

## Customer Part:



### Description

- Standard 2 x 1.6mm crystal oscillator in a hermetically sealed ceramic package with a seam sealed metal lid
- Model IQXO-541
- Model Issue number 3

### Frequency Parameters

- Frequency 12.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 5\text{ppm}$  max per year @  $25^\circ\text{C}$

### Electrical Parameters

- Supply Voltage  $2.5\text{V} \pm 10\%$
- Current Draw  $4.000\text{mA}$

### Output Details

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $5.0\text{ns}$  max
- Duty Cycle 45/55%

### 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 (pad 1 at logic '0')

### Output Levels

- Output High (VoH): 90% of  $V_s$  min
- Output Low (VoL): 10% of  $V_s$  max

### Environmental Parameters

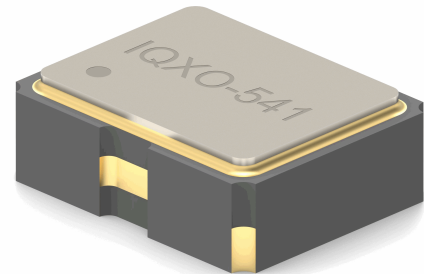
- Impact: Weight of 10g dropped to centre of part from a height of 6mm
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs)
- Storage Temperature Range:  $-40$  to  $85^\circ\text{C}$
- RoHS Terminations
- RoHS Reflow Temp  $250^\circ\text{C}$  max for 10s max

### Compliance

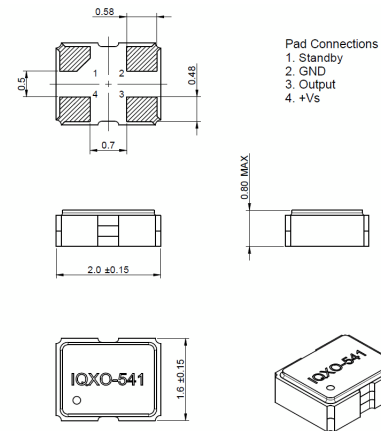
- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

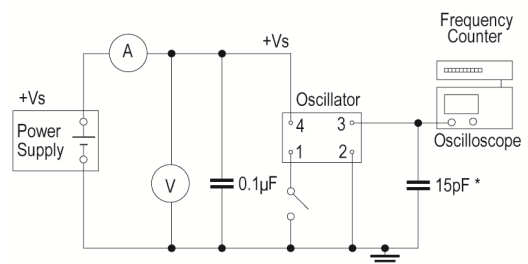
- Pack Style: Reel Tape & reel in accordance with EIA-481  
Standard Pack Quantity: 1,000
- Alternative packing option available



### Outline (mm)



### Test Circuit



\* Inclusive of jigging and equipment capacitance

### Sales Office Contact Details:

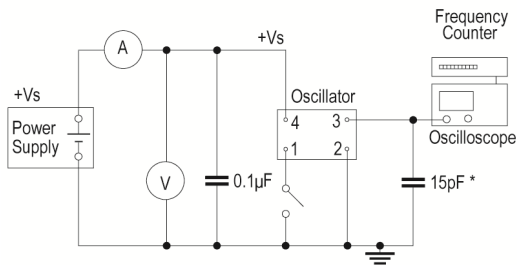
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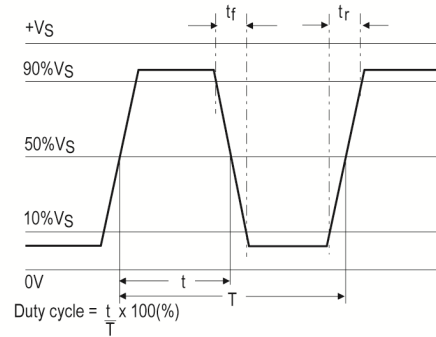
**Customer Part:**

**Test Circuit**



\* Inclusive of jigging and equipment capacitance

**Wave Form**



**Sales Office Contact Details:**

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