

Customer Part:



Description

- Standard 2 x 1.6 crystal oscillator in a ceramic package with a seam sealed metal lid, hermetically sealed
- Model IQXO-542
- Model Issue number 3

Frequency Parameters

- Frequency 13.0MHz
- Frequency Stability $\pm 50.00\text{ppm}$
- Operating Temperature Range -40.00 to 85.00°C
- Ageing $\pm 5\text{ppm}$

Electrical Parameters

- Supply Voltage $1.8\text{V} \pm 10\%$
- Current Draw 3.000mA

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF max
- Rise and Fall Time 5.0ns max
- Duty Cycle 45/55%
- Start up Time: 10ms max.
1.1ms typ to 90% of final amplitude (Under ideal conditions @ 25°C)

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, $0.6\mu\text{A}$ typ @ 25°C

Environmental Parameters

- Impact: Weight of 10g dropped to centre of part from a height of 6mm
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs)
- Storage Temperature Range: -40 to 85°C

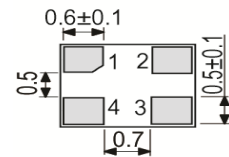
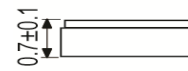
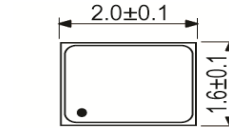
Compliance

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

Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 1,000
- Alternative packing option available

Outline (mm)

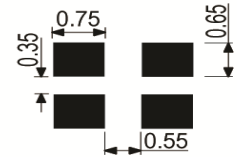


Underside View

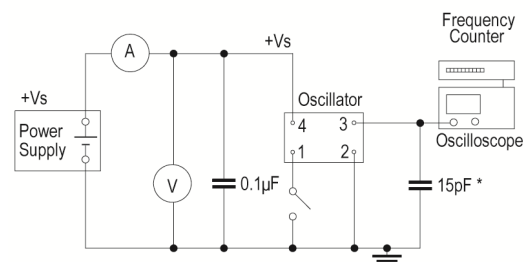
Pad Connections

- Standby Operation
- GND
- Output
- +Vs

Solder Pad Layout



Test Circuit



* Inclusive of jigging and equipment capacitance

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