MtronPTI ...when timing matters

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 EXTENDED TEMPERATURE SMT OSCILLATOR
MtronPTI P/N M2002T115

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		25.000000		MHz	
Frequency Stability	ΔF/F	-100		+100	ppm	Inclusive of initial tolerance at +25°C, deviation over temperature, variations due to shock, vibration, load, voltage and 1st year aging at +25°C.
Operating Temperature	T_A	-55		+125	°C	
Storage Temperature	T_S	-55		+125	°C	
Operating Voltage	V_{dd}	3.135	3.3	3.465	V	
Operating Current	I_{dd}			35	mA	
Output Type		HCMOS/TTL Compatible				
Output Load				15/10	pF/TTL	
Symmetry		45		55	%	Ref. to ½ V_{dd}
Logic "1" Level	V_{OH}	90% V_{DD}			V	
Logic "0" Level	V_{OL}			10% V_{DD}	V	
Output Current	I_{OH}			-8	mA	
	I_{OL}			+8	mA	
Rise/Fall Time				3	nS	10% to 90% Waveform
Tri-State Function		80% V_{DD} or N/C			V	Pad 1: Output Enabled
				20% V_{DD}	V	Pad 1: Output Disabled to high-Z
Start-Up Time				5	mS	
Random Jitter			5	12	pS	1-Sigma

Environmental & Mechanical Requirements:

Mechanical Shock	Per MIL-STD-202, Method 213, Condition C
Vibration	Per MIL-STD-202, Method 201 & 204
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10^{-8} atm cc/s of Helium)
Thermal Cycle	Per MIL-STD-883, Method 1010, Condition B
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	4-pad 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant.

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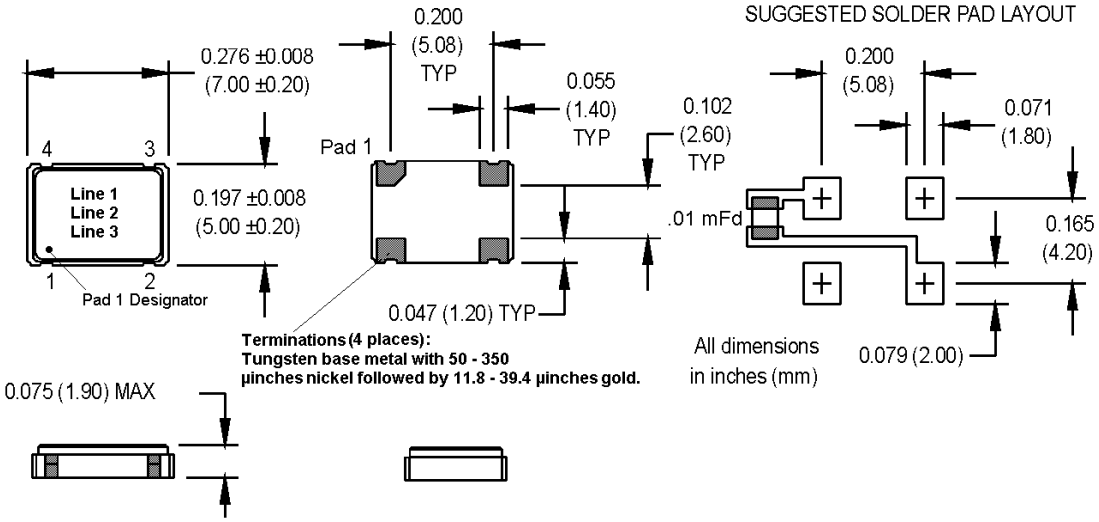
Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tristate
2	Ground
3	Output
4	$+V_{DD}$

Part Marking	
Line 1	M2002T115
Line 2	25M0000
Line 3	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code



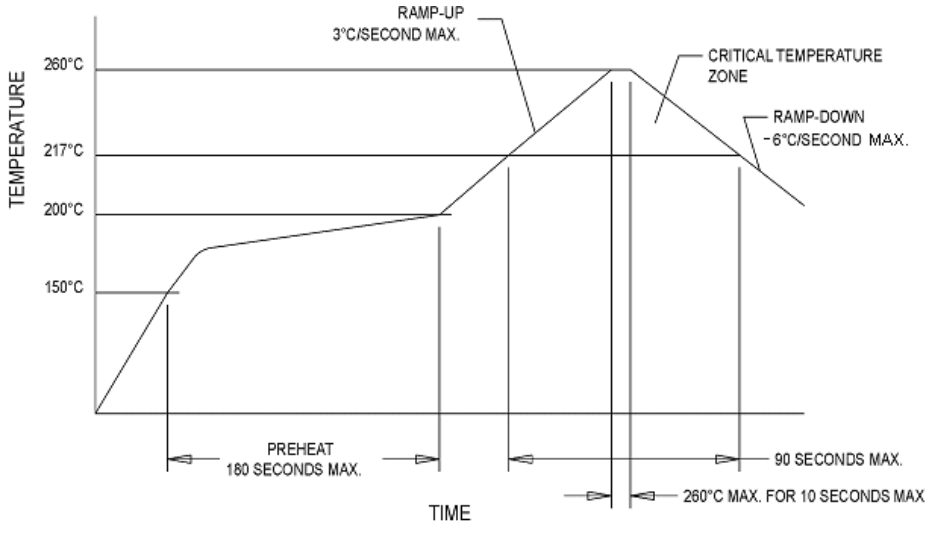


Figure 1

DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
5/16/12	0	LEO	Original release.
7/31/12	A	MM	Updated symmetry, rise/fall time and startup time specifications.