

ISSUE 3; July 2021

### 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:  $\pm 20.00$ ppm
- Tolerance Condition: @ 25°C  $\pm 5^\circ\text{C}$
- Ageing:  $\pm 3$ ppm max per year @ 25°C
- Frequency Stability Coefficient:  $-0.03/^\circ\text{C}^2$  typ
- Drive Level:  $0.1\mu\text{W} \pm 0.01\mu\text{W}$  recommended,  $\pm 0.5\mu\text{W}$  max
- Motional Capacitance (C1): 7fF typ

### Electrical Parameters

- Load Capacitance (CL): 6.0pF to 12.5pF
- Shunt Capacitance (C0): 1.3pF typ, 1.7pF max

### Operating Temperature Ranges

- 40 to 85°C

### Environmental Parameters

- Storage Temperature Range: -40 to 85°C
- Shock: IEC 60068-2-27: 1000G, 1ms, 3 times in each of 3 mutually perpendicular planes.
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs).

### 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

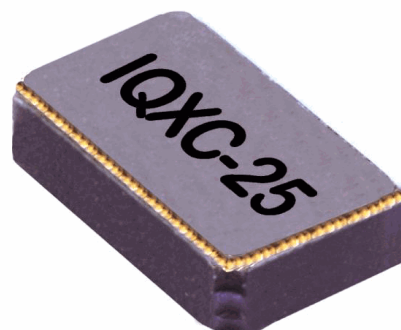
- Frequency Model\*  
Frequency Tolerance (@ 25°C)  
Load Capacitance\*  
(\*minimum required)
- Example  
32.768kHz IQXC-25  
20/-/12.5

### Compliance

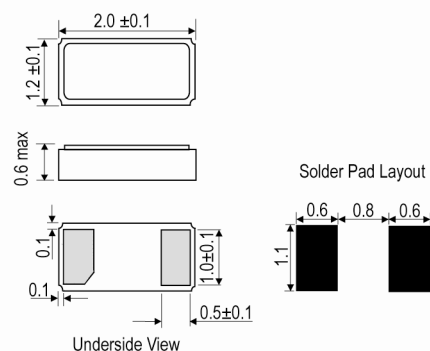
- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

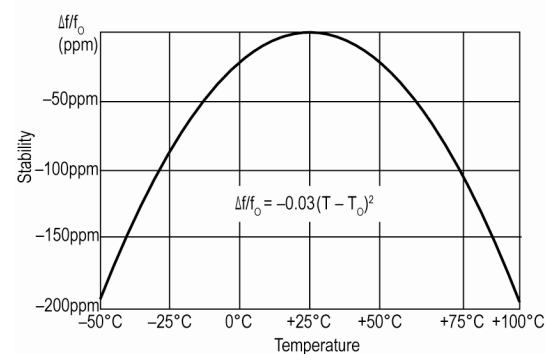
- Pack Style: Cutt In tape, cut from a reel  
Pack Size: 100
- Pack Style: Reel Tape & reel in accordance with EIA-481-D  
Pack Size: 3,000



### Outline (mm)



### Typical Frequency Stability Characteristics



### Sales Office Contact Details:

UK: +44 (0)1460 270200

USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

**Electrical Specification - maximum limiting values**

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

---

**Sales Office Contact Details:**

UK: +44 (0)1460 270200

USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)