



SPECIFICATION FOR RoHS 6 COMPLIANT LVPECL SMT OSCILLATOR

MtronPTI P/N: M2101S034

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _O		160.937500		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-50		+50	ppm	Inclusive of initial tolerance, deviation over temperature, supply voltage and IR reflow.
Aging		-3		+3	ppm	1 st year
		-2		+2	ppm	Thereafter (per year)
RF Output						
Output Type		LVPECL Compatible				
Output Load		50 Ω to (V _{CC} -2) VDC			V	
Symmetry (duty cycle)	T _{DC}	45	50	55	%	Ref. to 50% of waveform
Logic Level "1"		V _{CC} -1.02			V	
Logic Level "0"				V _{CC} -1.63	V	
Rise/Fall Time	T _R /T _F			0.55	nS	From 20% to 80% V _{CC}
Start-up Time	T _{SU}			10	mS	
Supply Voltage & Power Consumption						
Operating Voltage	V _{CC}	2.375	2.5	2.625	V	
Operating Current	I _{CC}			125	mA	
Other Parameters						
Phase Jitter (RMS)	Φ _J		0.3		pS	12KHz to 20MHz
Phase Noise			-65		dBc/Hz	@ 10 kHz Offset
			-99		dBc/Hz	@ 100 kHz Offset
			-145		dBc/Hz	@ 1 MHz Offset
			-153		dBc/Hz	@ 10 MHz Offset
			-153		dBc/Hz	@ 20 MHz Offset

Environmental & Packaging Requirements:

Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+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	6-pad 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant.					

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Dimensions, Marking, Pin Out:

Pad	Function
1	N/C
2	N/C
3	Ground
4	Output
5	Complimentary Output
6	+V _{CC}

Part Marking	
Line 1	M2101S034
Line 2	160M9375
Line 3	MPTI yyww

Legend	
yy	Year
ww	Work Week

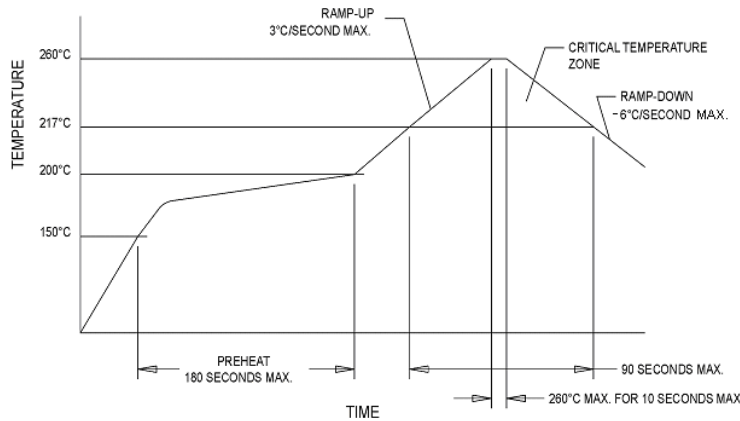
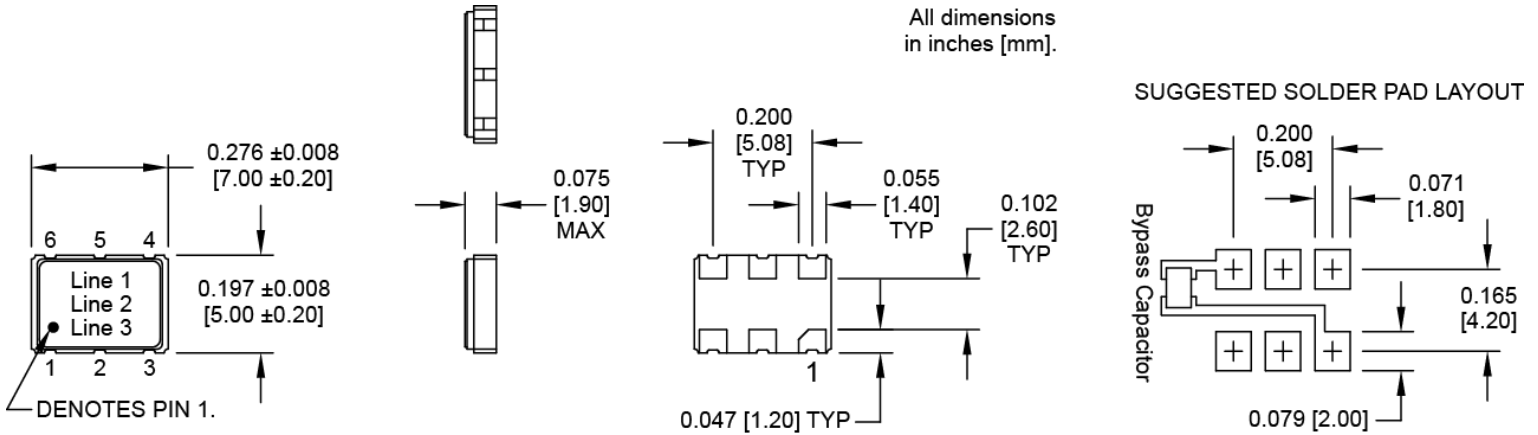


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
1/9/14	0	MM	Original release.