



ISSUE 1; September 2014 - RoHS 2011/65/EU

Description

- A high frequency, low profile, miniature surface-mount oscillator consisting of a CMOS compatible hybrid circuit and a state-of-the-art fundamental-mode crystal.
- SM1 Gold Plated (RoHS)
- SM5 Solder Dipped (RoHS)

Frequency Parameters

- Frequency 1.0MHz to 160.0MHz
- Frequency Tolerance ±100.00ppm
- Tolerance Condition @ 25°C
- Frequency Stability ±50.00ppm to ±100.00ppm
- Ageing ±5ppm max in 1st year

Electrical Parameters

- Supply Voltage 3.3V ±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

Output Control

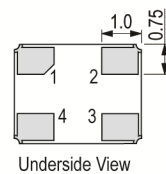
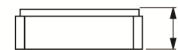
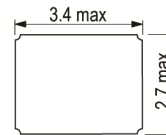
- Enable/Disable (EN):
Logic 1 to pin 1, output enabled
Logic 0 to pin 1, output disabled, output goes to high impedance state, current consumption low, internal oscillator stops.
- No Connection (NC):
Pad 1 not connected internally

Environmental Parameters

- Shock: 5000G, 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

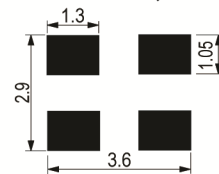


Outline (mm)



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:
 - 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 CXOX 3.3V SM1
CMOS ±100ppm ±100ppm -40 to 85C NC

Compliance

- RoHS Status 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 ±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	±50.0	-	6	40/60
		-40 to 85	±100.0	-	6	40/60
		-55 to 125	±100.0	-	6	40/60

*This document was correct at the time of printing; please contact your local sales office for the latest version.
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