

SPECIFICATION FOR HCMOS COMPATIBLE SMT OSCILLATOR MtronPTI P/N M2532S091

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _o		20.000000		MHz	
Frequency Stability	ΔF/F	-100		+100	ppm	Calibration, deviation over temperature, shock, vibration, supply voltage, and 1 st year aging.
Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+125	°C	
Aging		-3		+3	ppm	1 st year
		-2		+2	ppm	Thereafter (per year)
Operating Voltage	V _{DD}	3.0	3.3	3.6	V	
Operating Current	I _{DD}			13.0	mA	30 pF output load
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	From 10% to 90% V _{DD}
Start-Up Time			4	10	mS	
Standby Function		Logic (80% V _{DD} min) or floating Logic (20% V _{DD} max) to a high-Z state				Pad 1: Enables output
						Pad 1: Disables output
Random Jitter			4	10	pS RMS	1 Sigma

Environmental & Mechanical Requirements:

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	4-pad 2.5 X 3.2 X 1.1 mm leadless ceramic. RoHS compliant.

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Dimensions, Marking, and Pin Out Information:

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

Part Marking	
Line 1	20M000
Line 2	M (y-ww)

Legend	
y	Year
ww	Work week

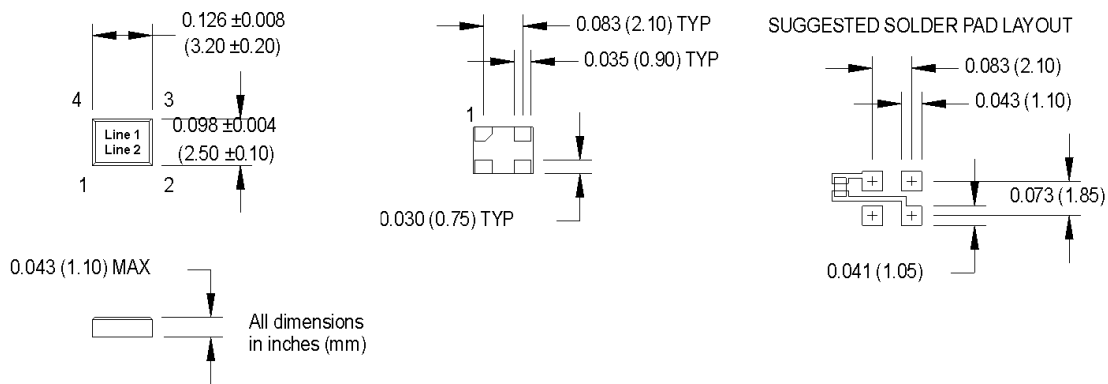
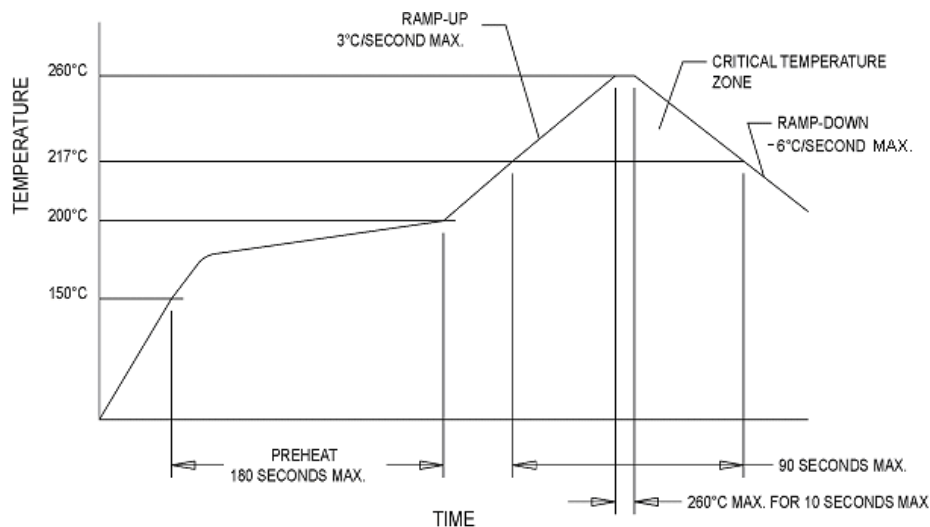


Figure 1



DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
5/23/12	0	MM	Original release.