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 3.2x2.5mm 3.3V LVDS SMT OSCILLATOR
MtronPTI P/N: M2065S007

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		156.250000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-25		+25	ppm	including calibration tolerance at +25C and deviation over operating temperature range
RF Output						
Output Type		LVDS Compatible				
Output Load		100 ohms between the two outputs				
Symmetry (duty cycle)	T_{DC}	45		55	%	@ 50% of waveform
Differential Output Voltage		247	350	454	mV	peak-to-peak differential output voltage
Output Offset Voltage		1.125	1.250	1.375	V	
Logic Level "1"			1.430	1.600	V	
Logic Level "0"		0.900	1.100		V	
Rise/Fall Time	T_R/T_F			1.0	ns	From 20% to 80% of differential waveform
Start-Up Time			5	10	ms	
Output Enable/Disable Function Pad 1		70% Vcc min. or no connection: outputs enabled				Pad 1
		30% Vcc max.: outputs disabled				Pad 1
Supply Voltage & Power Consumption						
Operating Voltage	V_{CC}	3.135	3.300	3.465	V	
Operating Current	I_{CC}			50	mA	
Other Parameters						
Phase Jitter				0.3	ps	Integrated phase noise, 12 kHz – 20 MHz

Environmental & Package Specifications:

Operating Temperature	T_A	-40		+85	°C	
Operating Temperature	T_S	-55		+125	°C	
Storage Temperature	-55 to +125 °C					
Mechanical 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, 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	2.50 mm (typ) X 3.20 mm (typ) X 1.10 (max) mm 6-pad leadless ceramic. RoHS compliant.					

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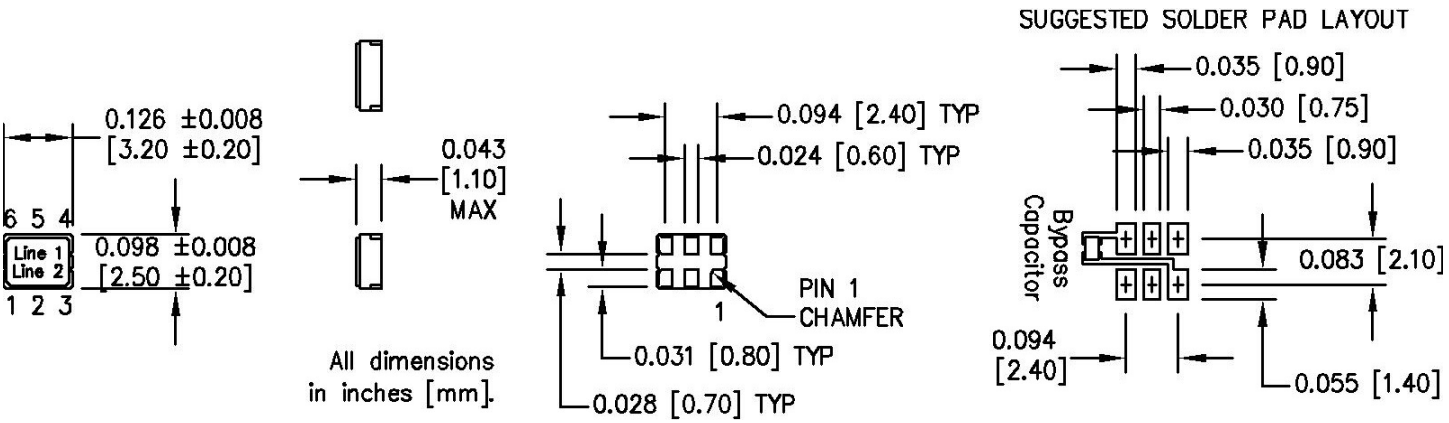
Marking and Pin Out:

Pad	Function
1	Enable Control
2	No Connection
3	Ground
4	Output 1 (Q)
5	Output 2 (Q-bar)
6	$+V_{DD}$

Part Marking	
Line 1	156M2500
Line 2	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code

Dimensions:



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Reflow Soldering Conditions:

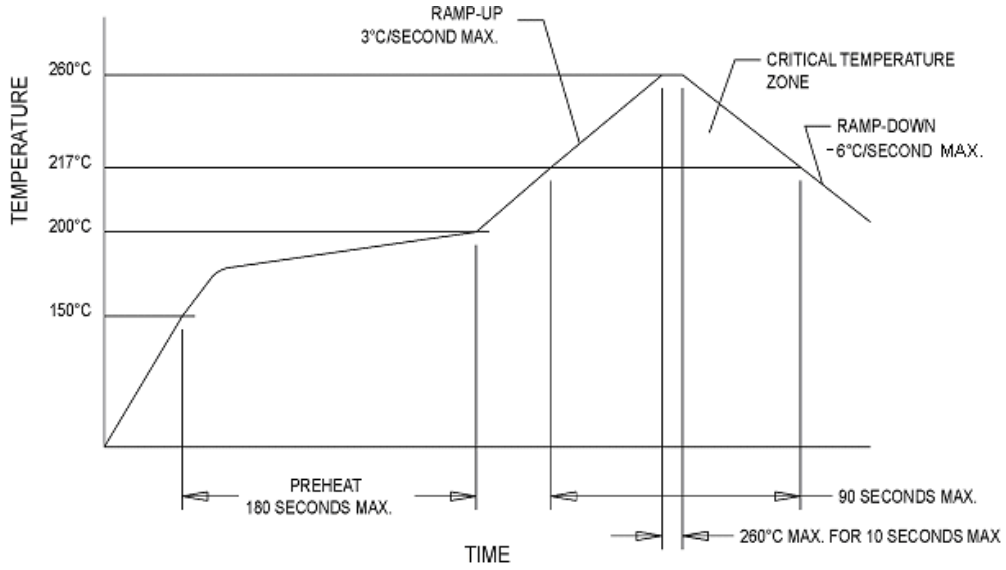

Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
09/15/17	0	DCO	Original release