

SPECIFICATION FOR HCMOS COMPATIBLE SMT OSCILLATOR MtronPTI P/N M2005S033

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _O		77.760000		MHz	
Frequency Stability	ΔF/F	-50		+50	ppm	Includes initial tolerance and deviation over temperature
Operating Temperature	T _A	-40		+85	°C	
Operating Voltage	V _{DD}	2.97	3.3	3.63	V	
Operating Current	I _{DD}			35	mA	
Output Type		HCMOS/TTL Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	C	45		55	%	Ref to ½ V _{DD} and 1.4 V
Logic "1" Level	V _{OH}	V _{DD} - 0.5			V	HCMOS load
Logic "0" Level	V _{OL}			0.5	V	HCMOS load
Rise/Fall Time	T _R /T _F			6	nS	From 10% to 90% V _{DD} and 0.5 V to 2.4 V
Tri-state Function		Logic "1" or floating enables output Logic "0" disables output to a Hi-Z				Pad1
Jitter (Cycle to Cycle)				20	pS	1-Sigma
Start-up Time	T _{SU}			10	mS	

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)
Hermeticity	Per MIL-STD-883, Method 1014, Condition A1 & C1 (1 x 10 ⁻⁸ atm cc/s of helium)
Storage Temperature	-55°C to +125°C
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	9 X 14 mm 4-J lead ceramic (M8s type) - (Sn/Pb tinned leads, 63/37)

Absolute Maximum Ratings:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Supply Voltage	V _{DD}	-0.5		7	V	
Storage Temperature	T _{STG}	-55		150	°C	

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Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tri-state
2	Ground
3	Output
4	+V _{DD}

Part Marking	
Line 1	M2005S033
Line 2	77.760000M
Line 3	M yyww

Legend	
yy	Year
ww	Work week

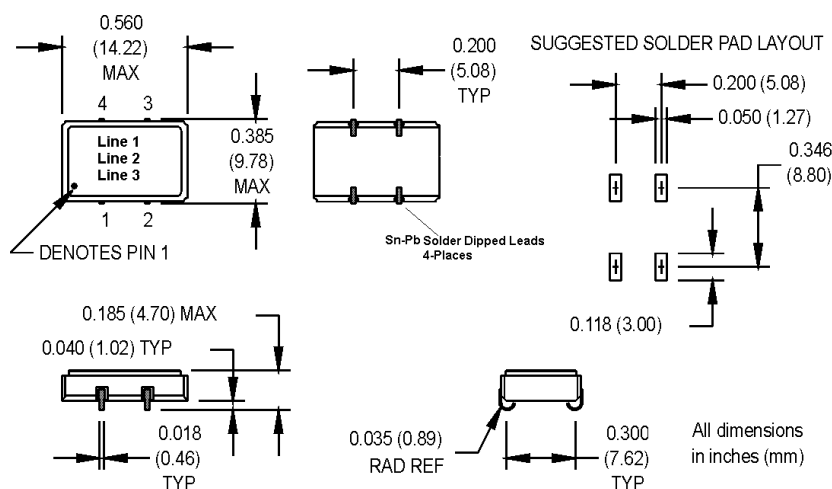
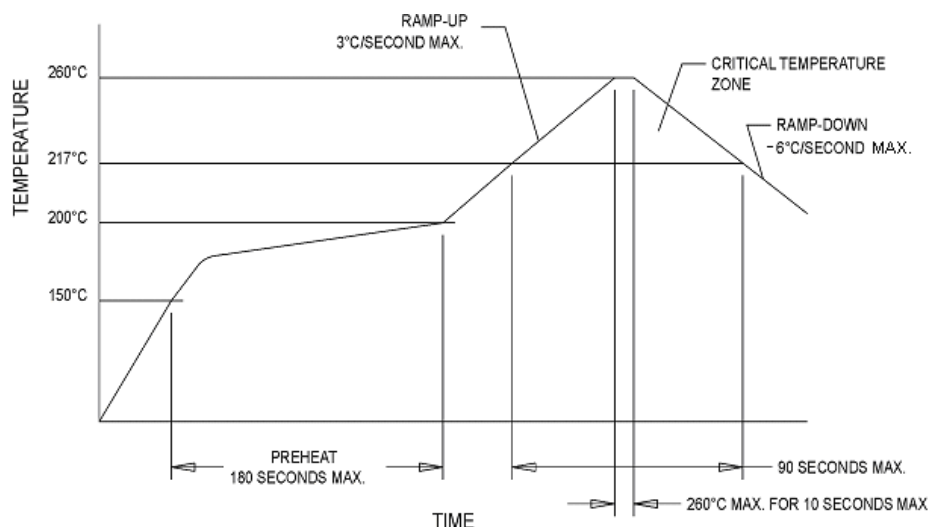


Figure 1



Datasheet Revision Table:

Date	Rev.	PCN	Details of Revision
2/4/13	A	N/A	Added absolute max ratings
12/21/04	0	N/A	Original release.