



M1002S362 HC-49U Crystal Resonator

FEATURES

Resistance Weld (HC49/U)
AT-Cut Fundamental
RoHS compliant.
Rugged Design to support harsh environments

APPLICATIONS

Avionics and Aerospace
Communication and Navigation
Military Radios
Instrumentation and Industrial
Test and Measurement Equipment

ELECTRICAL SPECIFICATIONS

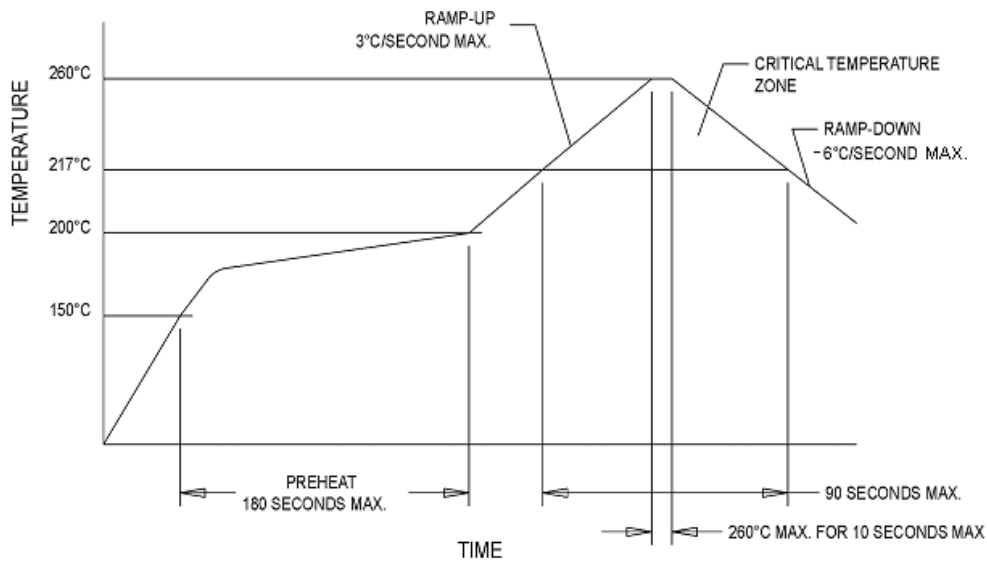
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Mode of Oscillation		Fundamental (AT-cut)				
Frequency Range	F ₀		8.760000		MHz	
Frequency Tolerance	F/F	-50		+50	ppm	@ +25°C
Frequency Stability	$\Delta F/F$	-50		+50	ppm	Over the operating temperature range
Aging		-5		+5	ppm	Per year
Load Capacitance			32		pF	
Shunt Capacitance				8.0	pF	
ESR				30	Ω	Over the operating temperature range
Insulation Resistance	I _R	500			M Ω	100 VDC
Drive Level	DL	50	200	2000	μ W	

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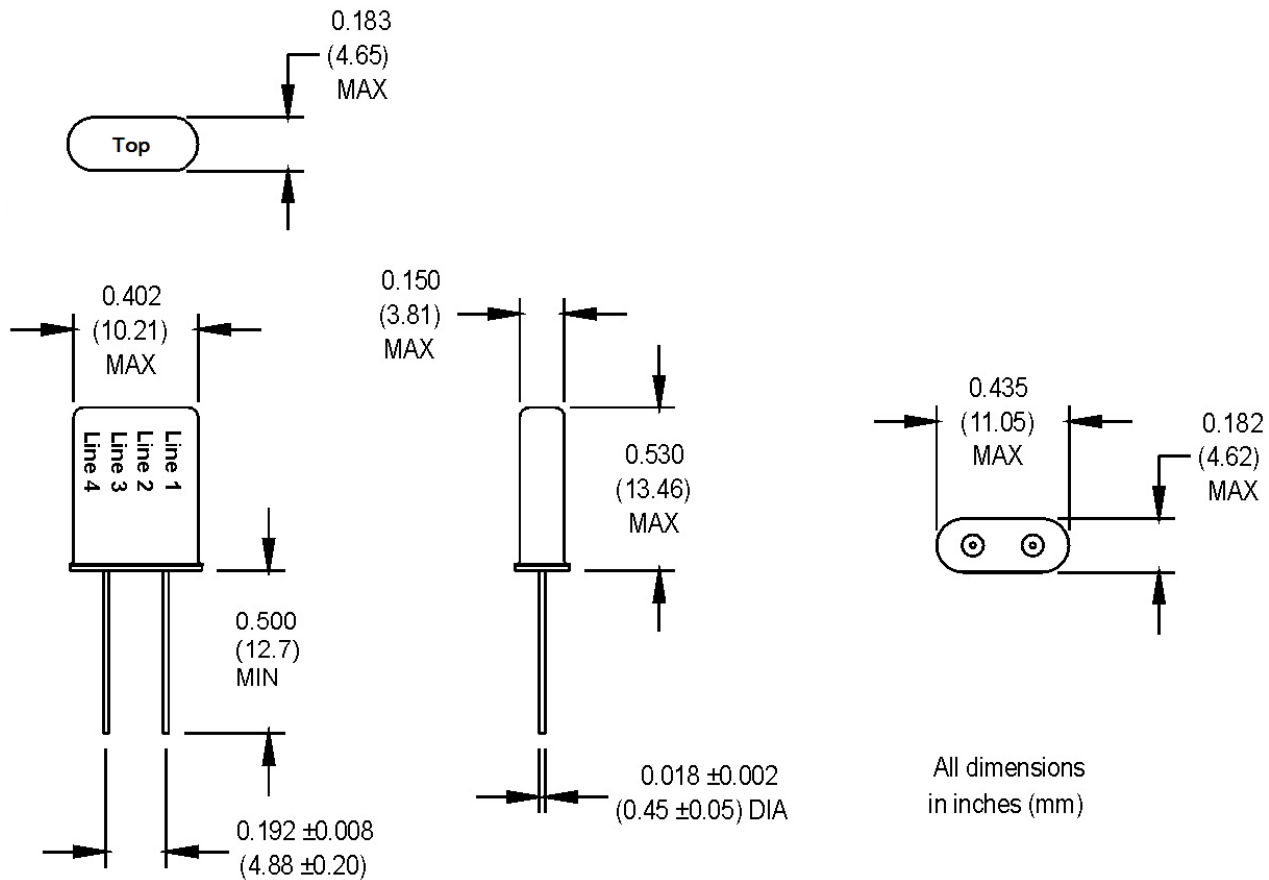
ENVIRONMENTAL CONDITIONS

Operating Temperature	T _A	-20		+85	°C	
Storage Temperature	T _S	-55		+125	°C	
Mechanical Shock	6 tests, 3 planes, both directions. 6.0g's acceleration for 11ms + 2ms. Part must meet specification at conclusion of test.					
Mechanical Vibration	2 hours in each orthogonal plane, sweep period to be 1 to 5 minutes as follows: 1) 0.2 inch double amplitude, 5 Hz to 17 Hz, 3.0g's maximum. 2) 3.0g's, 17 Hz to 55 Hz 3) 2.0g's, 55 Hz to 2000 Hz Part must meet specification during and at end of test.					
Humidity	Per D0-160A: 2 cycles of 8 hours at +50°C and 95% humidity, followed by 16 hours at +38°C or less at not less than 85% humidity					
Altitude	From 15,000 feet below sea level to 50,000 feet above sea level at +25°C, part must meet specification. De-pressurization from +20,000 feet above sea level to +40,000 feet above sea level within 15 seconds. Result to be non-destructive.					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium) See below.					
Solderability	Per MIL-STD-202, Method 208C					
Package	HC-49/U resistance weld - RoHS compliant.					
Maximum Wave Soldering Conditions	+260 °C for 10 seconds. Wave soldering process.					

LEAD FREE SOLDER PROFILE



MECHANICAL AND PIN OUT INFORMATION



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