

Customer Part:



Description

- 32.768kHz miniature 2 x 1.6mm crystal oscillator in an hermetically sealed ceramic package with a seam sealed metal lid.
- Model IQXO-402
- Model Issue number 3

Frequency Parameters

- Frequency 32.7680kHz
- Frequency Stability $\pm 100.00\text{ppm}$
- Operating Temperature Range -40.00 to 125.00°C
- Ageing $\pm 3\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Supply Voltage $3.3\text{V} \pm 10\%$
- Current Draw 0.200mA

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF
- Rise and Fall Time 100.0ns max
- Duty Cycle 40/60%

Output Control

- Standby Operation:
Logic '1' ($\geq 70\%V_s$) to pad 1 enables oscillator output
Logic '0' ($\leq 30\%V_s$) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state.
No connection to pad 1 enables oscillator output.
- Standby Current:
 $10\mu\text{A}$ max @ -40 to 85°C
 $20\mu\text{A}$ max @ -40 to 125°C
- Start-up Time: 10ms max
 0.3ms typ to 90% of final amplitude (under ideal conditions @ 25°C)

Environmental Parameters

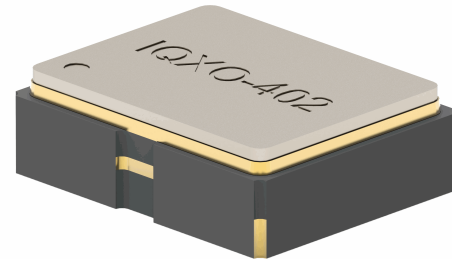
- Storage Temperature Range: -55 to 125°C
- Shock : 1500G , 0.5ms , 3 times for each surface, total 18 times.
- Vibration: Frequency range: $20\sim 2000\text{Hz}$, peak to peak amplitude 1.52mm , peak acceleration: 20G (196m/s^2), 3 directions (X, Y,Z), each cycle: 20min , 4 cycles for each direction.

Manufacturing Details

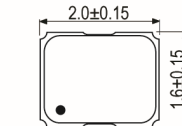
- RoHS Terminations Au over Ni
- RoHS Reflow Temp 260°C max for 10s max

Compliance

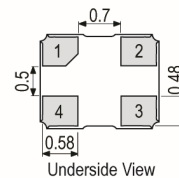
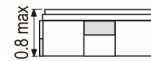
- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



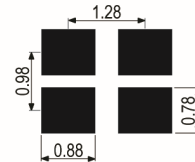
Outline (mm)



- Pad Connections
- Standby Operation
 - GND
 - Output
 - +Vs



Solder Pad Layout



Sales Office Contact Details:

UK: +44 (0)1460 270200

Germany: 0800 1808 443

France: 0800 901 383

USA: +1.760.318.2824

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com



Customer Part:

Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 3,000
- *Alternative packing option available*

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