



SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS SMT OSCILLATOR MtronPTI P/N M2002S327

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _o		155.520000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-50		+50	ppm	Includes initial accuracy @ +25°C and deviation over operating temperature range.
Aging		-3.0		+3.0	ppm	1 st year
		-2.0		+2.0		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}	V	HCMOS load
Rise/Fall Time	T _R /T _F			2	nS	Measured 20 to 80% Waveform
Start-Up Time				10	mS	
Tristate Logic		80% V _{DD} or N/C			V	Pad 1: Output Enabled
				20% V _{DD}	V	Pad 1: Output Disabled to high-Z
Other Parameters						
Phase Jitter	Φ _J			1.0	pS RMS	10KHz to 20MHz
Total Jitter	T _J			40	pS pk-pk	
Supply Voltage & Power Consumption						
Operating Voltage	V _{DD}	2.97	3.3	3.63	V	
Operating Current	I _{DD}			55	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 C (100 g's, 6 ms duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)					
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 1.7 mm, 4-pad Ceramic Leadless Chip Carrier (M2 type)					

SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS SMT OSCILLATOR MtronPTI P/N M2002S327

Dimensions, Marking, and Pin Out Information:

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

Part Marking	
Line 1	M2002S327
Line 2	155M5200
Line 3	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code

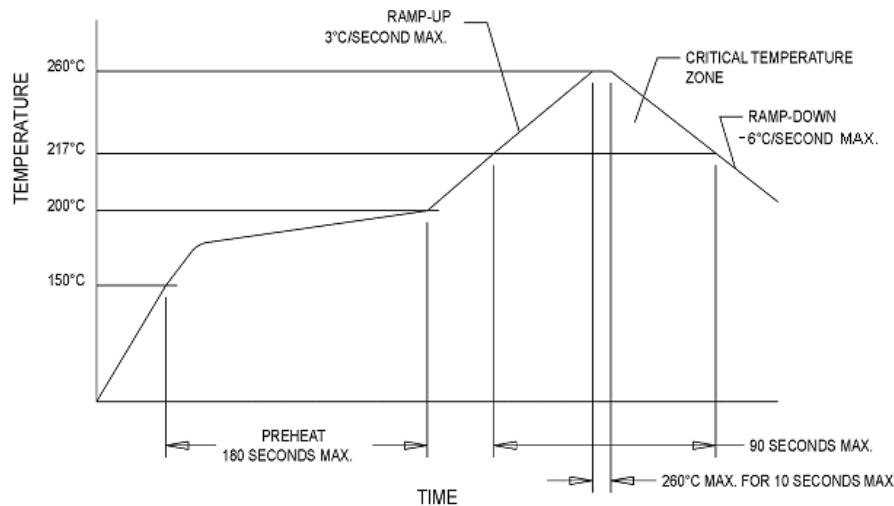
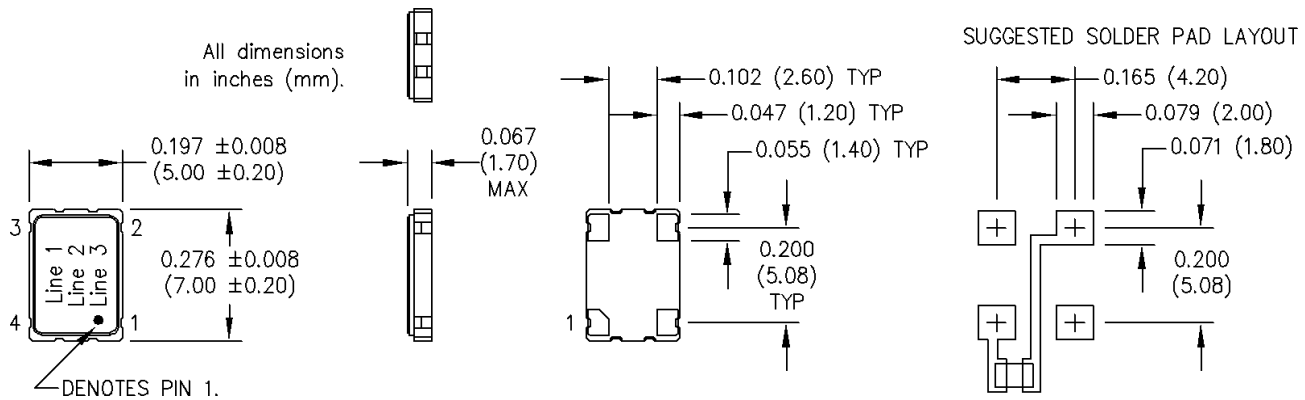


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
12/31/05	0	WNJ	Original release.
1/5/05	A	WNJ	Changed Maximum Reflow to +260°C profile. Supersedes 12/31/05 release.
4/25/07	B	WNJ	Updated data sheet format. Supersedes 1/5/05 release.
11/06/14	C	MM	Updated to new datasheet format.