

SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS SMT OSCILLATOR MtronPTI P/N M2002T246

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _O		50.000000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-50		+50	ppm	Includes initial tolerance, deviation over temperature, supply voltage variation, load variation, shock, vibration, and aging.
Aging		-3		+3		1 st year
		-2		+2	ppm	Thereafter (per year)
RF Output						
Output Type		HCMOS/TTL Compatible				
Output Load				15/2	pF/TTL	
Symmetry (duty cycle)	T _{DC}	40	50	60	%	Ref to ½ V _{DD}
Logic "1" Level	V _{OH}	90% V _{DD}			V	HCMOS load
		V _{DD} - 0.5			V	TTL Load
Logic "0" Level	V _{OL}			10% V _{DD}	V	HCMOS load
				0.5		TTL Load
Rise/Fall Time	T _R /T _F			6	nS	10% to 90% V _{DD} HCMOS load 0.5 V to 2.8 V TTL load
Tristate Logic		Logic "1" or Open Logic "0"				Pad 1: Output Enabled Pad 1: Output Disabled to high-Z
Supply Voltage & Power Consumption						
Operating Voltage	V _{DD}	2.97	3.3	3.63	V	
Operating Current	I _{DD}			40	mA	

Environmental & Mechanical Requirements:

Operating Temperature	T _A	-55		+125	°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)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	5.0 x 7.0 x 1.9 mm, 4-pad Ceramic Leadless Chip Carrier (M2 type)					

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Dimensions, Marking, and Pin Out Information:

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

Part Marking	
Line 1	M2002T246
Line 2	50M0000
Line 3	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code

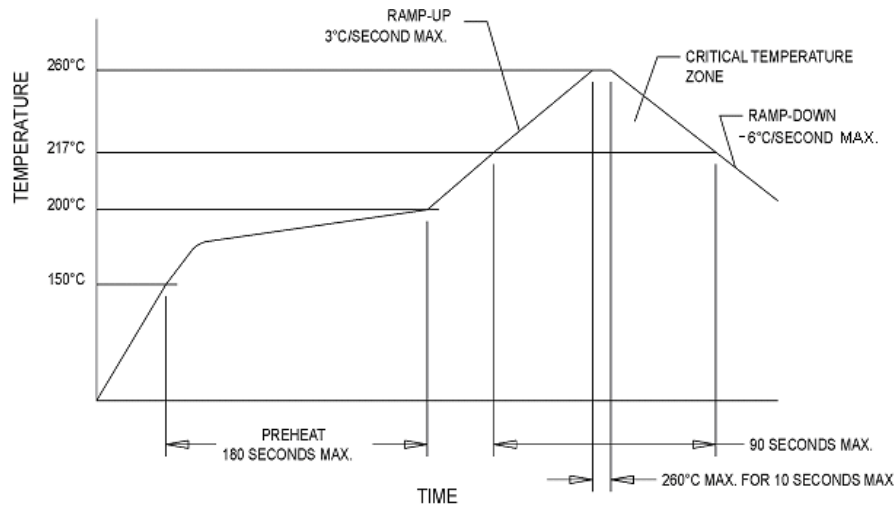
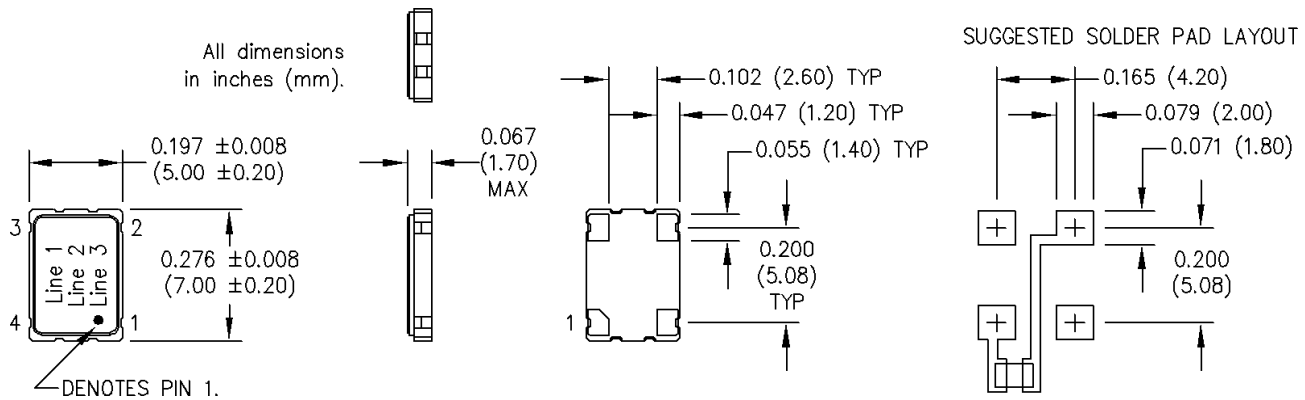


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
12/18/14	0	MM	Original release.