



## SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS SMT OSCILLATOR

### MtronPTI P/N: M2532S151

#### I. General & Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>o</sub>		20.000000		MHz	
<b>Frequency Stability</b>						
Frequency Stability	ΔF/F	-25		+25	ppm	Includes initial accuracy @ +25°C, deviation over operating temperature range.
Aging		-5		+5	ppm	Per year @ +25°C
<b>RF Output</b>						
Output Type		HCMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T <sub>DC</sub>	45		55	%	Ref to ½ V <sub>DD</sub>
Logic "1" Level	V <sub>OH</sub>	90% V <sub>DD</sub>			V	HCMOS load
Logic "0" Level	V <sub>OL</sub>			10% V <sub>DD</sub>	V	HCMOS load
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			10	ns	10% V <sub>DD</sub> to 90% V <sub>DD</sub>
Tristate Logic		Logic "1" (70% V <sub>DD</sub> min) or Open			V	Pad 1: Output Enabled
		Logic "0" (30% V <sub>DD</sub> max)			V	Pad 1: Output Disabled to high-Z
Start-Up Time				10	ms	
<b>Other Parameters</b>						
Random Jitter			4	10	ps RMS	1 Sigma
<b>Supply Voltage &amp; Power Consumption</b>						
Operating Voltage	V <sub>DD</sub>	3.135	3.300	3.465	V	
Operating Current	I <sub>DD</sub>			10	mA	

#### II. Environmental & Mechanical Requirements:

Operating Temperature	T <sub>A</sub>	-40		+85	°C	
Storage Temperature	T <sub>S</sub>	-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 <sup>-8</sup> 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 <sub>DD</sub>

Part Marking	
Line 1	20M000
Line 2	M y m v

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

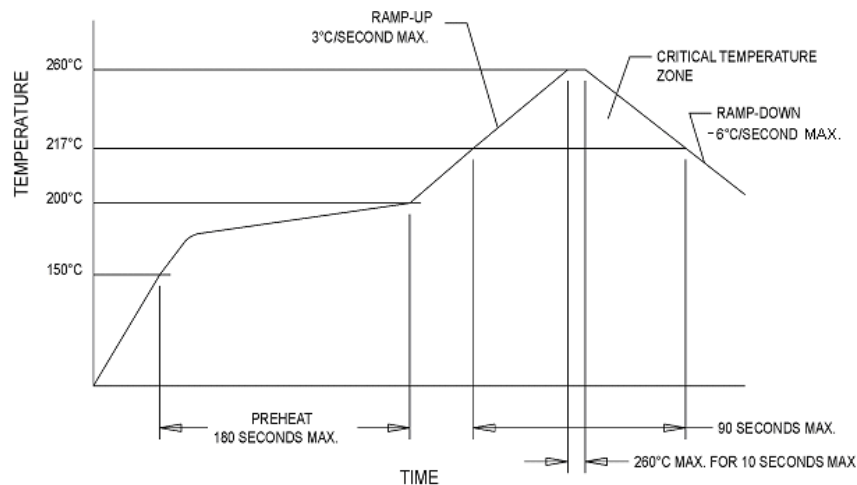
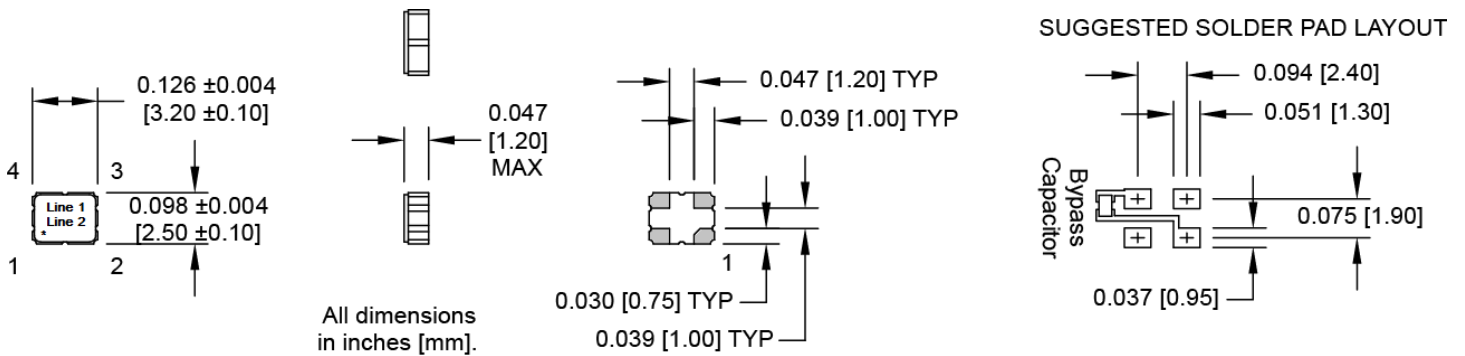


Figure 1

### IV. Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
12-14-20	A	MM	Original Release