

Specifications for a Stratum 3 SMT TCXO MtronPTI P/N M6151S012

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _o		10.240000		MHz	
Design		Must use Next Generation TCXO Design				
Crystal		Must use 20.480 MHz Crystal				
Frequency Stability						
Frequency Stability	ΔF/F			0.28	ppm	Over operating temperature (F _{Max} – F _{Min})/2
Holdover Stability				0.32	ppm	Inclusive of drift after 24hrs and deviation over operating temperature.
Overall Stability		-4.6		+4.6	ppm	Includes initial calibration @ +25°C, deviation over temperature, holdover, variations due to supply voltage, load, reflow soldering, and 10 yr. aging @+ 40°C.
Frequency Vs. Supply			± 0.02	± 0.1	ppm	For a 5% supply change
Frequency Vs. Load			± 0.02	± 0.1	ppm	For 5% load change
Output						
Output Type		HCMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T _{DC}	45	50	55	%	@ 50% of VDD
Output Logic Levels	V _{OL}	10% V _{DD}			V	
Output Level	V _{OH}			90% V _{DD}	V	
Rise/Fall Time				8	nS	Ref. 10% and 90%
Tri-state Function		Logic “1”, or floating, Logic “0”				Pad 8: Output Enabled. Pad 8: Output Disabled
Frequency Adjustment						
Control Voltage	VC	0.3	1.65	3.0	V	Pad 10
Frequency Adjust Range		± 4			ppm	Positive slope. Pad 10
Linearity		-3		+3	%	Positive slope
Input Leakage Current		-50		+50	μA	Pad 10
Input Resistance		100			kΩ	Pad 10
Modulation Bandwidth		2			kHz	Pad 10
Additional Specifications						
Phase Noise			-98		dBc/Hz	@ 10 Hz
			-125			@ 100 Hz
			-145			@ 1 kHz
			-153			@ 10 kHz
			-154			@ 100 kHz
			-156			@ 1 MHz
			-158			@ 10 MHz
Supply Voltage & Power Consumption						
Operating Voltage	V _{DD}	3.135	3.3	3.465	V	
Operating Current	I _{DD}			5.0	mA	

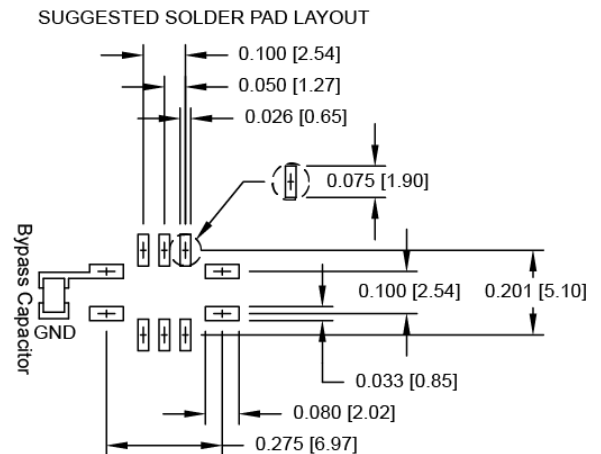
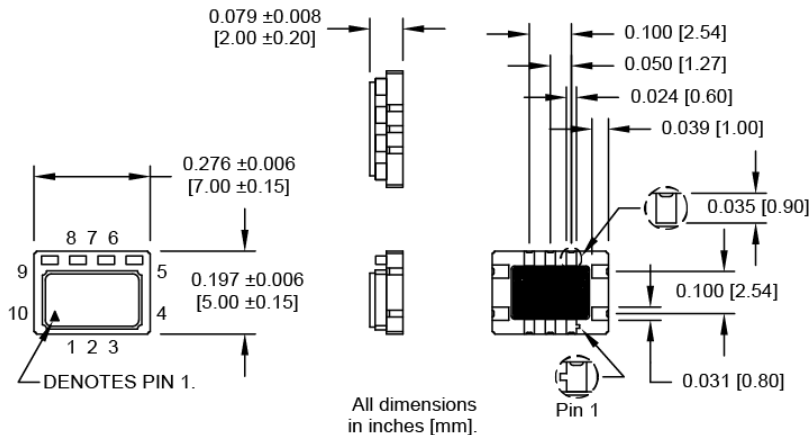
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Environmental Conditions:

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's, 6 ms duration, ½ sine wave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	5.0 x 7.0 x 2.0mm, 10-pad Ceramic Leadless Chip Carrier. RoHS Compliant.					

Mechanical, Marking and Layout Information:

Pad	Function
1	Do not connect
2	N/C
3	Do not connect
4	Ground/Case
5	Output
6	N/C
7	N/C
8	Do not connect
9	+V _{DD}
10	Do not connect



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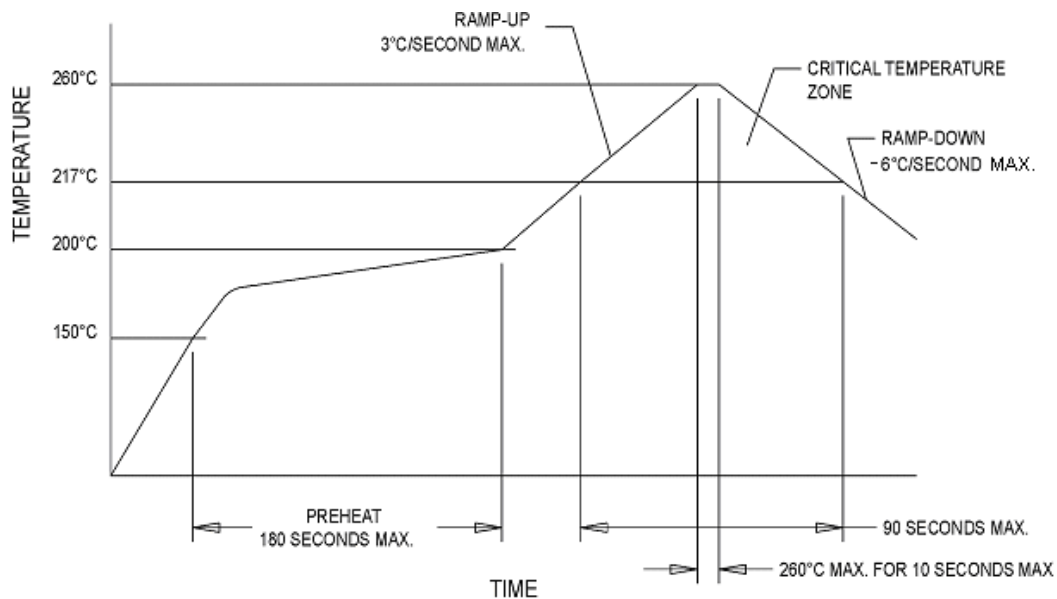


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
11/19/14	0	MM	Original Release.