

SPECIFICATION FOR RoHS 6 COMPLIANT SMT VCTCXO MtronPTI P/N M6054S004

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency	F		40.000000		MHz	
Frequency Tolerance		-1.5		+1.5	ppm	@ +25 °C
Frequency Stability	$\Delta F/F$	-6.0		+6.0	ppm	Includes initial tolerance, deviation over operating temperature, variations due to reflow soldering and 10 yr. aging measured at +40°C.
Frequency Vs. Supply		-0.2		+0.2	ppm	For $\pm 5\%$ voltage change
Frequency Vs. Load		-0.2		+0.2	ppm	For $\pm 5\%$ load change
Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _{STG}	-40		+90	°C	
Aging		-1		+1	ppm	Per year @ +40 °C
Operating Voltage	V _{DD}	3.135	3.3	3.465	V	
Operating Current	I _{DD}			2.5	mA	
Output Type		Clipped Sine Wave				
Output Load		10 K 10 pF				
Output Level		0.80		1.30	V _{p-p}	
Control Voltage	V _C	0.30	1.65	3.30		
Tuning Range		± 12.0			ppm	referenced to 40.000000 MHz
Phase Noise			-110		dBc/Hz	@ 100 Hz
				-145	dBc/Hz	@ 100 kHz

Environmental Conditions:

Mechanical Shock	Per MIL-STD-202, Method 213, (2000 g, 0.3 ms duration, ½ sine wave)
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g from 20Hz to 2000 Hz)
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package	4-pad 3.2 mm x 5.0 mm x 1.5 mm leadless ceramic. RoHS compliant.

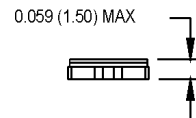
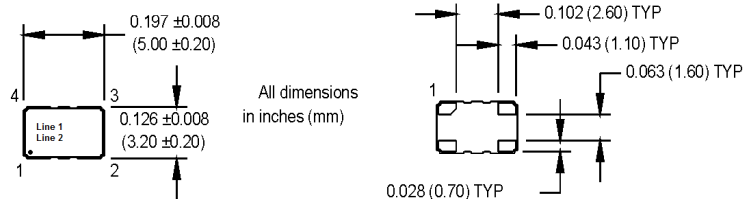
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Dimensions, Marking, and Pin Out Information:

Part Marking	
Line 1	40M0
Line 2	M yw

Legend	
y	Year
w	Work week

Pad	Function
1	Control Voltage
2	Ground
3	Output
4	+V _{DD}



SUGGESTED SOLDER PAD LAYOUT

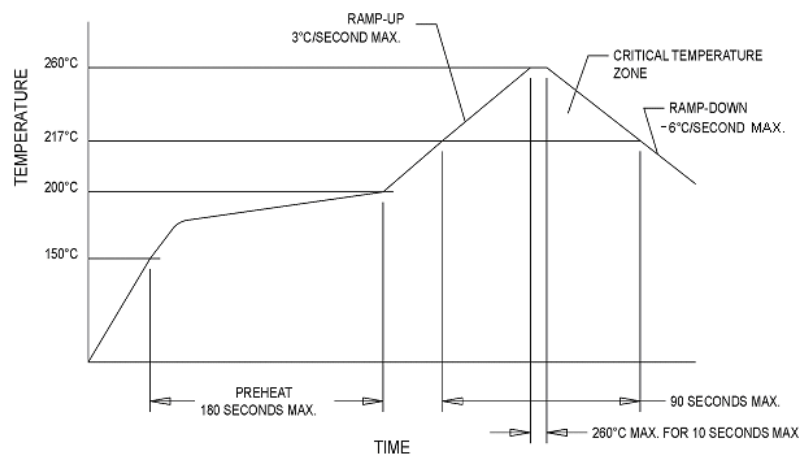
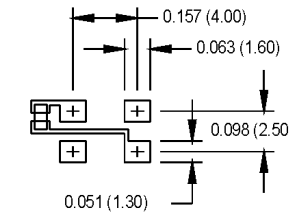


Figure 1

DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
2/28/13	0	MM	Original release.
4/30/13	A	MM	Updated phase noise specification.