

SPECIFICATION FOR RoHS 6 COMPLIANT SMT VCTCXO MtronPTI P/N M6054S005

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	$\Delta F/F$	-0.5		+0.5	ppm	Over operating temperature relative to +25°C ($F_{Max} - F_{Min}$)/2
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	-30		+85	°C	
Storage Temperature	T _{STG}	-55		+105	°C	
Aging		-1		+1	ppm	Per year @ +40 °C
Operating Voltage	V _{DD}	2.7	2.8	2.9	V	
Operating Current	I _{DD}			5.0	mA	
Output Type		HCMOS				
Output Load		15			pF	
Logic "0" Level	V _{OL}			10% V _{DD}	V	
Logic "1" Level	V _{OH}	90% V _{DD}			V	
Symmetry (Duty Cycle)		45		55	%	measured @ 50% V _{DD}
Control Voltage	V _C	0.50	1.5	2.5		
Tuning Range		± 5.0			ppm	referenced to 40.000000 MHz
Phase Noise			-85		dBc/Hz	@ 10 Hz
			-110		dBc/Hz	@ 100 Hz
			-131		dBc/Hz	@ 1 kHz
			-149		dBc/Hz	@ 10 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	4000 XXX
Line 2	*M Y WW K

Legend	
*	Pin 1 Indicator
XXX	Crystal Unit Date Code
y	Year
ww	Work week
K	Factory Code

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

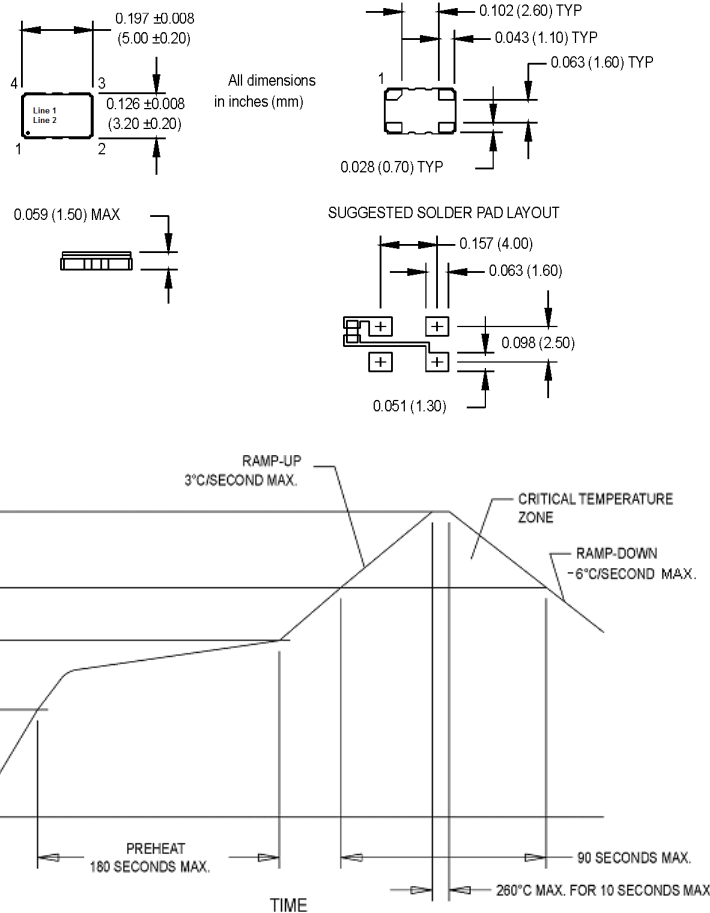


Figure 1

DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
3/20/13	0	MM	Original release.
5/30/13	A	MM	Changed supply voltage range, operating current, phase noise and marking specifications.