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: M2532S147

I. General & Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		25.000000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-25		+25	ppm	Includes initial accuracy @ +25°C, deviation over operating temperature range.
Aging		-3		+3	ppm	1st year @ +25°C
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			10	ns	20% Vdd to 80% Vdd
Tristate Logic		Logic "1" (70% Vdd min) or Open			V	Pad 1: Output Enabled
		Logic "0" (30% Vdd max)			V	Pad 1: Output Disabled to high-Z
Phase Jitter (RMS)	Φ_J			1.0	ps	12 kHz to 20 MHz
Supply Voltage & Power Consumption						
Operating Voltage	V_{DD}	3.135	3.300	3.300	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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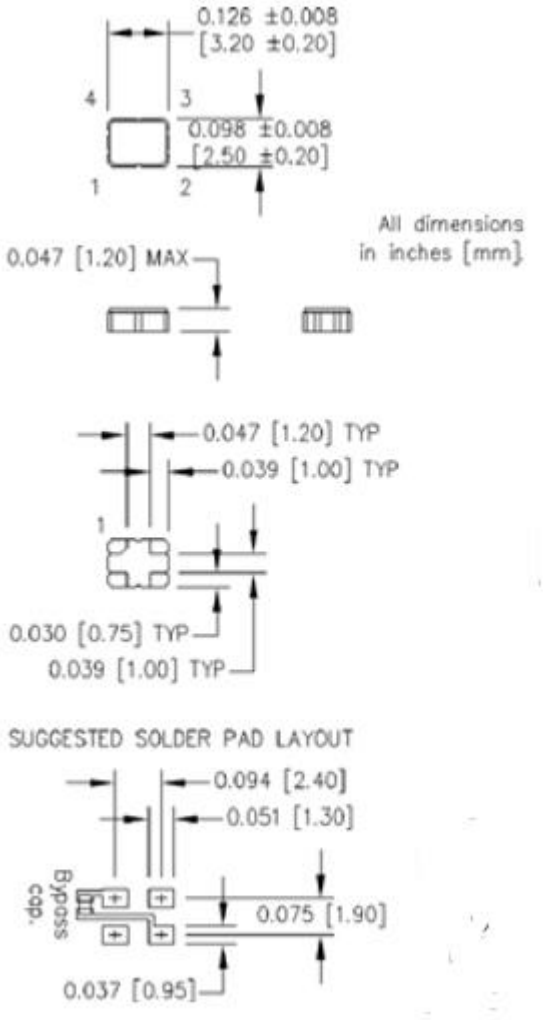
III. Dimensions, Marking, and Pin Out Information:

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

Part Marking	
Line 1	25M000
Line 2	M y m vv

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



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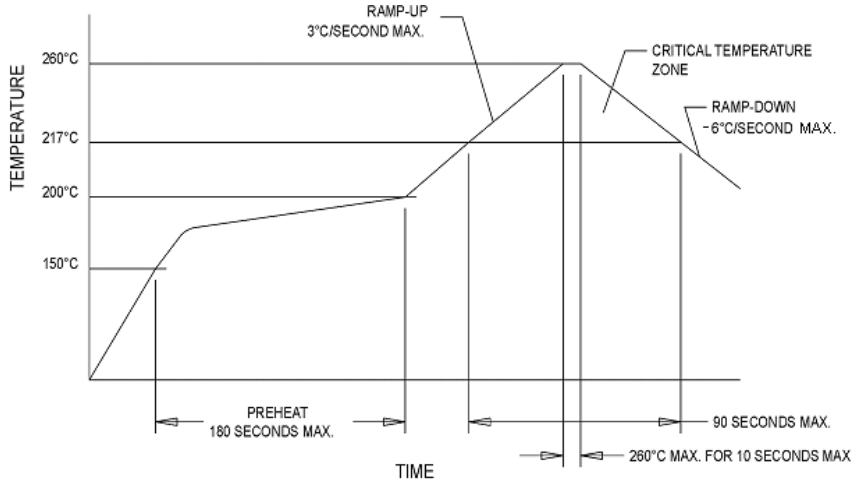

Figure 1

IV. Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
09-3-20	A	MM	Original Release