

SPECIFICATION FOR HCMOS/TTL COMPATIBLE SMT OSCILLATOR MtronPTI P/N M2700S006

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _O		25.000000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-50		+50	ppm	
vs. Aging		-3		+3	ppm	1 st year
		-2		+2		Thereafter (per year)
RF Output						
Output Type		HCMOS Compatible				
Output Load				15/2	pF/TTL	
Symmetry (Duty Cycle)	t _{DC}	45		55	%	Ref to ½ V _{DD}
Logic “1” Level	V _{OH}	90			% V _{DD}	HCMOS load
		V _{DD} – 0.5			V	TTL Load
Logic “0” Level	V _{OL}			10	% V _{DD}	HCMOS load
				0.5		TTL Load
Output Current			±24		mA	
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
Tristate Function		Input Logic “1” or floating Input Logic “0”				Pad 1: Enables Output Pad 1: Disables Output to a High-Z
Start-Up Time				10	mS	
Additional Specifications						
Random Jitter	R _J		4	10	ps RMS	1-Sigma
Supply Voltage & Power Consumption						
Input Voltage	V _{DD}	3.0	3.3	3.6	V	
Input Current	I _{DD}			35	mA	
Other						
Operating Temperature	T _A	-40		+125	°C	
Storage Temperature	T _S	-55		+125	°C	

Environmental & Mechanical Requirements:

Mechanical Shock	Per JESD22-B-104-A 1500 g Peak, 0.5 ms duration, 5 pulses in 6 directions
Vibration	Per JESD22-B-103-A 20 g Peak (20 Hz to 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)
Fine Leak Test	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)
Gross Leak Test	Per MIL-STD-202, Method 112 (30 second immersion)
ESD-Human Body Model	1000 volts; Per JESD22A-114-A
ESD-Machine Model	200 volts; Per JESD22A-115-A
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	6-pad 5 mm x 7 mm leadless ceramic.
Highly Accelerated Stress Testing (HASS)	Vibration over the temperature of -55 °C to 105 °C: To be performed by the customer.

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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	M2700S006
Line 2	25M0000
Line 3	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code

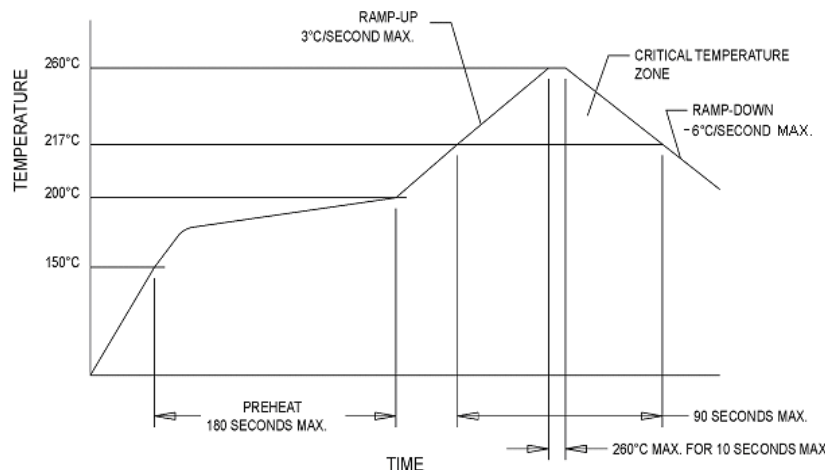
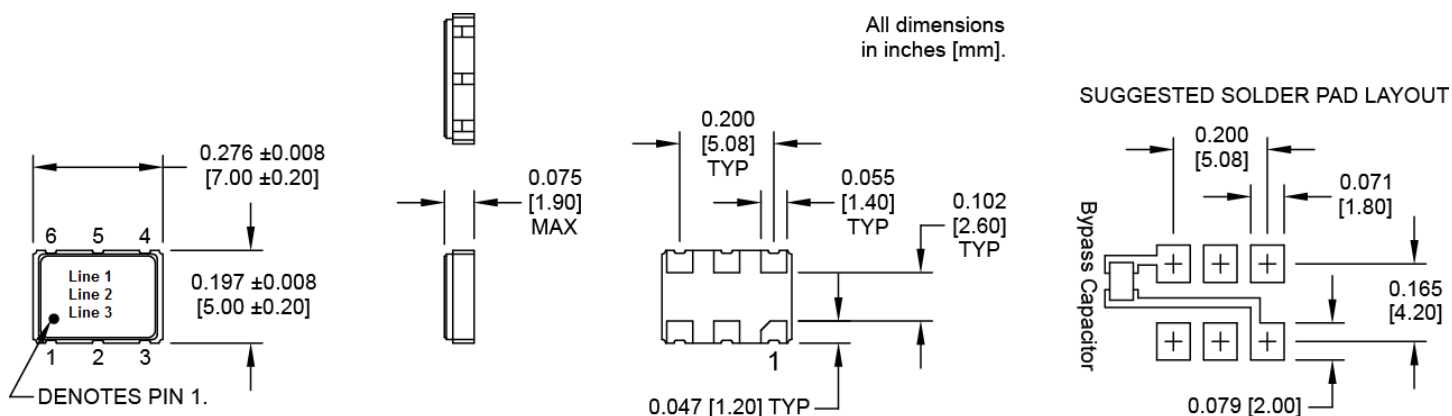


Figure 1

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
12/12/14	0	MM	Original release.
01/13/15	A	MM	Added Output Current specification.