



SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS SMT OSCILLATOR MtronPTI Part Number M2002T278

I. General & Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions	
Frequency of Operation	F _O		25.000000		MHz		
Frequency Stability							
vs. Temperature	ΔF/F	-30		+30	ppm	Includes initial tolerance @ +25°C and deviation over the operating temperature range	
Aging		-3		+3	ppm	1 st year	
		-2		+2	ppm	Thereafter (per year)	
RF Output							
Output Type		HCMOS/TTL Compatible					
Output Load				15	pF		
Symmetry (duty cycle)	T _{DC}	45	50	55	%	Ref to ½ V _{DD}	
Logic "1" Level	V _{OH}	90% V _{DD}			V	HCMOS load	
Logic "0" Level	V _{OL}				10% V _{DD}	HCMOS load	
Rise/Fall Time	T _R /T _F				5	ns	10% to 90% V _{DD} HCMOS load
Start-Up Time					10	ms	
Tristate Function		80% V _{DD} or N/C				V	Pad 1: Output Enabled
					20% V _{DD}	V	Pad 1: Output Disabled to high-Z
Supply Voltage & Power Consumption							
Operating Voltage	V _{DD}	3.0	3.3	3.6	V		
Operating Current	I _{DD}				20	mA	
Other Parameters							
Phase Jitter (RMS)	Φ _J	0.200		0.250	pS	12KHz to 5MHz	

II. 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 sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	5.0 x 7.0 x 1.7 mm, 4-pad Ceramic Leadless Chip Carrier (M2 type)					

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III. Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tristate
2	Ground
3	Output
4	+V _{DD}

Part Marking	
Line 1	M2002T278
Line 2	25M0000
Line 3	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code

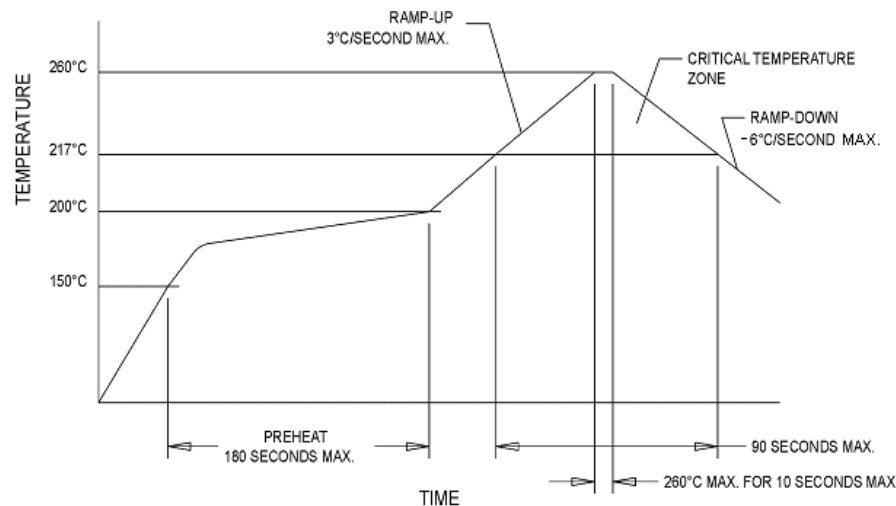
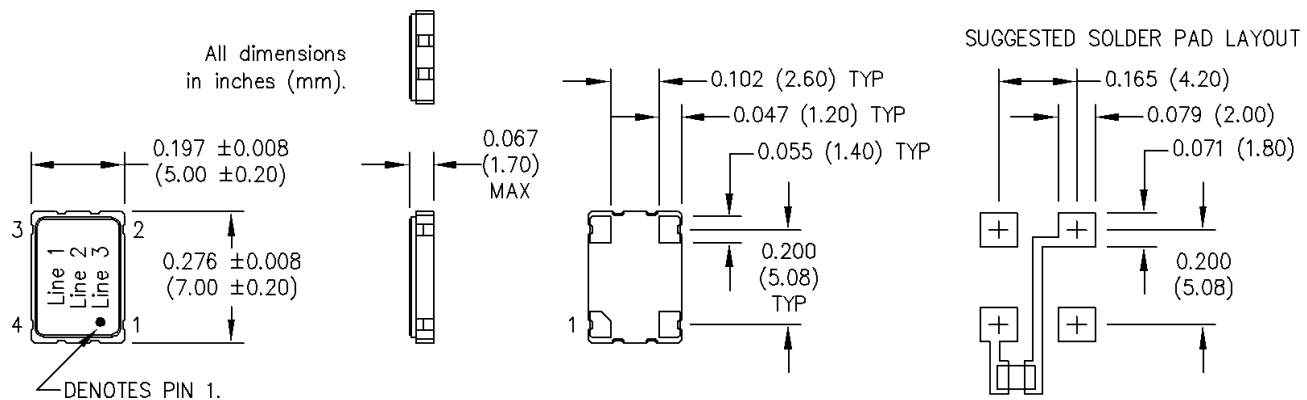


Figure 1

IV. Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
08/26/16	0	MM	Original release