

## SPECIFICATION FOR HCMOS COMPATIBLE SMT OSCILLATOR

### MtronPTI P/N: M2015S128

#### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>o</sub>		50.000000		MHz	
<b>Frequency Stability</b>						
Frequency Stability	ΔF/F	-100		+100	ppm	Includes initial tolerance, deviation over temperature, voltage, load, and 1 <sup>st</sup> year aging.
Aging		-3		+3	ppm	1 <sup>st</sup> year
		-2		+2	ppm	Thereafter (per year)
<b>RF Output</b>						
Output Type		HCMOS/TTL Compatible				
Output Load				50	pF	
Symmetry (duty cycle)	T <sub>DC</sub>	40		60	%	Ref to ½ V <sub>DD</sub>
Output Logic Levels	V <sub>OH</sub>	V <sub>DD</sub> - 0.4			V	I <sub>OH</sub> = -0.4mA Max
	V <sub>OL</sub>			0.4	V	I <sub>OL</sub> = +15mA Max
Tristate Function		Logic 'High' or floating				Pin 1: Clock signal output
		Logic Low				Pin 1: Output disables to high Z
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			8	nS	From 2.4 V to 0.4 V
Start-Up Time	T <sub>STU</sub>			10	mS	
<b>Supply Voltage &amp; Power Consumption</b>						
Operating Voltage	V <sub>DD</sub>	4.5	5.0	5.5	V	
Operating Current	I <sub>DD</sub>			35	mA	

#### Environmental & Mechanical Requirements:

Operating Temperature	T <sub>A</sub>	-40		+85	°C	Part must start up and run -55°C, though frequency accuracy requirements do not apply for device temperature below -40°C.
Storage Temperature	T <sub>S</sub>	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition A					
Vibration	Per MIL-STD-202, Method 204, Condition B					
Moisture Resistance	Per MIL-STD-202, Method 106					
Altitude	50,000 feet above sea level					
Salt Spray	Per MIL-STD-202, Method 101, Condition B					
Temperature al Cycle	Per MIL-STD-202, Method 107, Condition A					
Hermeticity	Per MIL-STD-202, Method 112C, Condition C					
Solderability	Per MIL-STD-202, Method 208D					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	9 X 14 mm 4-J lead ceramic. Gold flash leads.					

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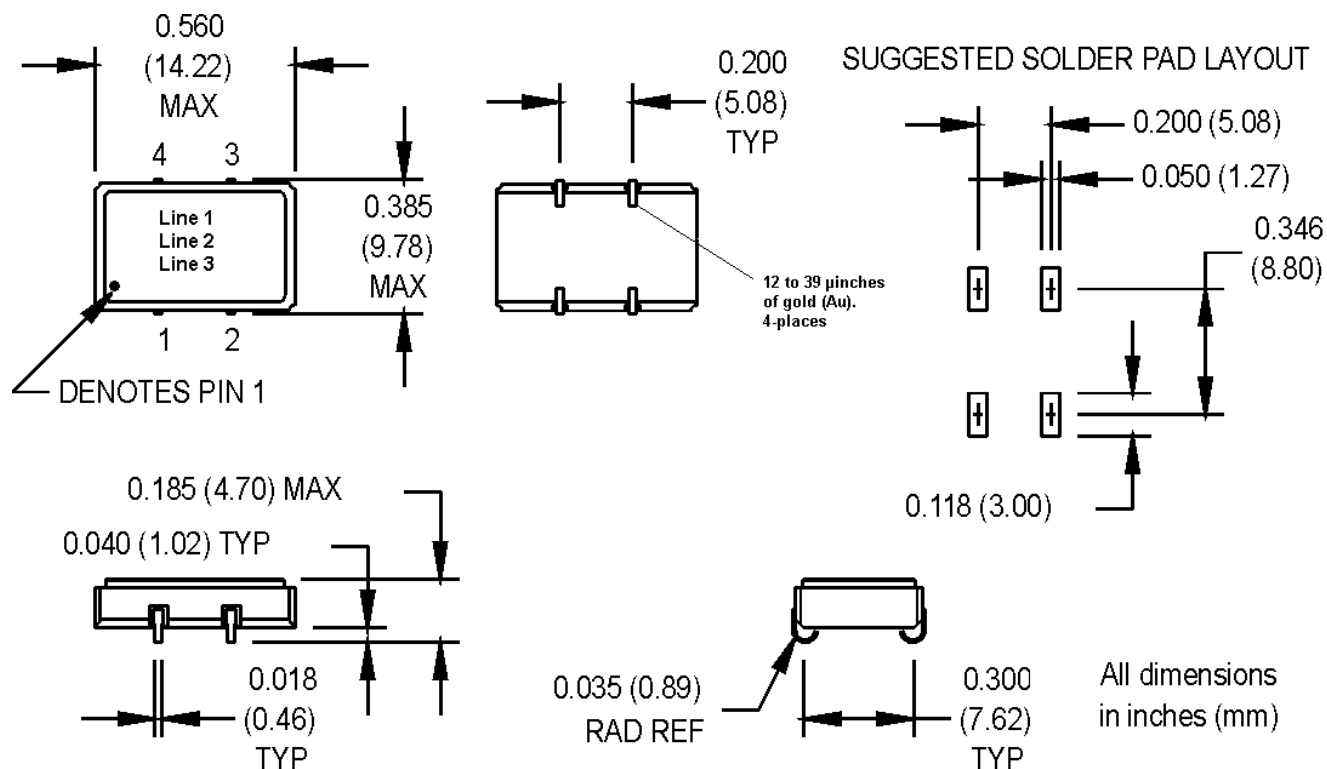
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#### Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tristate
2	Ground
3	Output
4	+V <sub>DD</sub>

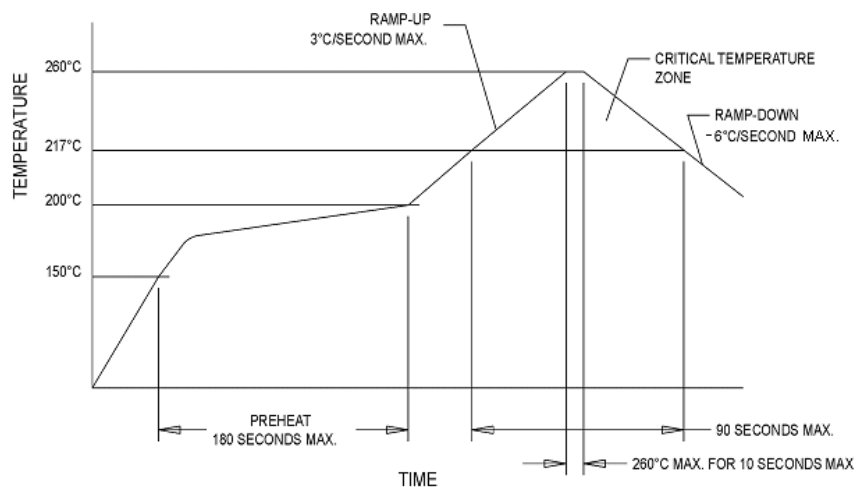
Part Marking	
Line 1	M2015S128
Line 2	50M0000
Line 3	M yyww

Legend	
yy	Year
ww	Work week



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**Figure 1**

#### Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
12/04/18	0	MM	Original release (M2907S001 Replacement)