

SPECIFICATION FOR RoHS 6 COMPLIANT HC-49U/S-SMD CRYSTAL

MtronPTI P/N: M1001S600

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Mode of Oscillation		Fundamental (AT-Cut)				
Frequency	F ₀		16.777216		MHz	Nominal Center Frequency
Frequency Tolerance	F/F	-50		+50	ppm	@ +25°C
Frequency Stability	ΔF/F	-50		+50	ppm	Over operating temp range
Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _s	-55		+125	°C	
Aging		-5		+5	ppm	1 st Year
Load Capacitance	C _L		15		pF	Parallel Resonant
Shunt Capacitance	C ₀			7	pF	
ESR			20	40	Ω	
Drive Level Sensitivity	DLD2			10	Ω	5 points min. in each of the following ranges: 10nW to 1 μW and 1 μW to 100 μW
	RLD2			40	Ω	
	FDDL	-15		+15	ppm	
Drive Level	D _L		100	200	μW	
Turnover Temperature		20	25	30	°C	AT cut turnover temperature
Motional Capacitance	C1		9		fF	
Motional Inductance	L1		10		mH	
Trim Sensitivity		12	17.5	20	ppm/pF	
Insulation Resistance		500			MΩ	Tested at 100VDC

Environmental & Mechanical Requirements:

Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)
Hermeticity	1 X 10 ⁻⁸ atm cc/sec minimum
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	2-pad HC-49U/S-SMD, 4.3mm height, resistance weld, ATSM-49 type
RoHS	Full RoHS Compliance

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Dimensions, Marking, and Pin Out Information:

Part Marking	
Line 1	M1677VXY
Line 2	M1001S600

Legend	
M	MtronPTI
V	Internal code
X	Month
Y	Year

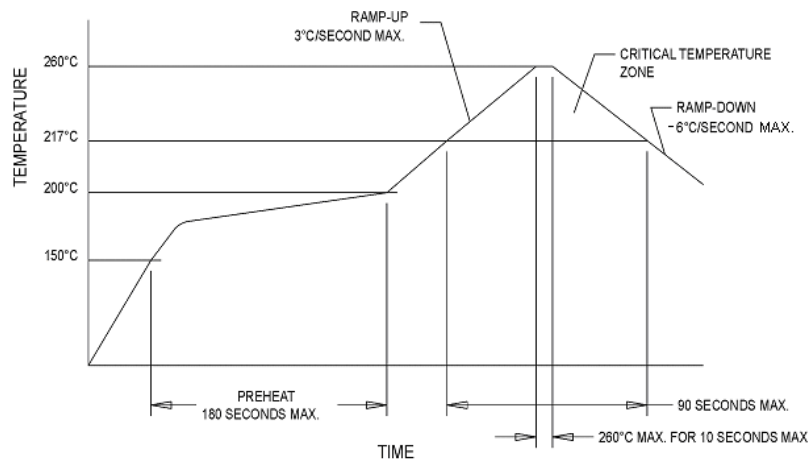
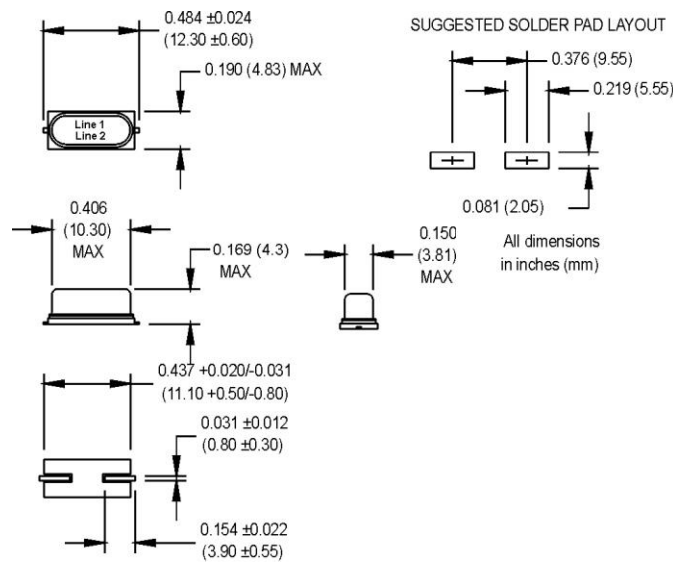


Figure 1

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
12/18/17	0	DCO	Original release