

1703 E. Highway 50 Yankton, SD 57078 USA Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709

Website: www.mtronpti.com



# SPECIFICATION FOR HCMOS COMPATIBLE SMT OSCILLATOR MtronPTI P/N M2061S001

### **Electrical Specifications:**

Parameter	Symbol	Min.	Тур.	Max.	Units	Conditions
Frequency of Operation	Fo		12.288000		kHz	
		F	requency Stat	oility		
Frequency Stability	ΔF/F	-50		+50	ppm	Initial frequency @ +25°C and deviation over the operating temperature range.
			Output			
Output Type		HCI	MOS/TTL Comp	oatible		
Output Load				15/2	pF/TTL	
Symmetry (duty cycle)	T <sub>DC</sub>	45	50	55	%	Ref to ½ V <sub>DD</sub>
Logic "1" Level	Vон	90% V <sub>DD</sub>			V	HCMOS load
Logic "0" Level	Vol			10% V <sub>DD</sub>	V nS	HCMOS load From 10% to 90% V <sub>DD</sub>
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>					
Start-Up Time				10	mS	
Tristate Function	Logic (70% Vdd min) or floating					Pad 1: Enables output
		Logic (30% Vdd max) to a high-Z state				Pad 1: Disables output
Supply Voltage & Power Consumption						
Operating Voltage	$V_{DD}$	3.135	3.3	3.465	V	
Operating Current	I <sub>DD</sub>			5	mA	

### **Environmental & Mechanical Requirements:**

Operating Temperature	TA	-40		+85	°C	
Storage Temperature	Ts -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	rmeticity Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm cc/s of Helium)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	4-pad 2.0 X 1.6 X 0.8 mm leadless ceramic. RoHS compliant.					



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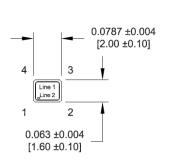
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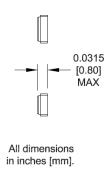
### Dimensions, Marking, and Pin Out Information:

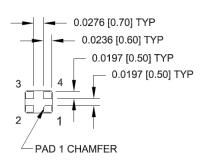
Pad	Function
1	Tristate Control
2	Circuit / Case Ground
3	Clock Signal Output
4	Supply Voltage (VDD)

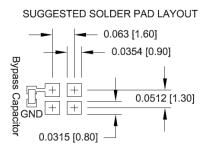
Part Marking		
Line 1	12M28	
Line 2	M (y-ww)	

ek









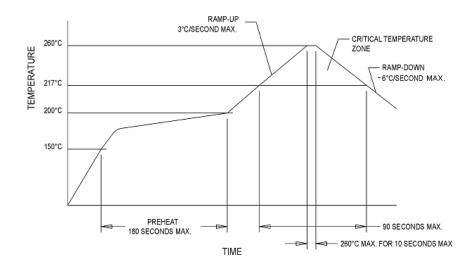


Figure 1

#### **DATA SHEET REVISION TABLE:**

	BATTA GITEET REVISION TABLET						
1	Date	Rev.	Author	Details of Revision			
1	12/11/13	0	MM	Original release.			