

ISSUE 1; April 2016

Description

- Intended for applications requiring shock survivability to 10,000G (and higher), the surface-mount CXOXHG oscillator is a high-shock version of the CXOX oscillator. This oscillator consist of a CMOS compatible hybrid circuit and a state-of-the-art fundamental-mode crystal.
- SM1 Gold Plated (RoHS)
- SM5 Solder Dipped (RoHS)
- Please note that all data is only valid at 25°C unless otherwise stated.

Frequency Parameters

- Frequency: 1.0MHz to 160.0MHz
- Frequency Tolerance: $\pm 100.00\text{ppm}$
- Tolerance Condition: @ 25°C
- Frequency Stability: $\pm 50.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max in 1st year

Electrical Parameters

- Supply Voltage: 3.3V $\pm 10\%$
- Supply Current Typical:
 - 3mA @ 24 MHz
 - 5mA @ 32 MHz
 - 6mA @ 50 MHz
 - 23mA @ 130MHz
- Supply Voltage (absolute maximum rating): -0.5V to 7V

Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C
- 55 to 125°C

Output Details

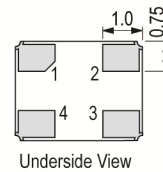
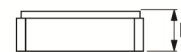
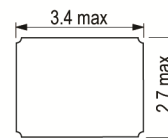
- Output Compatability: CMOS
- Drive Capability: 15pF
- Start Up Time: 5ms max

Environmental Parameters

- Shock: 10000G, 0.3ms, 1/2 sine
- Vibration: MIL-STD-202G, Method 204D, Condition D: 20G rms, 10Hz-2000Hz swept sine
- Storage Temperature Range: -55 to 125°C

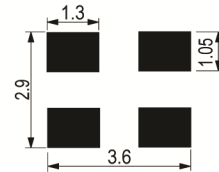


Outline (mm) SM1 = Gold Plated (RoHS)



Pad Connections	Height (H) =
1. NC/EN	SM1 1.09 max
2. GND	SM3 1.21 max
3. Output	SM5 1.21 max
4. +Vs	

Solder Pad Layout



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Manufacturing Details

- Features:
 - High shock resistance
 - Low acceleration sensitivity
 - Hermetically sealed ceramic package
 - Low power consumption
 - Low EMI emission
 - Optional Output Enable/Disable with Tri-State
 - Full military testing available
- Applications:
 - Military & Aerospace -
 - Smart munitions
 - Communications
 - Navigation
 - GPS
 - Industrial, Computer & Communications -
 - Miniature clock oscillator
 - Handheld instrumentation
 - PDA
 - Transponder/Animal migration
 - Medical -
 - Test & Diagnostic equipment
 - Handheld devices
- Solder Process Temperature: 260°C max for 20sec max

Ordering Information

- Frequency*
- Model*
- Termination Variant*
- Output
- Frequency Tolerance (@ 25°C)*
- Frequency Stability*
- Operating Temperature Range*
- Pad 1 Function*
- (*minimum required)
- Termination Variants:
 - SM1 = Gold Plated / SM5 = Solder Dipped
 - (Note: Non-RoHS compliant terminations also available - SM3 = Solder Dipped)
- Example
 - 40.0MHz CXOXHG 3.3V SM1
 - CMOS ±100ppm ±100ppm -40 to 85C NC

Compliance

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

Packaging Details

- | | |
|--------------------|--|
| ■ Pack Style: Tray | Supplied on a tray |
| ■ Pack Size: 1 | |
| ■ Pack Style: Reel | Tape & reel in accordance with EIA-481-D |
| ■ Pack Size: 1,000 | |

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Electrical Specification - maximum limiting values 3.3V \pm 10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	160.0MHz	-10 to 70	\pm 50.0	-	6	40/60%
		-40 to 85	\pm 100.0	-	6	40/60%
		-55 to 125	\pm 100.0	-	6	40/60%

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