

ISSUE 2; July 2016

Description

- Standard 1.6 x 1.2mm crystal oscillator in a ceramic package with a seam sealed metal lid, hermetically sealed

Frequency Parameters

- Frequency 1.0MHz to 80.0MHz
- Frequency Stability $\pm 30.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing $\pm 5\text{ppm}$

Electrical Parameters

- Supply Voltage $1.8\text{V} \pm 10\%$
- Standby Current: $10\mu\text{A}$ max

Operating Temperature Ranges

- 20 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF max

Output Control

- 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

Environmental Parameters

- 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)
- Storage Temperature Range: -40 to 85°C

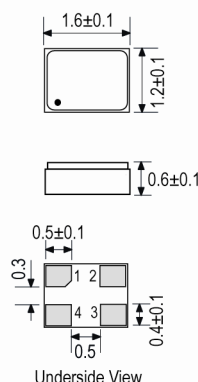
Ordering Information

- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
- (*minimum required)
- Example
- 10.0MHz IQXO-642
- CMOS $\pm 50\text{ppm}$ -20 to 70°C 1.8V

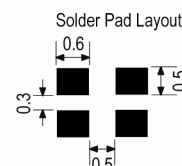
Compliance

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

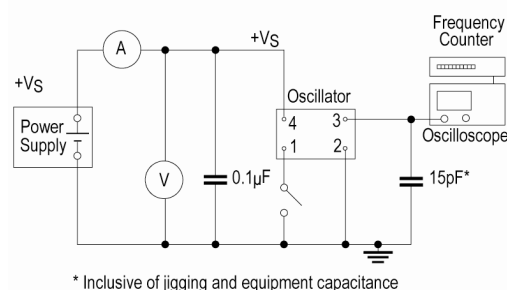
Outline (mm)



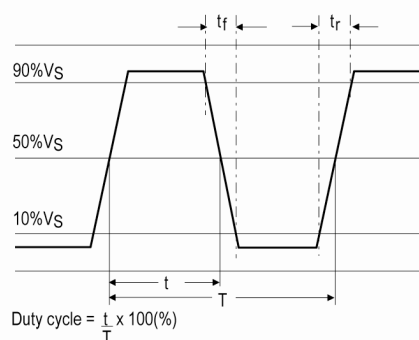
Pad Connections
 1. Standby Operation
 2. GND & Lid
 3. Output
 4. $+V_S$



Test Circuit



Wave Form



Sales Office Contact Details:

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Packaging Details

- Pack Style: Cutt Cut tape
Pack Size: 1
- Pack Style: Bulk Loose in bulk pack
Pack Size: 100
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 3,000

Electrical Specification - maximum limiting values 1.8V $\pm$ 10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	20.0MHz	-20 to 70	$\pm$ 30.0	3	5	45/55%
		-40 to 85	$\pm$ 50.0	3	5	45/55%
20.000001MHz	40.0MHz	-20 to 70	$\pm$ 30.0	4	5	45/55%
		-40 to 85	$\pm$ 50.0	4	5	45/55%
40.000001MHz	60.0MHz	-20 to 70	$\pm$ 30.0	5	5	45/55%
		-40 to 85	$\pm$ 50.0	5	5	45/55%
60.000001MHz	80.0MHz	-20 to 70	$\pm$ 30.0	7	5	45/55%
		-40 to 85	$\pm$ 50.0	7	5	45/55%

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