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 RoHS 6 COMPLIANT HCMOS SMT OSCILLATOR
MtronPTI P/N M2700S005

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		30.000000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-100		+100	ppm	Includes initial accuracy @ +25°C and deviation over operating temperature range.
Aging		-3.0		+3.0	ppm	1st year
		-2.0		+2.0		Thereafter (per year)
RF Output						
Output Type		HCMOS/TTL Compatible				
Output Load				15/2	pF/TTL	
Symmetry (duty cycle)	T_{DC}	45	50	55	%	Ref to ½ V_{DD}
Logic "1" Level	V_{OH}	90% V_{DD}			V	HCMOS load
		V_{DD} – 0.5			V	TTL Load
Logic "0" Level	V_{OL}			10% V_{DD}	V	HCMOS load
				0.5		TTL Load
Rise/Fall Time	T_R/T_F			6	nS	10% to 90% V_{DD} HCMOS load 0.5 V to 2.4 V TTL load
Tri-State Function		Logic "1" Logic "0" or Open				Pad 1: Enables Output Pad 1: Disables Output to a High-Z
Start-Up Time				10	mS	
Additional Specifications						
Random Jitter			4	10	pS RMS	1-Sigma
Supply Voltage & Power Consumption						
Operating Voltage	V_{DD}	3.0	3.3	3.6	V	
Operating Current	I_{DD}			25	mA	

Environmental & Mechanical Requirements:

Operating Temperature	T_A	-55		+125	°C	
Storage Temperature	T_S	-55		+125	°C	
Mechanical Shock	Per JESD22-B-104-A 1500g Peak 0.5 msec duration 5 pulses in 6 directions					
Vibration	Per JESD22-B-103-A 20g Peak (20-2000 Hz) in X, Y and Z directions					
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10^{-8} atm cc/s of Helium)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	6-pad 5 X 7 X 1.9 mm leadless ceramic. (M2700 type)					

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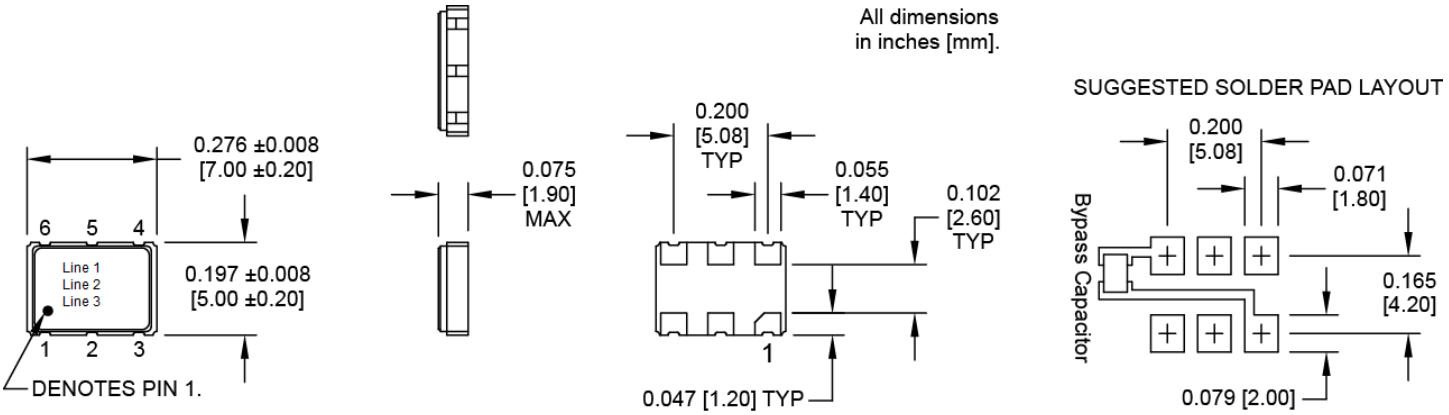
Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tristate
2	N/C
3	Ground
4	Output
5	N/C
6	$+V_{DD}$

Part Marking	
Line 1	M2700S005
Line 2	30M0000
Line 3	M yy ww

Legend	
yy	Year
ww	Work week



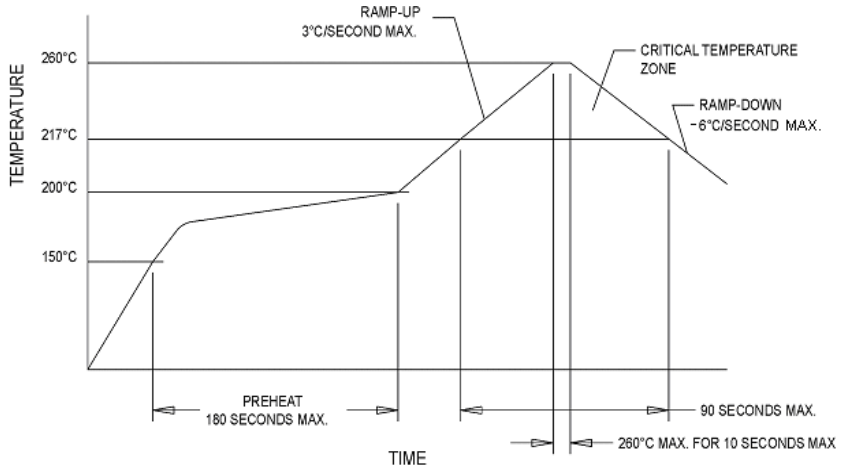


Figure 1

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
05/12/14	0	MM	Original release.

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