

**SPECIFICATION FOR RoHS 6 COMPLIANT SMD CRYSTAL**  
**MtronPTI P/N M1252S043**

**Electrical Specifications:**

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Mode of Oscillation		Fundamental (AT-Cut)				
Frequency	F <sub>0</sub>		32.000000		MHz	
Frequency Tolerance	ΔF/F	-10		+10	ppm	@ 25°C
Frequency Stability	ΔF/F	-20		+20	ppm	Referenced to frequency at +25°C
Aging	ΔF/F	-3		+3	ppm	
Operating Temperature	T <sub>A</sub>	-40		+85	°C	
Storage Temperature	T <sub>S</sub>	-55		+125	°C	
Load Capacitance	C <sub>L</sub>		10		pF	
Shunt Capacitance	C <sub>0</sub>			3	pF	
ESR				50	Ω	
Drive Level	D <sub>L</sub>	10	50	200	μW	
Insulation Resistance		500			MΩ	Tested @ 100V DC

**Environmental Conditions:**

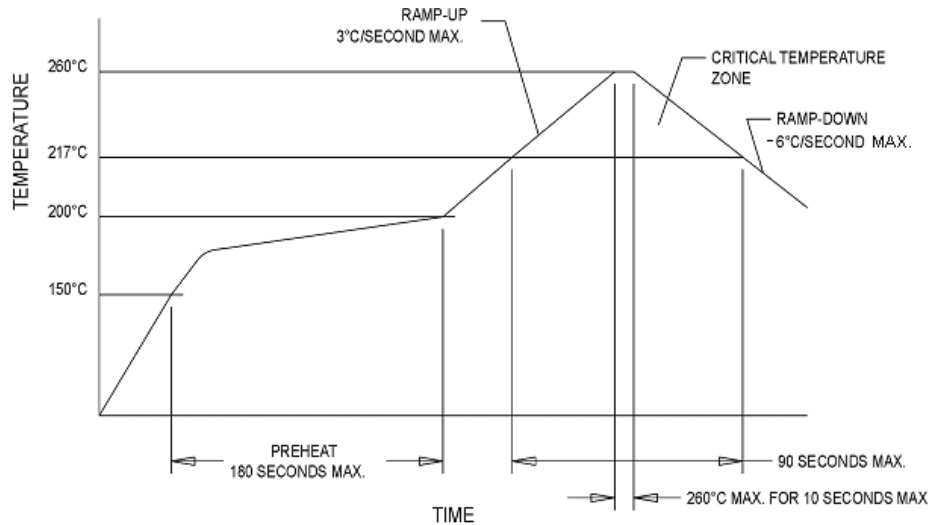
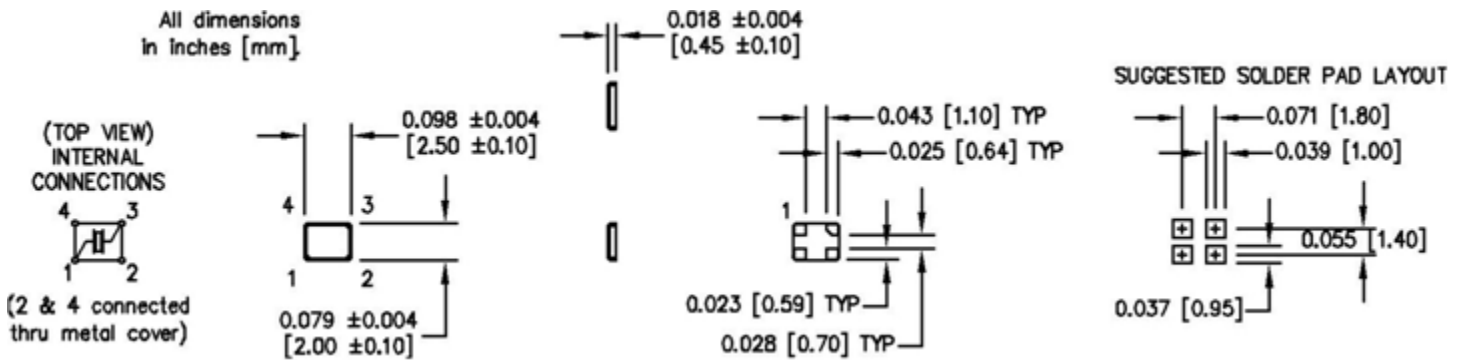
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> 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 <sup>-8</sup> 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	32M000
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
10/29/15	0	DCO	Original release