

SPECIFICATION FOR HC-49U/S CRYSTAL MtronPTI P/N M1004S156

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Mode of Oscillation		Fundamental (AT-Cut)				
Frequency	F ₀		24.000000		MHz	
Frequency Tolerance	F/F	-50		+50	ppm	@ +25 °C
Frequency Stability	ΔF/F	-50		+50	ppm	Over operating temperature range referenced to frequency @ +25 °C
Operating Temperature	T _A	-40		+70	°C	
Storage Temperature	T _S	-55		+125	°C	
Aging				±5	ppm	Per year @ +25 °C
Load Capacitance	C _L		18		pF	
Shunt Capacitance	C ₀			5	pF	
ESR				48	Ω	
Insulation Resistance		500			MΩ	
Drive Level	D _L	25	100	500	μW	100 V _{DC}

Environmental & Mechanical Requirements:

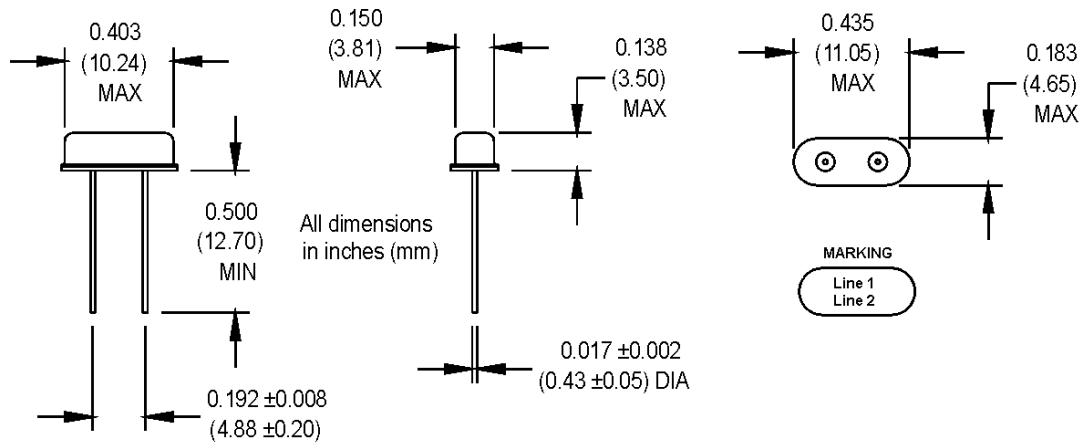
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g, 6 ms duration, ½ sine wave)
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g from 10 Hz to 2000 Hz)
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55 °C to +125 °C, 15 min. dwell, 10 cycles)
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)
Gross Leak	Per MIL-STD-202, Method 112 (30 second Immersion)
Fine Leak	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)
Resistance to Solvents	Per MIL-STD-883, Method 2015
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	HC-49U/S resistance weld. RoHS 6 compliant. (ATS-49-R Series)

SPECIFICATION FOR HC-49U/S CRYSTAL MtronPTI P/N M1004S156

Dimensions and Part Marking:

Part Marking	
Line 1	MFFFFVXY
Line 2	M1004S156

Legend	
M	MtronPTI
F	Frequency
V	Vendor code
X	Month
Y	Year



Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
07/09/13	0	LEO	Original release.