MtronPTI
...when timing matters

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Specification for an SMT VCTCXO
MtronPTI P/N: M6162S002

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		50.500000		MHz	
Frequency Tolerance		-1.0		+1.0	ppm	@ +25°C
	Frequency Stabilities					
Frequency vs. Temperature				1.0	ppm	$(F_{MAX}-F_{MIN})/2$
Frequency vs. Reflow		-1.0		+1.0	ppm	
Aging		-5.0		+5.0	ppm	Includes 1st year
Frequency vs. Supply	F_{VS}	-0.1		+0.1	ppm	For 5% voltage change
Frequency vs. Load	F_L	-0.1		+0.1	ppm	For 5% load change
	Output					
Output Type		Clipped Sine Wave				
Output Load		10kΩ || 10*pF*				
Output Level	V_{OUT}	0.8			V_{pk-pk}	
	Frequency Adjustment					
Frequency Adjust Method		External Voltage				
Control Voltage Range		0.3	1.5	2.7	V	
Frequency Adjust Range		±9.2			ppm	Over the control voltage range
Linearity				3	%	
Input Leakage Current		-50		+50	*µA*	
Input Resistance		100			KΩ	
Modulation Bandwidth		2			kHz	
	Additional Specifications					
SSB Phase Noise (Under Static Conditions)			-80		dBc/Hz	@ 10Hz Offset
			-108		dBc/Hz	@ 100Hz Offset
			-132		dBc/Hz	@ 1kHz Offset
			-149		dBc/Hz	@ 10kHz Offset
			-156		dBc/Hz	@ 100kHz Offset
			-157		dBc/Hz	@ 1MHz Offset
Tri-state Function		Logic “1”, or floating, output Enabled. Logic “0”, output Disabled.				Pad 4
Startup Time	t_{SU}			10	*mS*	
	Temperature and Supply					
Operating Temperature	T_A	-40		+85	°C	
Storage Temperature	T_S	-55		+125	°C	
Operating Voltage	V_S	+2.85	+3.0	+3.15	V_{DC}	
Operating Current	I_S			10	*mA*	

Environmental & Mechanical Requirements:

Shock	Per MIL-STD-202, Method 213, Condition C.
Vibration	Per MIL-STD-202, Method 201 & 204
Solderability	Per MIL-STD-202, Method 208, except steam aging is not required
Max. Soldering Conditions	Ref. figure on Page 2.
Package Type	5 x 7 x 2.0mm, 10-pad leadless ceramic SMD.
RoHS	Full RoHS Compliance

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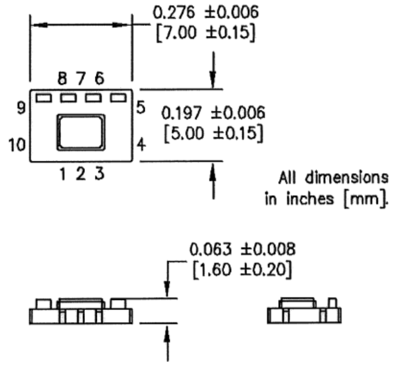
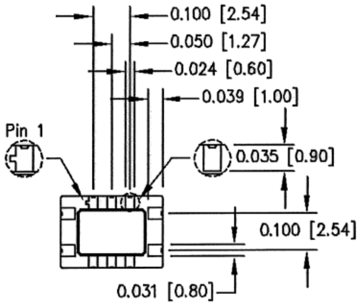
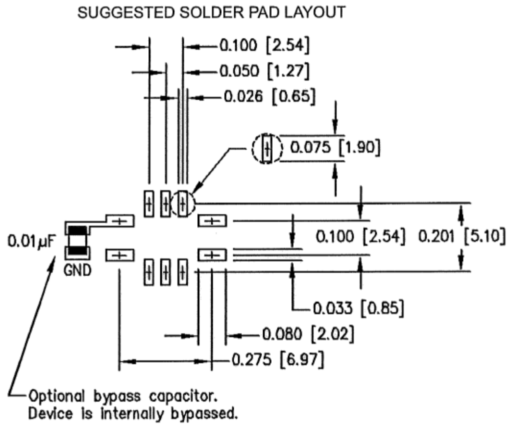
Dimensions, Pin Out, Information :







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**
10	**Voltage Control**

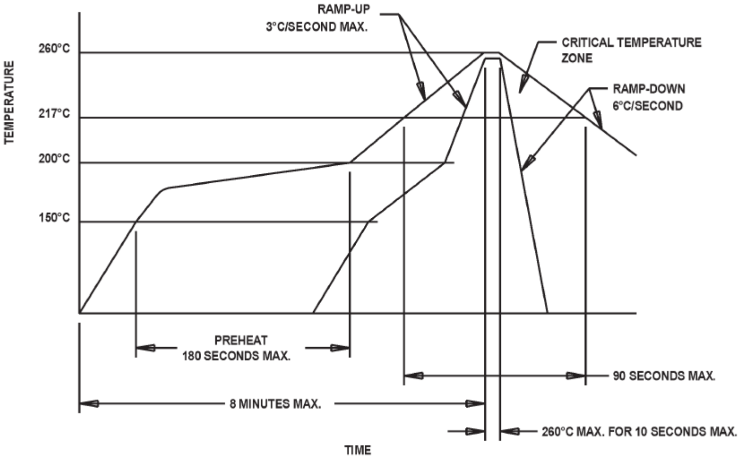


Figure 1

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
10/16/13	0	MM	Original Release.
11/17/14	A	MM	Updated aging specification.