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 1.8 V CMOS COMPATIBLE GULL-WING SMT OSCILLATOR
MtronPTI P/N: M6302S010

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		25.000000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-20		+20	ppm	Inclusive of initial tolerance, deviation over temperature, shock, vibration, voltage, load, and aging
RF Output						
Output Type		HCMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T_{DC}	40		60	%	Ref. to ½ V_{DD}
Logic "1" Level	V_{OH}	80% V_{DD}			V	HCMOS load
Logic "0" Level	V_{OL}			20% V_{DD}	V	HCMOS load
Rise/Fall Time	T_R/T_F			6	ns	From 20% to 80% V_{DD}
Tri-state Enable Logic		80% V_{DD} or N/C			V	Pad 1: Clock Signal Output
Tri-state Disable Logic				20% V_{DD}	V	Pad 1: Output to high-Z
Start-Up Time				10	ms	
Supply Voltage & Power Consumption						
Operating Voltage	V_{DD}	1.62	1.8	1.98	V	
Operating Current	I_{DD}		70	90	mA	

Environmental Conditions:

Operating Temperature	T_A	-40		+125	°C	
Storage Temperature	T_S	-55		+125	°C	
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, Condition B					
Hermeticity	Per MIL-STD-202, Method 112 (1×10^{-8} atm cc/s of helium)					
Lead Material	The gull-wing lead material shall be an oxygen-free copper.					
Final Lead Finish	The final lead finish shall be hot solder dipped in Sn63Pb37 solder.					

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Mechanical, Marking and Layout Information:

Pad	Function
1	Tri-state
2	Ground
3	Output
4	$+V_{DD}$

Part Marking	
Line 1	M6302S010
Line 2	25M0000
Line 3	M yyww

Legend	
yy	Year
ww	Work week

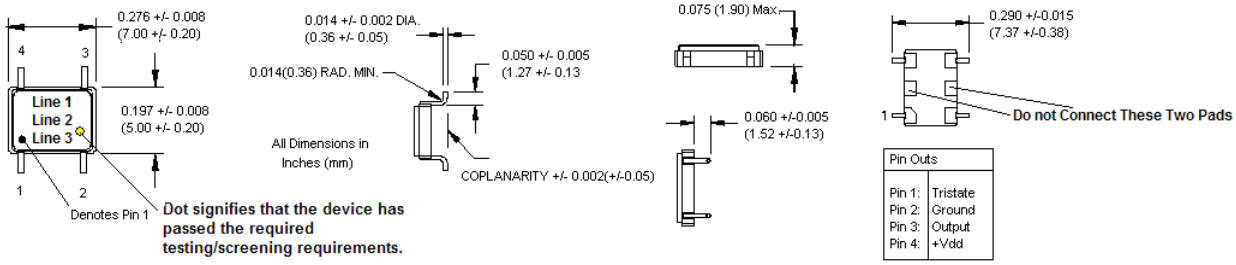
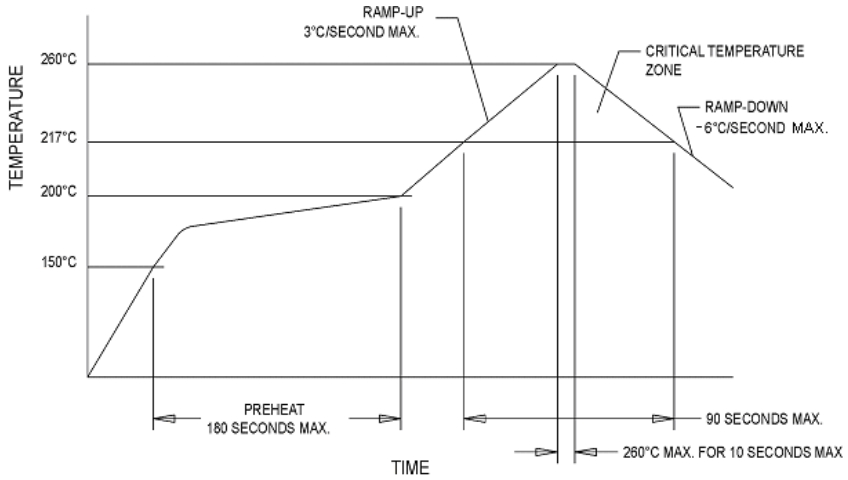


Figure 1



Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
8/28/17	0	MM	Original release.
9/14/17	A	MM	Updated RT/FT spec from 8ns to 6ns.
10/31/18	B	MM	Added start-up time.