

SPECIFICATION FOR 2.5 x 2.0 mm HCMOS COMPATIBLE SMT OSCILLATOR MtronPTI Part Number M2500S037

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _o		13.333000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-100		+100	ppm	Initial frequency @ +25°C, deviation over operating temperature range, shock, vibration, supply voltage, output load, and 1 year aging
Output						
Output Type		HCMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T _{DC}	45	50	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	From 10% to 90% V _{DD}
Start-Up Time				10	ms	
Tristate Function		Logic (70% V _{DD} min) or floating Logic (30% V _{DD} max) to a high-Z state				Pad 1: Enables output Pad 1: Disables output
Supply Voltage & Power Consumption						
Operating Voltage	V _{DD}	3.135	3.300	3.465	V	
Operating Current	I _{DD}			8	mA	

Environmental & Mechanical Requirements:

Operating Temperature	T _A	-40		+105	°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)					
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	2.0 X 2.5 X 0.9 mm, 4-pad leadless ceramic. RoHS 6/6 compliant					

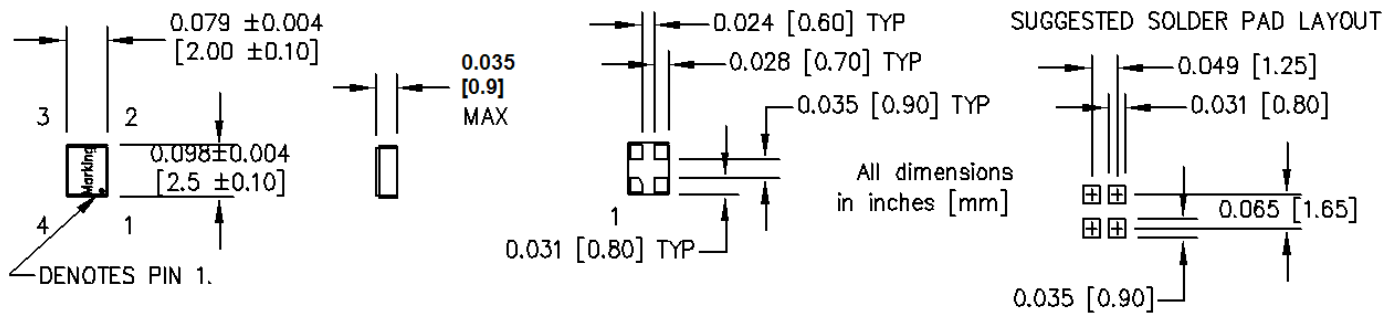
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Dimensions, Marking, and Pin Out Information:

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

Part Marking	
Line 1	13M333
Line 2	M ywwv

Legend	
y	Year
ww	Work week
v	Factory code



Note : Layout should include 0.01 μF or larger capacitor between +V_{DD} and ground.

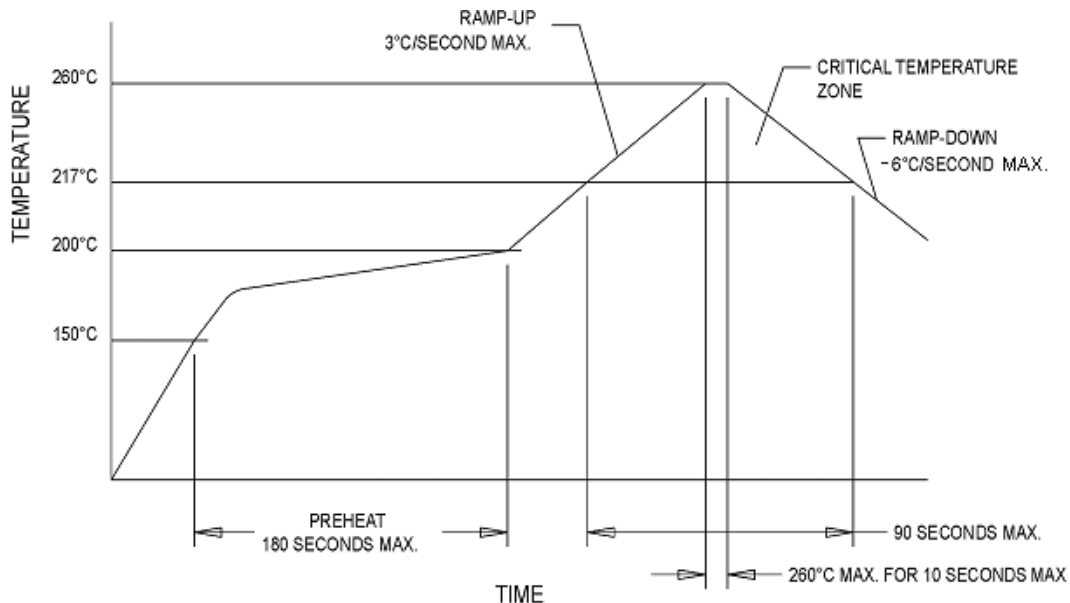


Figure 1

DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
04/15/16	0	DCO	Original Release