

## SPECIFICATION FOR SMT OSCILLATOR MtronPTI P/N M2005S107

### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>O</sub>		4.000000		MHz	
Crystal Mode of Operation		Fundamental				
Frequency Stability						
Frequency Stability	ΔF/F	-100		+100	ppm	
RF Output						
Output Type		HCMOS/TTL Compatible				
Output Load				15/10	pF/TTL	
Symmetry (duty cycle)	T <sub>DC</sub>	45	50	55	%	Ref to ½ V <sub>DD</sub> & 1.4 V
Logic “1” Level	V <sub>OH</sub>	90% V <sub>DD</sub>			V	HCMOS load
		V <sub>DD</sub> – 0.5			V	TTL Load
Logic “0” Level	V <sub>OL</sub>			10% V <sub>DD</sub>	V	HCMOS load
				0.5		TTL Load
Output Current	I <sub>OH</sub>			-8	mA	
Output Current	I <sub>OL</sub>			+8	mA	
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			6	nS	10% to 90% V <sub>DD</sub> HCMOS load 0.5 V to 2.4 V TTL load
Tri-state Function		Logic “1” or floating Logic “0”				Lead1: Output Enabled Lead1: Disables Output to Hi-Z
Supply Voltage & Power Consumption						
Operating Voltage	V <sub>DD</sub>	3.135	3.3	3.465	V	
Operating Current	I <sub>DD</sub>			35	mA	

### Environmental & Mechanical Requirements:

Operating Temperature	T <sub>A</sub>	-55		+125	°C	
Storage Temperature	T <sub>S</sub>	-55		+125	°C	
Screening/Testing	MIL-STD883, MIL-PRF-38534					
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)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	9.0 X 14.0 X 4.7 mm J-lead ceramic. Sn-Pb solder dipped leads.					

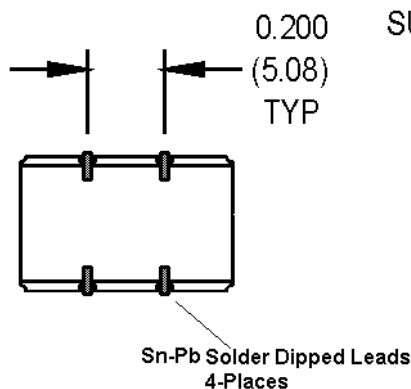
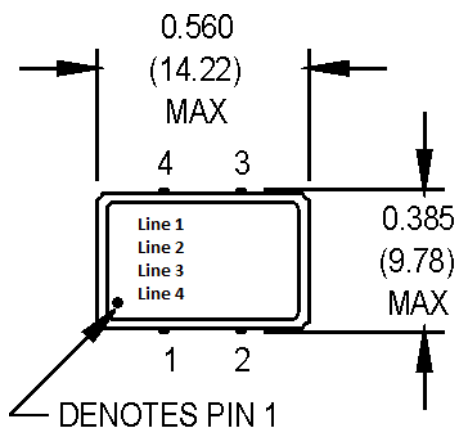
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### Dimensions, Marking, and Pin Out Information:

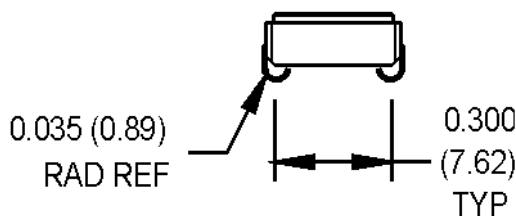
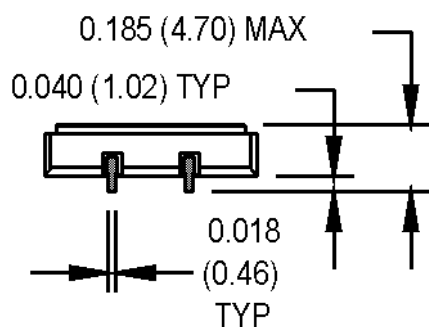
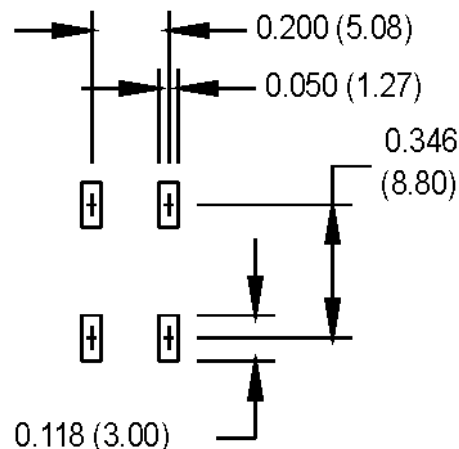
Pad	Function
1	Tri-state
2	Ground / Cover
3	Output
4	+V <sub>DD</sub>

Part Marking	
Line 1	M2005S107
Line 2	4.0000000M
Line 3	M yy ww

Legend	
yy	Year
ww	Work week



### SUGGESTED SOLDER PAD LAYOUT



All dimensions  
in inches (mm)

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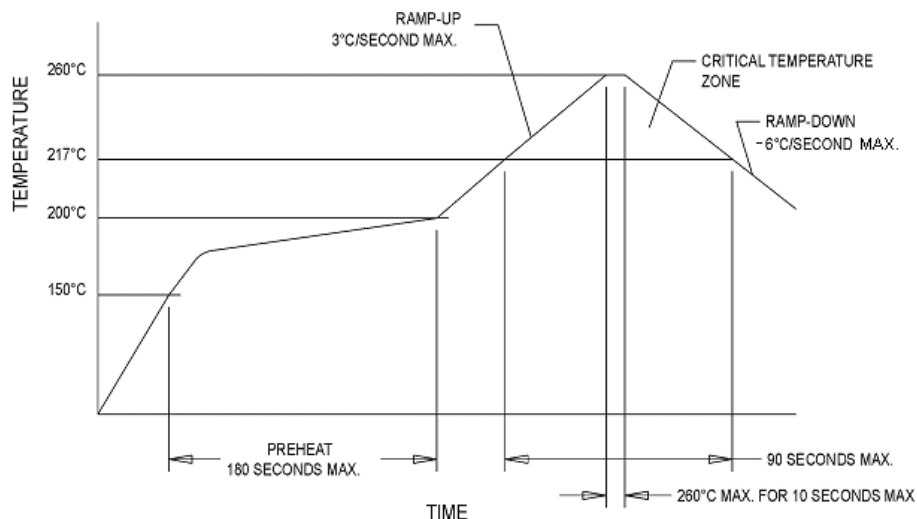


Figure 1

### Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
09/18/13	0	MM	Original release.