

SPECIFICATION FOR RoHS 6 COMPLIANT SMT VCTCXO

MtronPTI P/N: M6054S018

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _o		50.000000		MHz	
Frequency Stability						
Initial Tolerance	ΔF _T /F	-1.0		+1.0	ppm	@ +25 °C before reflow soldering, V _c = 1.65
Initial Tolerance	ΔF _T /F	-2.0		+2.0	ppm	@ +25 °C after two reflow soldering profiles, V _c = 1.65
vs Temperature	ΔF _T /F	-2.0		+2.0	ppm	deviation over temperature
Aging		-2.0		+2.0	ppm	first year
		-5.0		+5.0	ppm	10 years, including first year
Frequency vs. Supply Voltage				±0.2	ppm	For ±5% change in supply V
Frequency vs. Output Load				±0.2	ppm	For ±5% change in output load
Output						
Output Type		Clipped Sine Wave				
Output Load		10 kΩ // 10 pF				
Output Amplitude		0.8			V _{pk-pk}	
Startup Time	t _{su}			2	ms	
Frequency Adjustment						
Tuning Voltage		0.30	1.65	3.00		Pad 1
Tuning Range		±12			ppm	Referenced to frequency with V _c = 1.65
Additional Specifications						
Phase Noise			TBD		dBc/Hz	@ 10 Hz
				@ 100 Hz		
				@ 1 kHz		
				@ 10 kHz		
				@ 100 kHz		
				@ 1 MHz		
Supply Voltage & Current						
Operating Voltage	V _{DD}	3.135	3.3	3.465	V	
Operating Current	I _{DD}			3	mA	

Environmental Conditions:

Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+125	°C	
Mechanical 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)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	5.0 x 3.2 x 1.65 mm, Ceramic Leadless Chip Carrier. RoHS Compliant					

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Mechanical, Marking and Layout Information:

Pad	Function
1	Tuning Voltage
4	Ground/Case
5	Output
8	Supply Voltage
2, 3, 6, 7	Do not connect

Part Marking	
Line 1	50M000
Line 2	M yy ww vv

Marking Legend	
yy	Last Two Digits of Year
ww	Work Week
vv	Factory Code

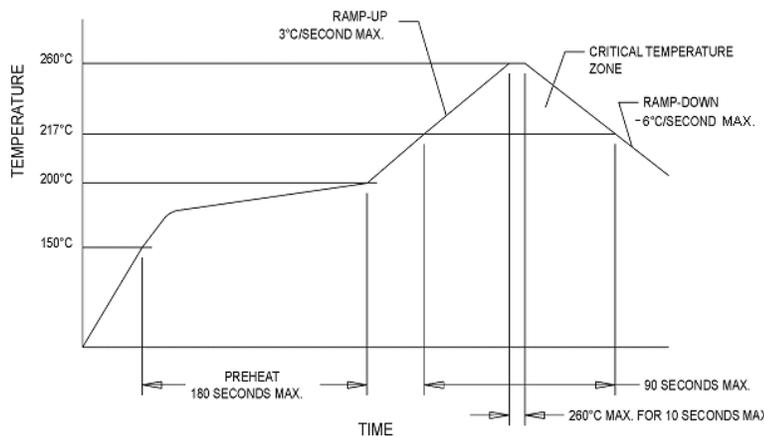
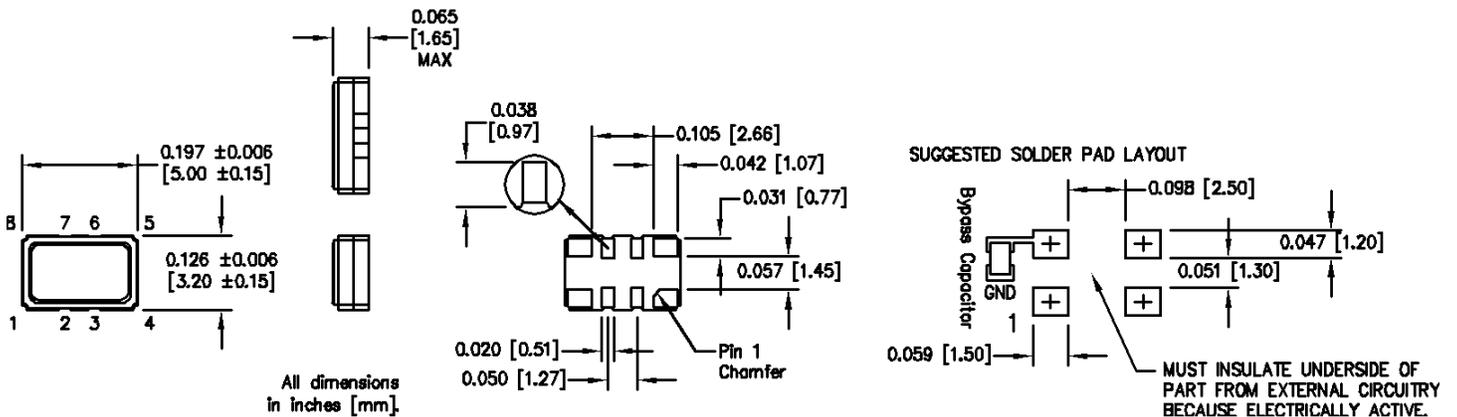


Figure 1

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
07/15/16	0	DCO	Original Release