

SPECIFICATION FOR LVPECL SMT OSCILLATOR

MtronPTI P/N: M2060S031

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_o		156.250000		MHz	
Frequency Stability						
Frequency Stability	$\Delta F/F$	-20		+20	ppm	Includes calibration tolerance and deviation over operating temperature range
Aging		-5		+5	ppm	1 st year
RF Output						
Output Type		LVPECL Compatible				
Output Load		50 Ω to $(V_{CC}-2.0) V_{DC}$			V	
Symmetry (duty cycle)	V_{OH}	45		55	%	Ref. to 50% of waveform
Logic Level "1"	V_{OH}	$V_{CC}-1.025$		$V_{CC}-0.880$	V	
Logic Level "0"	T_{DC}	$V_{CC}-1.810$		$V_{CC}-1.620$	V	
Rise/Fall Time	T_R/T_F			0.4	ns	20% to 80% of waveform
Start-up Time	T_{SU}			10	ms	$T_{ambient} = +25^\circ C$
Enable Logic		70% V_{CC} or N/C			V	Pad 1: Output Enabled
Disable Logic				30% V_{CC}	V	Pad 1: Output Disabled to high-Z
Supply Voltage & Power Consumption						
Operating Voltage	V_{CC}	3.135	3.3	3.465	V	
Supply Current	I_{CC}			65	mA	
Other Parameters						
Phase Jitter (RMS)	Φ_J			0.150	ps	12 kHz to 20 MHz

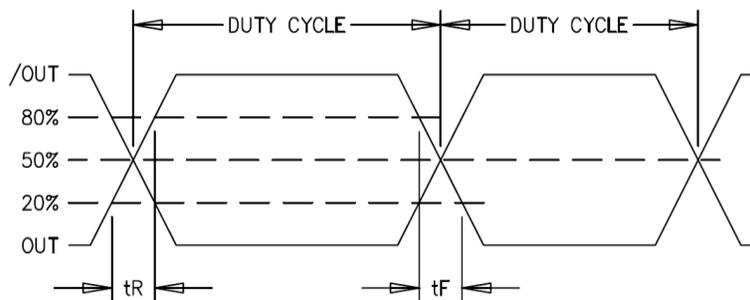
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Environmental & Packaging Requirements:

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)					
Moisture Sensitivity Level (MSL)	MSL 1					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	3.20 mm (typ) X 5.00 mm (typ) X 1.40 (max) mm 6-pad leadless ceramic. RoHS compliant.					

Output Waveform:



Marking, Pin Out:

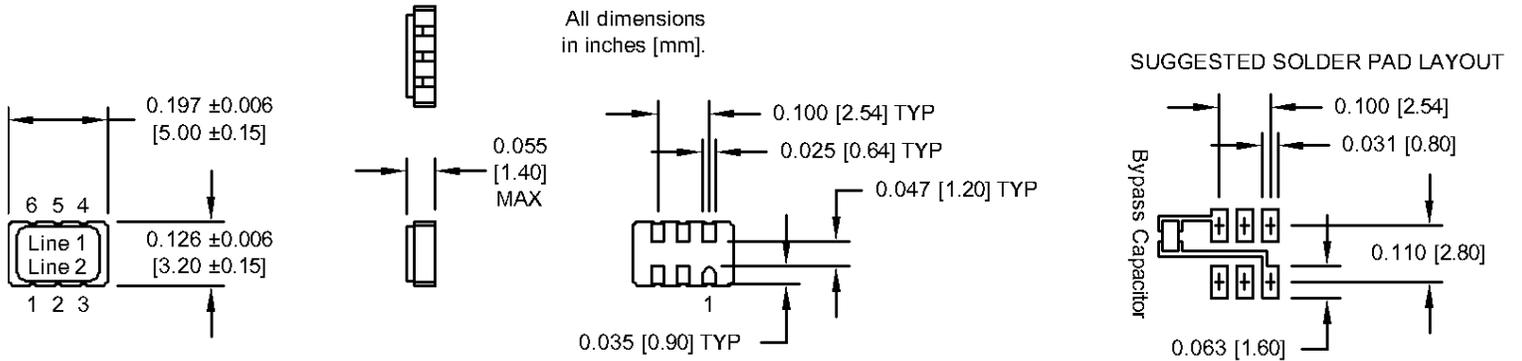
Pad	Function
1	Enable/Disable
2	N/C
3	Ground
4	Output
5	Complementary Output
6	+V _{CC}

Part Marking	
Line 1	156M250
Line 2	M yywwvv

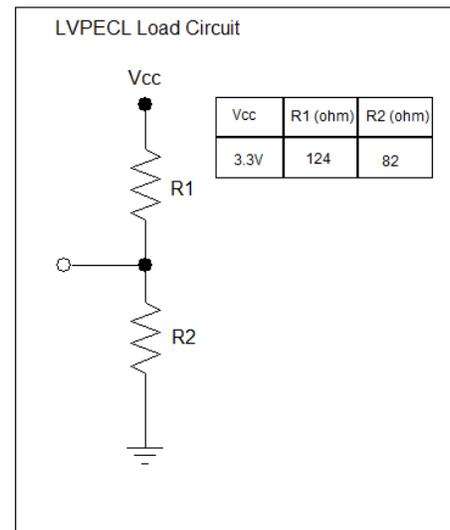
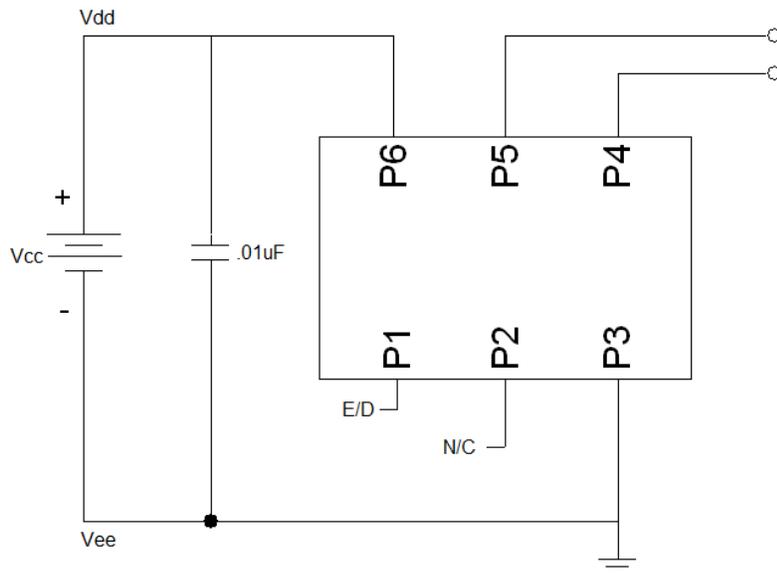
Legend	
yy	Year
ww	Work Week
vv	Factory Code

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Dimensions:



Typical Test Circuit & Load Circuit Diagrams:



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Soldering Conditions:

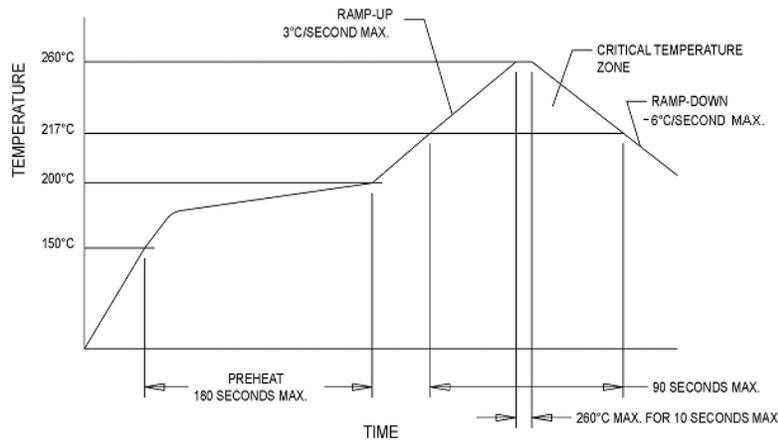


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
06/21/18	0	DCO	Original release
06/29/18	A	MM	Updated Phase jitter specification.