

SPECIFICATION FOR RoHS 6 COMPLIANT SMT VCTCXO

MtronPTI P/N M6164S036

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _o		24.000000		MHz	
Frequency Stabilities						
vs Temperature	ΔF/F			0.5	ppm	(F _{MAX} -F _{MIN})/2 Over operating temperature range
vs Aging		-4.0		+4.0	ppm	10 years @ +55°C
vs Shock and Vibration		-0.7		+0.7		
vs. Supply	F _{VS}		± 0.02	± 0.1	ppm	For 5% voltage change
vs. Load	F _L		± 0.02	± 0.1	ppm	For 5% load change
vs Reflow		-0.3		+0.3	ppm	
Total Frequency Stability		-6.0		+6.0		All inclusive 10 years
Output						
Output Type		HCMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T _{DC}	40	50	60	%	@ 50% of VDD
Output Logic Levels	V _{OL}			20	% V _{CC}	
Output Level	V _{OH}	80			% V _{CC}	
Rise/Fall Time				6.5	nS	Ref. 10% and 90%
Tri-state Function		Logic "1", or floating, output Enabled. Logic "0", output Disabled.				Pad 8
Start-up Time	T _{SU}			10	mS	
Frequency Adjustment						
Adjustment Method		External Voltage				
Control Voltage Range	V _C	0.3	1.65	3.0	V _{DC}	Pad 10
Tuning Range		±5.0			ppm	Positive slope.
Modulation Bandwidth		2			kHz	
Input Impedance	Z _{IN}	100			KΩ	
Additional Specifications						
SSB Phase Noise (Under Static Conditions)			-93		dBc/Hz	@ 10Hz Offset
			-122			@ 100Hz Offset
			-144			@ 1kHz Offset
			-154			@ 10kHz Offset
			-156			@ 100kHz Offset
			-157			@ 1MHz Offset
G-sensitivity			0.6		ppb/g	
Supply Voltage & Power Consumption						
Operating Voltage	V _{DD}	3.135	3.3	3.465	V _{DC}	
Operating Current	I _{DD}			5	mA	

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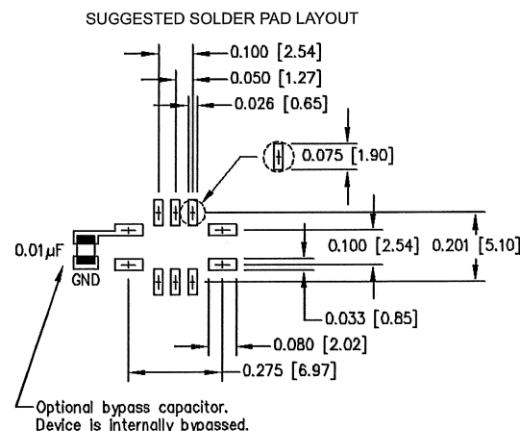
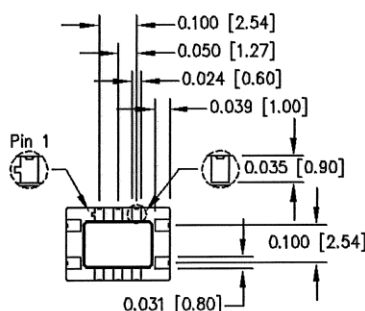
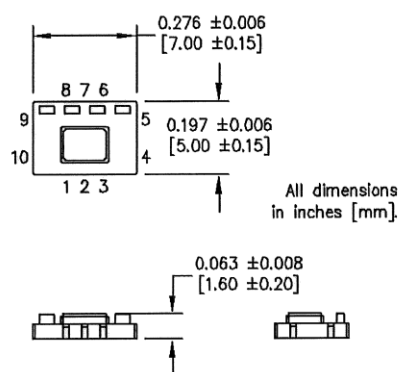
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Environmental & Mechanical Requirements:

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 MIL-STD-202, Method 208, except steam aging is not required					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	5.0 x 7.0 x 1.6mm, 10-pad Ceramic Leadless Chip Carrier. RoHS Compliant.					

Mechanical, Marking and Layout Information:

Pad	Function
1	N/C
2	N/C
3	N/C
4	Ground/Case
5	Output
6	N/C
7	N/C
8	Tristate
9	+V _{DD}
10	Voltage Control



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Solder Profile:

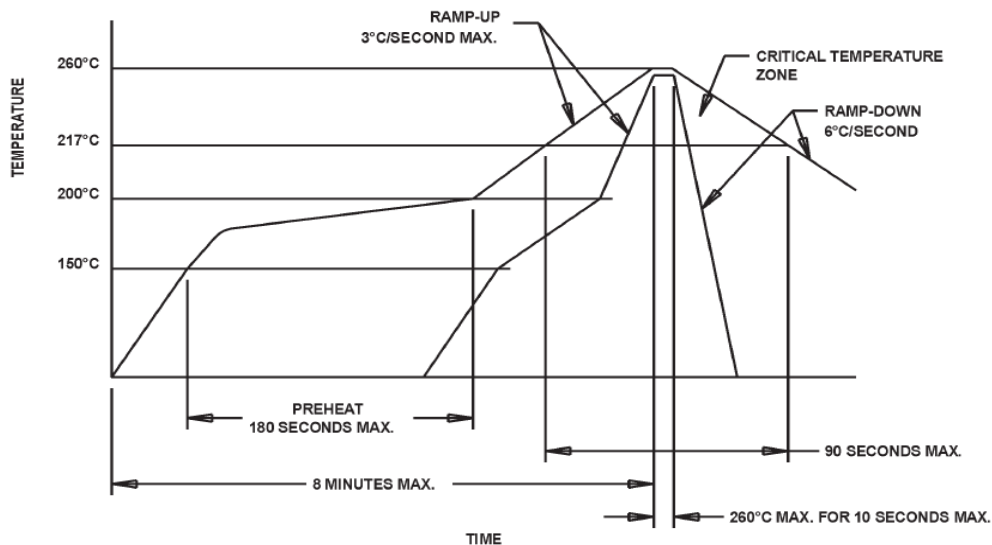


Figure 1

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
07/11/16	0	MM	Original Release.