MtronPTI ...when timing matters

1703 E. Highway 50 Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
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SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS SMT OSCILLATOR
MtronPTI P/N M2002T243

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		56.000000		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		-10		+10	ppm	Per year
RF Output						
Output Type		HCMOS/TTL Compatible				
Output Load				50	pF	
Symmetry (duty cycle)	T_{DC}	40	50	60	%	Ref to ½ V_{DD}
Logic "1" Level	V_{OH}	90% V_{DD}			V	HCMOS load
		2.8			V	TTL Load
Logic "0" Level	V_{OL}			10% V_{DD}	V	HCMOS load
				0.4		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	-40		+85	°C	
Storage Temperature	T_S	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition I.					
Vibration	Per MIL-STD-202, Method 204 Condition C.					
Thermal Shock	Per MIL-STD-202, Method 107, Condition B-1.					
Resistance to Solvents	Per MIL-STD-202, Method 215.					
Hermeticity	Per MIL-STD-202, Method 112, Condition C & D.					
Solderability	Per MIL-STD-202, Method 208.					
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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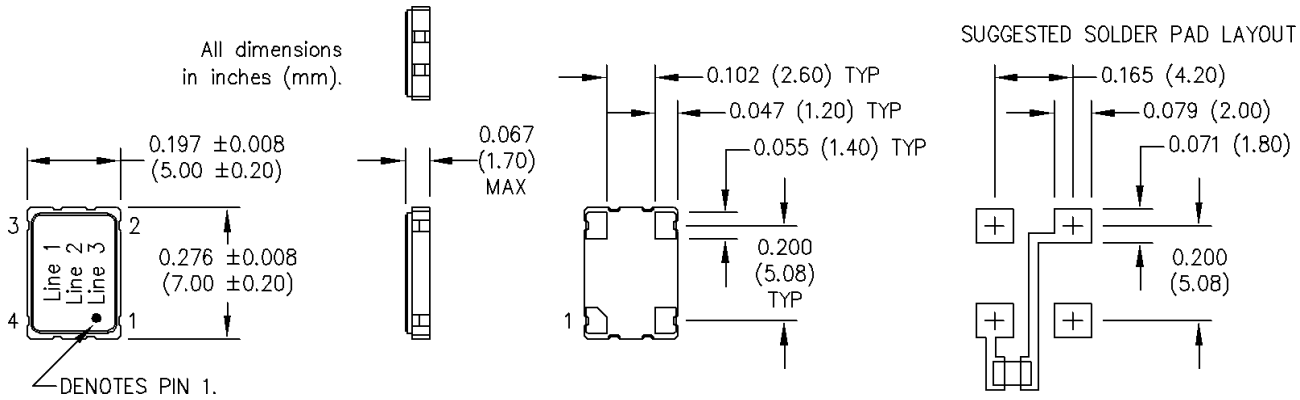
Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tristate
2	Ground
3	Output
4	$+V_{DD}$

Part Marking	
Line 1	M2002T243
Line 2	56M0000
Line 3	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code



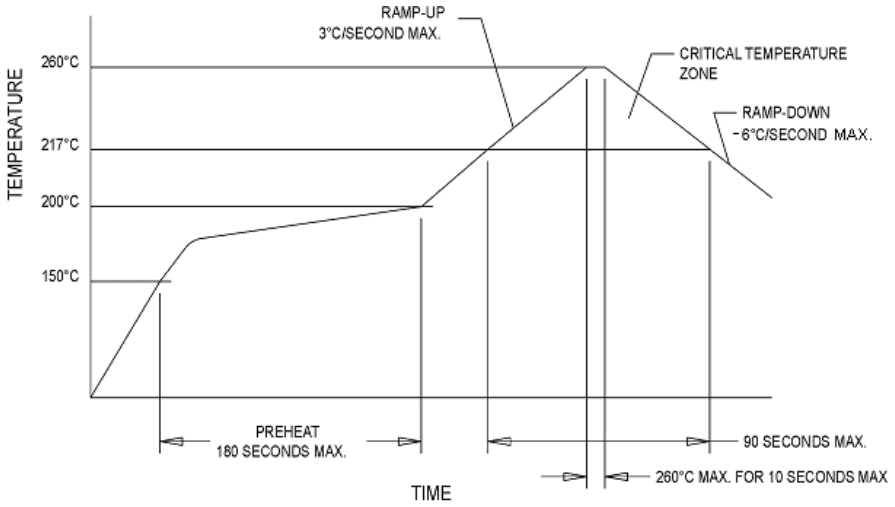


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
12/02/14	0	MM	Original release.