

## SPECIFICATION FOR RoHS 6 COMPLIANT SMT CRYSTAL

### MtronPTI P/N: M1325S139

#### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Mode of Oscillation		Fundamental (AT-Cut)				
Frequency	F <sub>0</sub>		25.000000		MHz	
Frequency Tolerance	dF/F	-15		+15	ppm	@ 25°C
Frequency Stability	dF/F	-20		+20	ppm	Over operating temperature range
Aging	dF/F	-3		+3	ppm	First year aging
	dF/F	-15		+15	ppm	20 years aging (incl. 1 <sup>st</sup> yr.)
Load Capacitance	C <sub>L</sub>		10		pF	
Motional Capacitance	C <sub>1</sub>	6			fF	
ESR				30	Ω	
Drive Level	D <sub>L</sub>	10	100	300	μW	
Operating Temperature	TA	-40		+85	°C	
Pull Specifications				-75	ppm	CL 10 pF => 14.8 pF
		+75			ppm	CL 10 pF => 7.5 pF

#### Environmental Conditions:

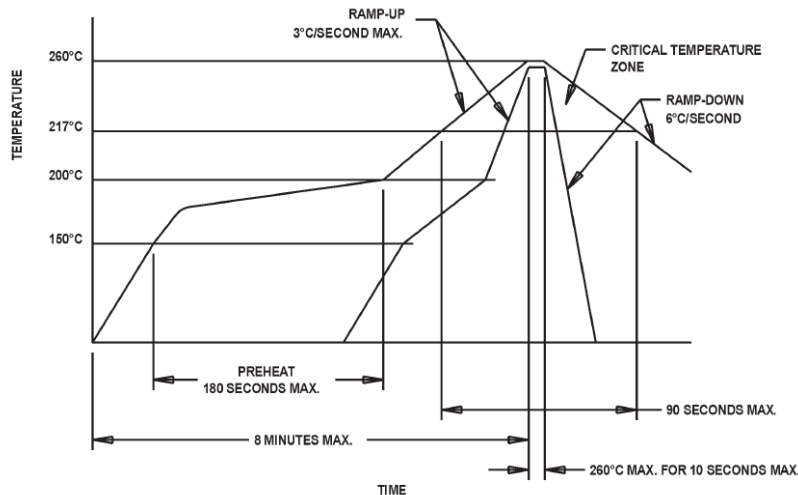
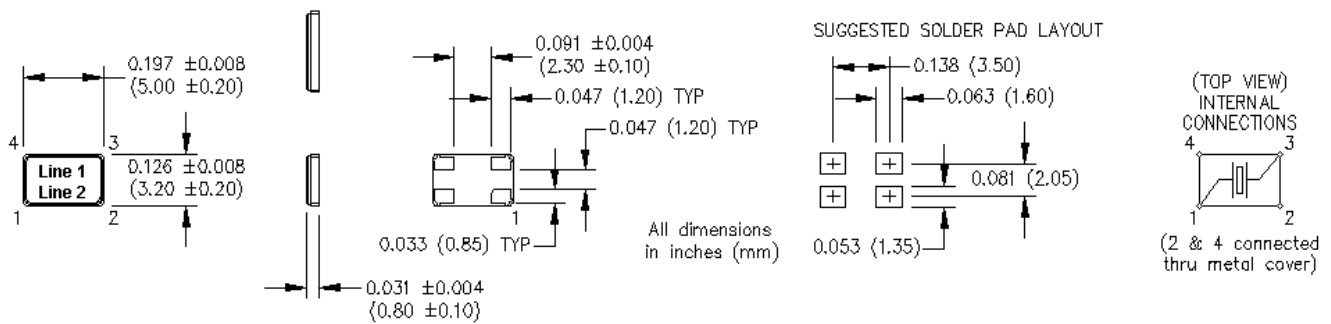
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sine wave)
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10 Hz to 2000 Hz)
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm cc/s of Helium)
Storage Temperature	-55°C to +125°C
Solderability	Per EIAJ-STD-002
Package	4-pad 3.2 mm x 5.0 mm x 0.8 mm leadless ceramic. RoHS compliant.
Max. Soldering Conditions	See Figure 1

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**Mechanical and Marking Information:**

Part Marking	
Line 1	25M000 (Frequency in MHz)
Line 2	M R y ww v

Legend	
M	MtronPTI
R	M1325 Family
y	Year of Mfgr.
ww	Week of Mfgr.
v	Factory Code



**Figure 1**

**Data Sheet Revision Table:**

Date	Rev.	Author	Details of Revision
12/20/12	0	MM	Original Release.
1/17/13	A	MM	Added minimum motional capacitance.
3/1/13	B	MM	Removed Co specification.