



# M1002S358 HC-49U Crystal Resonator

## FEATURES

Resistance Weld (HC49U)  
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

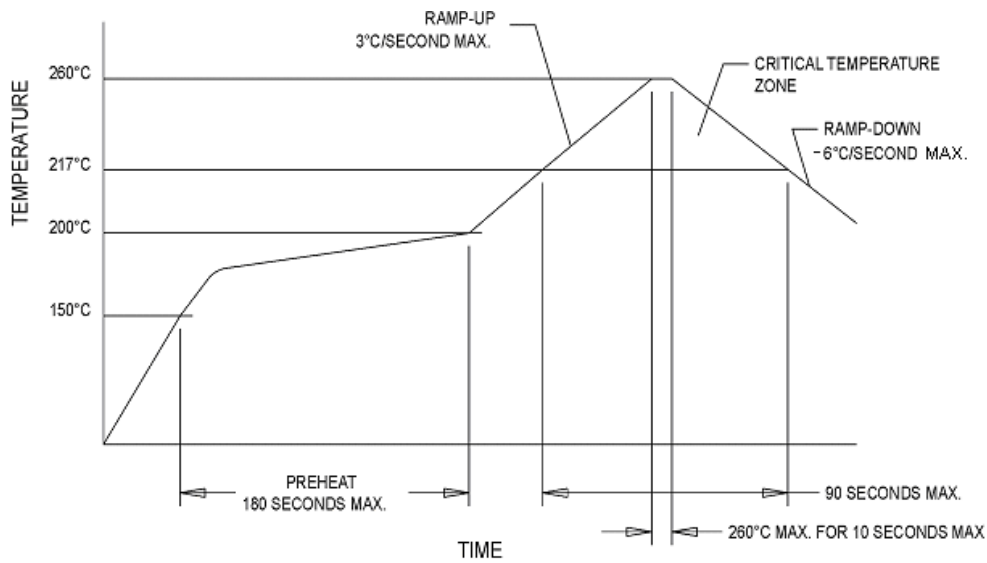
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Mode of Oscillation		Fundamental (AT-cut)				
Frequency Range	F <sub>0</sub>		2.048000		MHz	
Frequency Tolerance	F/F	-30		+30	ppm	@ +25°C
Frequency Stability	ΔF/F	-50		+50	ppm	Over the operating temperature range
Aging		-5		+5	ppm	
Load Capacitance			18		pF	
Shunt Capacitance				7	pF	
ESR				600	Ω	@ +25°C
Insulation Resistance	I <sub>R</sub>	500			MΩ	100 VDC
Drive Level	DL	50	100	1000	μW	

## ENVIRONMENTAL CONDITIONS

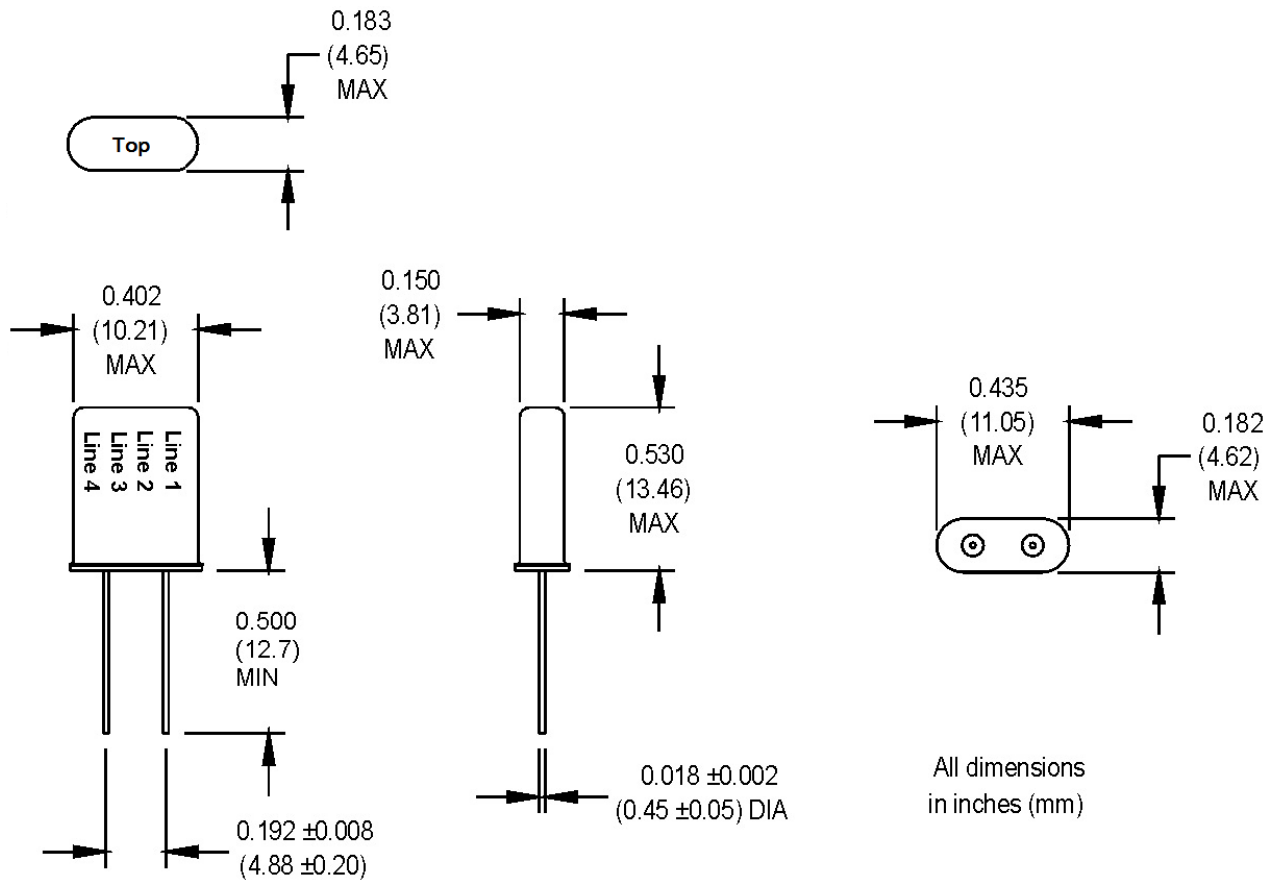
Operating Temperature	T <sub>A</sub>	-20		+70	°C	
Storage Temperature	T <sub>S</sub>	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
Mechanical Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Hermeticity	MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm cc/sec min)					
Solderability	Per MIL-STD-202, Method 208C					
Package	HC-49U resistance weld RoHS compliant					
Maximum Wave Soldering Conditions	+260°C for 10 seconds					

07/07/21 Rev. A

**LEAD FREE SOLDER PROFILE**



**MECHANICAL AND PIN OUT INFORMATION**



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