MtronPTI ...when timing matters

1703 E. Highway 50 Yankton, SD 57078 USA
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SPECIFICATION FOR RoHS 6 COMPLIANT SMD CRYSTAL
MtronPTI P/N M1252S049

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Mode of Oscillation		Fundamental (AT-Cut)				
Frequency	F_O		16.000000		MHz	
Frequency Tolerance	F/F	-15		+15	ppm	@ 25°C
Frequency Stability	ΔF/F	-25		+25	ppm	Deviation over operating temperature range, ref. to +25 °C
Aging	ΔF/F	-25		+25	ppm	15 years, referenced to frequency at time of shipment
Mechanical Shock, Vibration, Reflow Soldering	ΔF/F	-10		+10	ppm	Referenced to frequency at time of shipment
Operating Temperature	T_A	-40		+85	°C	
Storage Temperature	T_S	-55		+125	°C	
Load Capacitance	C_L		8		pF	
Shunt Capacitance	C_O			3	pF	
ESR				80	Ω	
Drive Level	D_L		10	200	µW	
Insulation Resistance		500			MΩ	Tested @ 100V DC

Environmental Conditions:

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	Per MIL-STD-202, Method 112 (1 x 10^{-8} atm cc/s of Helium)
Gross Leak	Per MIL-STD-202, Method 112 (30 sec. 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	2.5 x 2.0 mm ceramic leadless 4 pad

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Mechanical, Marking and Layout Information:

Part Marking	
Line 1	16M000
Line 2	M Y WW V

Legend	
M	MtronPTI
Y	Year
WW	Week
V	Vendor

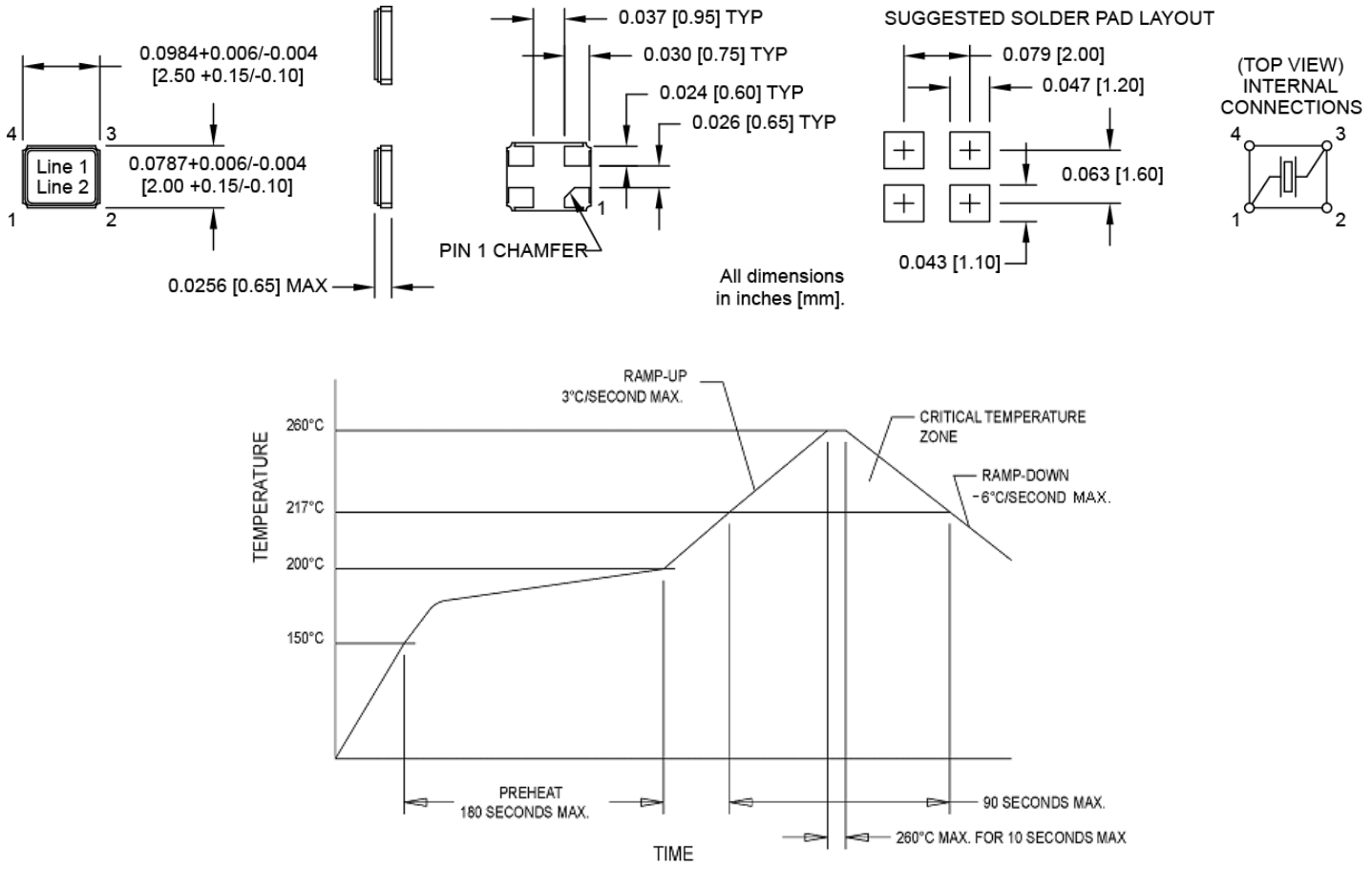

Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
03/06/17	0	MM	Original release

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