


**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 12.2880MHz
- Frequency Stability  $\pm 25.00$ ppm
- Operating Temperature Range  $-20.00$  to  $70.00$ °C
- Ageing  $\pm 5$ ppm

**Electrical Parameters**

- Supply Voltage  $1.8V \pm 10\%$
- 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: 10µA max, 0.6µA typ @ 25°C

**Environmental Parameters**

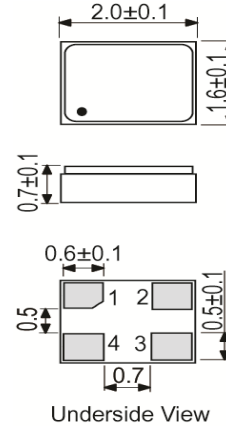
- Impact: Weight of 10g dropped to centre of part from a height of 6mm
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs)
- Storage Temperature Range:  $-40$  to  $85$ °C

**Compliance**

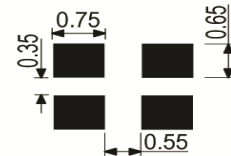
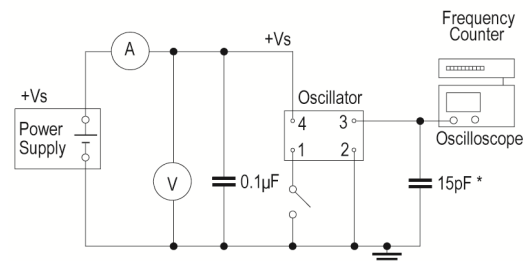
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

**Packaging Details**

- Pack Style: Cutt In tape, cut from a reel  
Pack Size: 100
- Alternative packing option available

**Outline (mm)**

**Pad Connections**

- Standby Operation
- GND
- Output
- +Vs

**Solder Pad Layout**

**Test Circuit**


\* Inclusive of jigging and equipment capacitance

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