MtronPTI ...when timing matters

1703 E. Highway 50 Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
Website: www.mtronpti.com

SPECIFICATION FOR RoHS 6 COMPLIANT SMT VCTCXO
MtronPTI P/N M6054S006

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency	F		50.000000		MHz	
Frequency Tolerance		-1.5		+1.5	ppm	@ +25 °C before or after two reflow profiles, Vc = 1.5
Frequency Stability	ΔF/F	-2.0		+2.0	ppm	Deviation over operating temperature.
Frequency Vs. Supply		-0.2		+0.2	ppm	For ±5% voltage change
Frequency Vs. Load		-0.2		+0.2	ppm	For ±5% load change
Operating Temperature	T_A	-10		+85	°C	
Storage Temperature	T_{STG}	-40		+90	°C	
Aging		-1		+1	ppm	Per year @ +40 °C
Operating Voltage	V_{DD}	2.85	3.00	3.15	V	
Operating Current	I_{DD}			6.0	mA	
Output Type			HCMOS			
Output Load			15		pF	
Logic “0” Level	VOL			10% Vdd	V	
Logic “1” Level	VOH	90% Vdd			V	
Symmetry (Duty Cycle)		45		55	%	measured @ 50% Vdd
Control Voltage	V_C	0.30	1.5	2.7		
Tuning Range		±10.0			ppm	referenced to 50.000000 MHz
Phase Noise			-75		dBc/Hz	@ 10 Hz
			-130		dBc/Hz	@ 1 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.

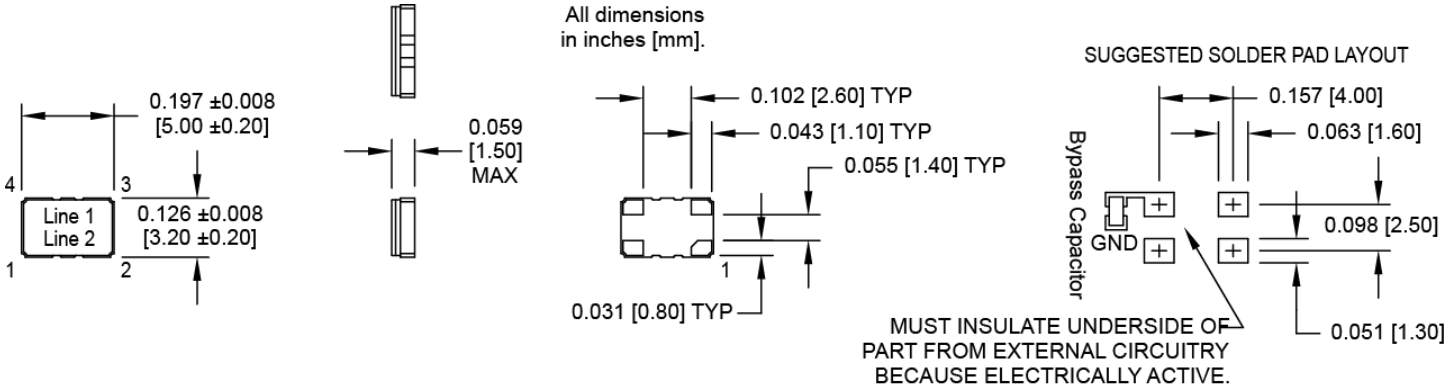
1703 E. Highway 50 Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
Website: www.mtronpti.com

SPECIFICATION FOR RoHS 6 COMPLIANT SMT VCTCXO
MtronPTI P/N M6054S006

Dimensions, Marking, and Pin Out Information:

Part Marking	
Line 1	5000 yww
Line 2	M yww K

Pad	Function
1	Control Voltage
2	Ground
3	Output
4	$+V_{DD}$



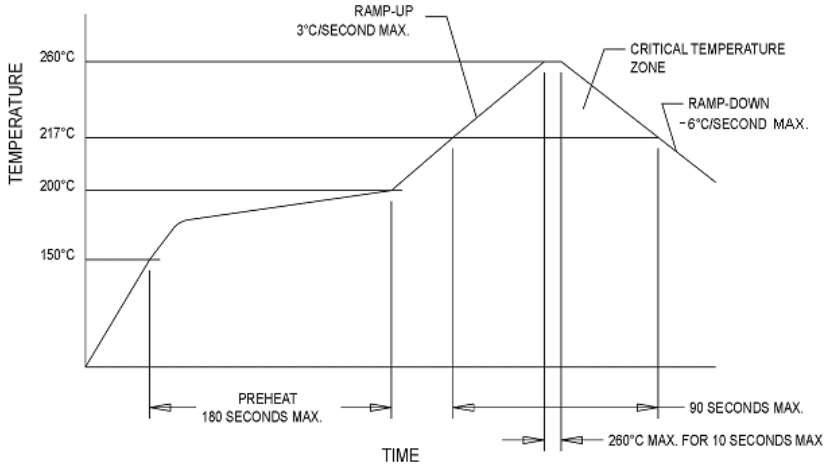


Figure 1

DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
3/27/13	0	MM	Original release.
8/7/13	A	MM	Changes to storage temperature, supply current, package dimensions & part marking.