



## Specifications for a SMT VCTCXO MtronPTI P/N M6171S010

### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>o</sub>		10.000000		MHz	
Frequency Tolerance		-1.0		+1.0	ppm	@ +25°C
<b>Frequency Stability</b>						
vs. Temperature	ΔF/F			0.28	ppm	(F <sub>max</sub> – F <sub>min</sub> )/2
vs. Supply			± 0.02	± 0.1	ppm	For a 5% supply change
vs. Load			± 0.02	± 0.1	ppm	For 5% load change
vs. Aging		-1.0		+ 1.0	ppm	Per year
		-3.0		+ 3.0	ppm	10 years
<b>Output</b>						
Output Type		HCMOS Compatible				
Output Load			15		pF	
Symmetry (duty cycle)	t <sub>DC</sub>	40		60		
Logic Level "0"	V <sub>OH</sub>	80			%V <sub>DD</sub>	
Logic Level "1"	V <sub>OL</sub>			20	%V <sub>DD</sub>	
Rise/Fall Time	t <sub>r</sub> /t <sub>f</sub>			6.5	ns	
Tristate Function		Logic "1", or floating, output Enabled. Logic "0", output Disabled.				Pad C
<b>Frequency Adjustment</b>						
Control Voltage Range	V <sub>C</sub>	0.3	1.65	3.0	V <sub>DC</sub>	Pad 1
Tuning Range		±8			ppm	Positive slope.
Linearity				5	%	
Input Resistance	Z <sub>IN</sub>	100			KΩ	
Modulation Bandwidth		2			kHz	
<b>Additional Specifications</b>						
Phase Noise			-102		dBc/Hz	@ 10 Hz
			-129			@ 100 Hz
			-149			@ 1 kHz
			-155			@ 10 kHz
			-156			@ 100 kHz
<b>Supply Voltage &amp; Power Consumption</b>						
Operating Voltage	V <sub>DD</sub>	3.135	3.3	3.465	V	
Operating Current	I <sub>DD</sub>			3	mA	

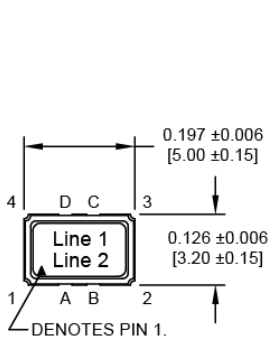
### Environmental Conditions:

Operating Temperature	T <sub>A</sub>	-40		+85	°C	
Storage Temperature	T <sub>S</sub>	-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 3.2 x 2.49 mm, Ceramic Leadless Chip Carrier. RoHS Compliant (M617x Series)					

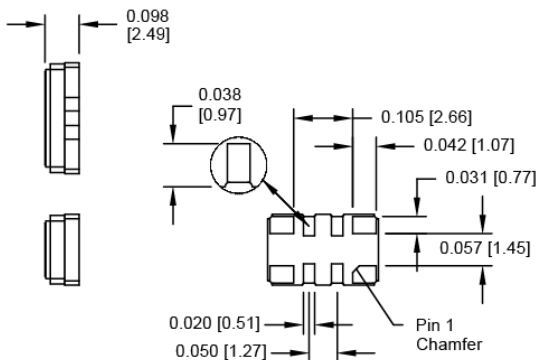
### Mechanical, Marking and Layout Information:

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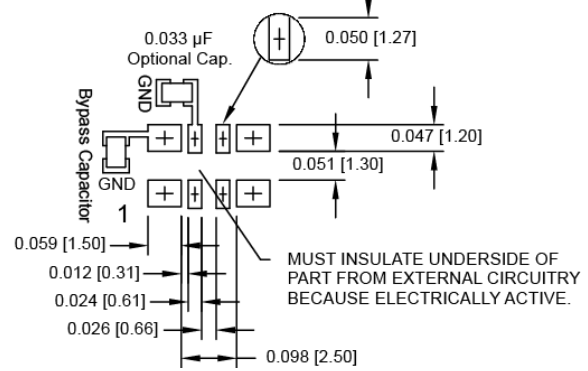
Pad	Function
1	Control Voltage
A	N/C
B	N/C
2	Ground/Case
3	Output
C	Tristate or N/C
D	Low Phase Noise Capacitor or N/C
4	Supply Voltage



All dimensions in inches [mm].



### SUGGESTED SOLDER PAD LAYOUT



### Soldering Profile:

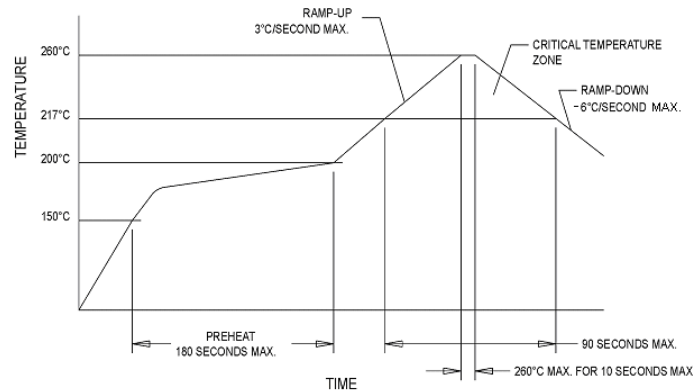


Figure 1

### Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
03-19-20	A	BRR	Original Release.