

SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS SMT OSCILLATOR

MtronPTI P/N: M2532S131

I. General & Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _o		24.000000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-50		+50	ppm	Includes initial accuracy @ +25°C, deviation over operating temperature range, supply voltage and output load variations, drop shock, vibration, and first year aging
RF Output						
Output Type		HCMOS Compatible				
Output Load			15		pF	
Symmetry (duty cycle)	T _{DC}	45		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			5	ns	10% to 90% V _{DD}
Start-Up Time				10	ms	
Tristate Logic		Logic "1" (70% V _{DD} min) or Open			V	Pad 1: Output Enabled
		Logic "0" (30% V _{DD} max)			V	Pad 1: Output Disabled to high-Z
Other Parameters						
Random Jitter			4	10	ps RMS	1 Sigma
Supply Voltage & Power Consumption						
Operating Voltage	V _{DD}	2.97	3.30	3.63	V	
Operating Current	I _{DD}			20	mA	

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)					
Moisture Sensitivity Level (MSL)	MSL 1					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	4-pad 2.5 X 3.2 X 1.2 mm leadless ceramic. RoHS compliant.					

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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	24M000
Line 2	M y m v

Legend	
y	Last digit of year
m	Month letter code
v	Factory code

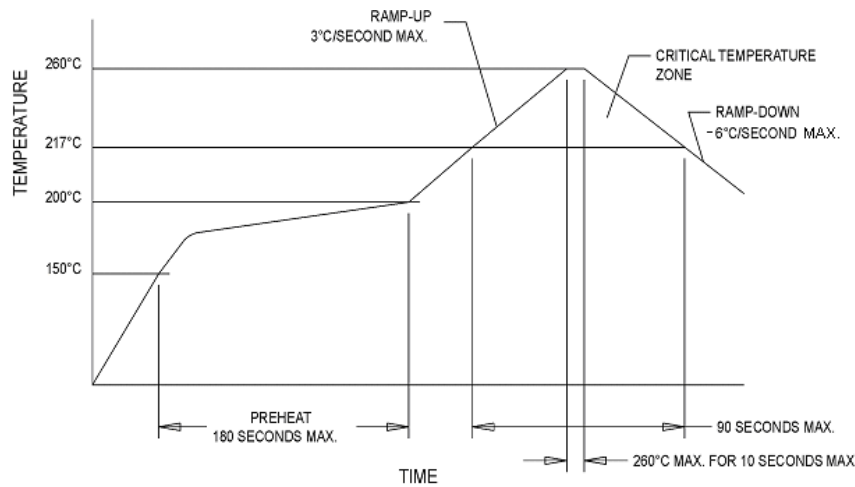
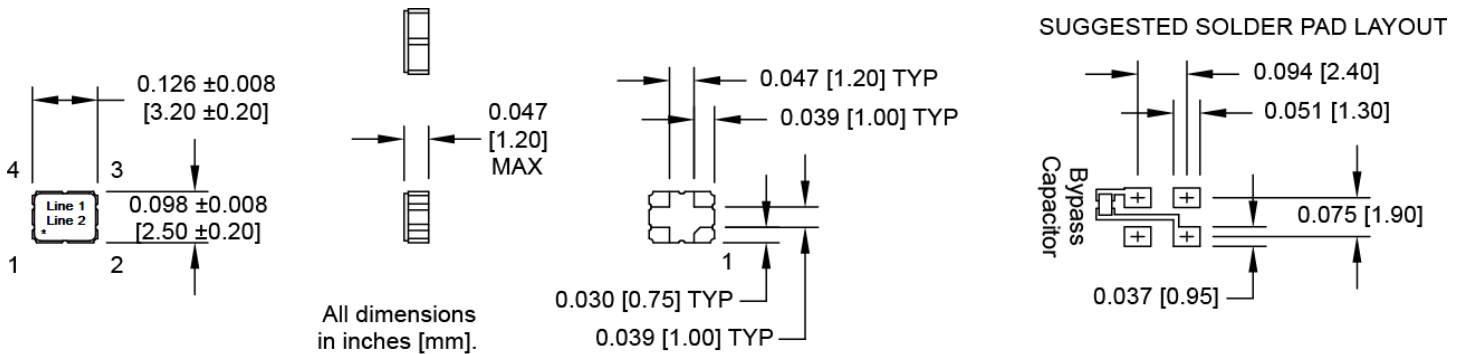


Figure 1

IV. Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
09/13/17	0	MM	Original release