive Level: 0.1 μW recommended, $\pm 0.5\mu\text{W}$ max
- Motional Capacitance (C1): 6.5fF typ

Electrical Parameters

- Load Capacitance (CL): 5.0pF to 12.5pF
- Shunt Capacitance (C0): 1.3pF typ, 1.7pF max

Operating Temperature Ranges

- 40 to 85°C
- 40 to 105°C

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: IEC 60068-2-27: 1000g, 1ms, 3 times in each of the 3 mutually perpendicular planes.
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes for the total of 6 hours (2 hours in each plane).

Manufacturing Details

- Maximum Reflow Temperature: 260°C for 5secs max
- RoHS Terminations: Au over Ni over W base
- RoHS Reflow: 260°C max for 5secs max

Ordering Information

- Frequency Model*
- Frequency Tolerance (@ 25°C)
- Load Capacitance* (*minimum required)
- Example: 32.768kHz IQXC-25 20/-/-12.5

Compliance

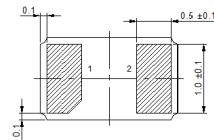
- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

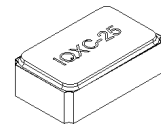
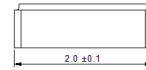
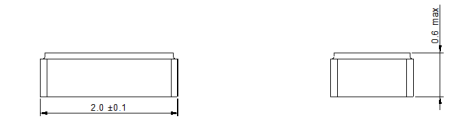
- Tape & reel in accordance with EIA-481. Quantities below the standard reel size to be supplied on cut tape.
- Standard Reel Quantity: 3,000 Pieces



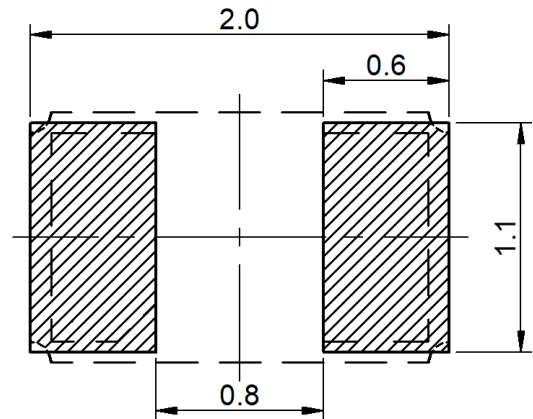
Outline (mm)



Pad No	Pad Connection
1	Crystal
2	Crystal



Recommended Solder Pad Layout



Sales Office Contact Details:

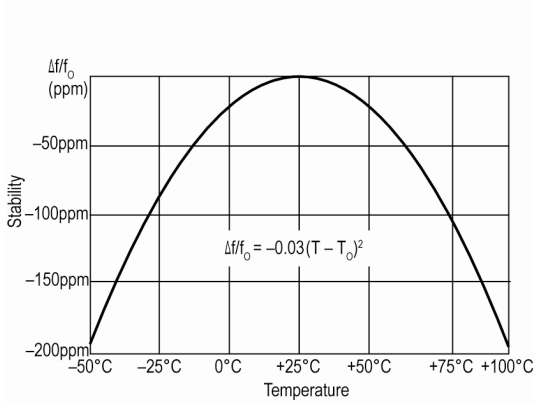
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Typical Frequency Stability Characteristics



Electrical Specification - maximum limiting values

Frequency	Temperature Range	Stability	Over Tone Order	ESR
	°C	ppm		Ω
32.768000kHz	-40 to 105	-	Fundamental	100,000
	-40 to 85	-	Fundamental	90,000

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