

## SPECIFICATION FOR SMT TCXO

### MtronPTI P/N M6053S020

#### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>O</sub>		25.000000		MHz	
<b>Frequency Stability</b>						
Frequency Tolerance		-1.0		+1.0	ppm	@ +25°C.
		-1.5		+1.5		@ +25°C after 2 reflow profiles (+260C max, 10 seconds)
Frequency Stability	ΔF/F	-2.5		+2.5	ppm	Over Operating Temperature,
Frequency Vs. Supply	ΔF <sub>VDD</sub> /F	-0.3		+0.3	ppm	For ±5% voltage change
Frequency Vs. Output Load	ΔF <sub>LOAD</sub> /F	-0.2		+0.2	ppm	For ±10% load change
<b>Output</b>						
Output Type		CMOS Compatible				
Output Load			15		pF	
Symmetry (duty cycle)	T <sub>DC</sub>	40	50	60	%	@ 50% of V <sub>DD</sub>
Logic "1" Level	V <sub>OH</sub>	80			% V <sub>DD</sub>	CMOS load
Logic "0" Level	V <sub>OL</sub>			0.5	V	CMOS load
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			5	ns	From 10% to 90% V <sub>DD</sub>
Startup Time	T <sub>SU</sub>			10	ms	
<b>Supply Voltage &amp; Power Consumption</b>						
Operating Voltage	V <sub>DD</sub>	3.135	3.30	3.465	V	
Operating Current	I <sub>DD</sub>			6.0	mA	

#### Environmental Conditions:

Operating Temperature	T <sub>A</sub>	-30		+85	°C	
Storage Temperature	T <sub>S</sub>	-55		+105	°C	
Mechanical Shock	Per MIL-STD-202, Method 213 (2000 g, 0.3 ms duration, ½ sine wave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Hermeticity	Per MIL-STD-202, Method 112 (1x10 <sup>-8</sup> atm.cc/s of helium) (Crystal unit only)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	5.0 x 3.2 x 1.5 mm, Ceramic Leadless Chip Carrier (M6053 Series)					

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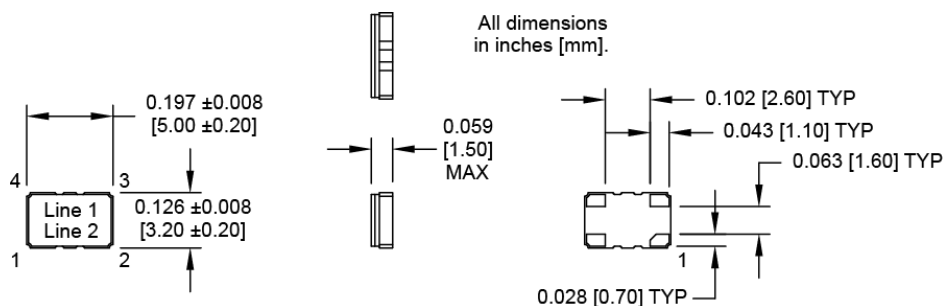
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#### Mechanical, Marking and Layout Information:

Part Marking	
Line 1	25M000
Line 2	* M y m v

Legend	
*	Pin 1 indicator
y	Last digit of year
m	Letter code month
v	Factory Code

Pad	Function
1	N/C
2	GND
3	Output
4	+V <sub>DD</sub>



#### SUGGESTED SOLDER PAD LAYOUT

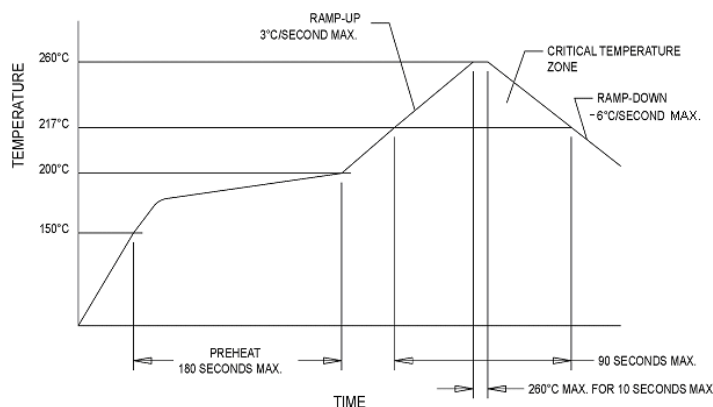
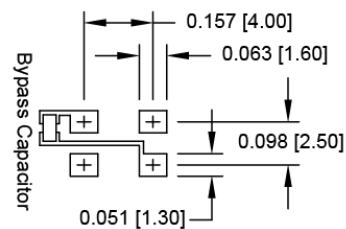


Figure 1

#### Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
06/08/16	0	MM	Original Release.