

SPECIFICATION FOR SMT VCTCXO

MtronPTI P/N M6161S026

Electrical Specifications:

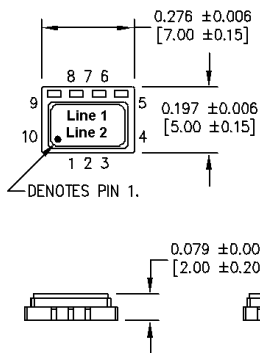
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency	F_O		50.000000		MHz	
Frequency Stability	$\Delta F/F$	-1.0		+1.0	ppm	$([F_{\max} - F_{\min}]/2)$
Frequency Vs. Load			± 0.02	± 0.1	ppm	For 5% load variation.
Frequency Vs. Supply			± 0.02	± 0.1	ppm	For 5% supply voltage variation.
Frequency Vs. Aging		-2.0		+2.0	ppm	First year.
		-5.0		+5.0	ppm	For 10 yrs. (Includes first year)
Operating Temperature	T_A	-20		+70	°C	
Storage Temperature	T_S	-55		+125	°C	
Operating Voltage	V_S	3.135	3.3	3.465	V	
Operating Current	I_S			5	mA	
Output Type		Clipped Sine Wave				
Output Load		10 k Ω 10 pF				$\pm 5\%$
Output Level	V_{OUT}	0.8			V_{pk-pk}	
Control Voltage Range	V_C	0.3	1.65	3.0	V	Pad 10
Tuning Range		± 10			ppm	Pad 10. Positive slope.
Linearity				5	%	
Input Impedance	Z_{IN}	100			k Ω	Pad 10
Tristate Function		70			% V_S	Pad 8: Output enabled
				30	% V_S	Pad 8: Output to high-Z
Phase Noise				-73	dBc/Hz	@ 10 Hz
				-101	dBc/Hz	@ 100 Hz
				-128	dBc/Hz	@ 1 kHz
				-145	dBc/Hz	@ 10 kHz
				-153	dBc/Hz	@ 100 kHz
				-155	dBc/Hz	@ 1 MHz
				-158	dBc/Hz	@ 10 MHz

Environmental Conditions:

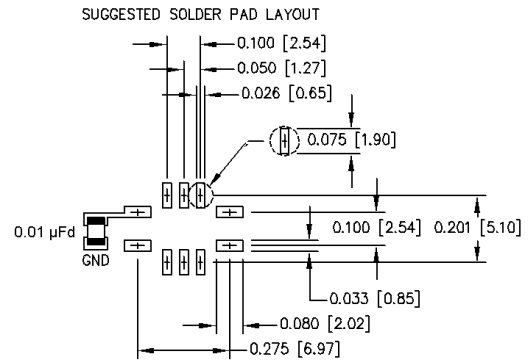
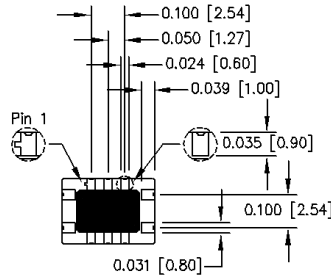
Shock	Per MIL-STD-202, Method 213, Condition C (100 g, 6 ms duration, ½ sine wave)
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g from 10 Hz to 2000 Hz)
Hermeticity	Per MIL-STD-202, Method 112 (1×10^{-8} atm cc/s of Helium) (Crystal Only)
Storage Temperature	-55 °C to +125 °C
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	5.0 x 7.0 x 2.0 mm, 10-pad Ceramic Leadless Chip Carrier

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Dimensions, Marking, and Pin Out Information:



All dimensions
in inches [mm]



Pad	Function
1	N/C
2	N/C
3	N/C
4	Ground
5	Output
6	N/C
7	N/C
8	Tristate
9	Supply Voltage (+V _s)
10	Control Voltage

Part Marking	
Line 1	M61 ym
Line 2	50M000

Legend	
y	Year
m	Month

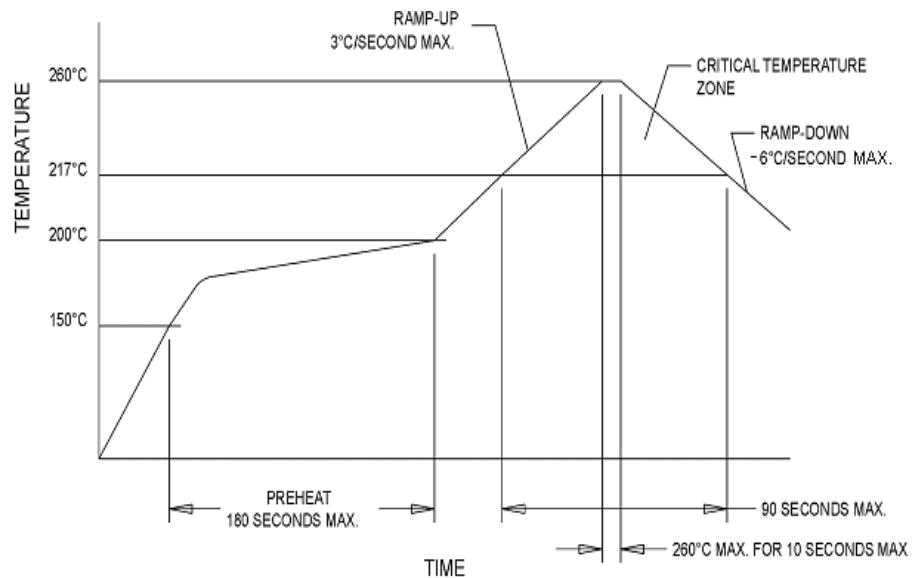


Figure 1

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
06/19/13	0	TOY	Original release.
10/11/13	A	LEO	Updated line drawing.