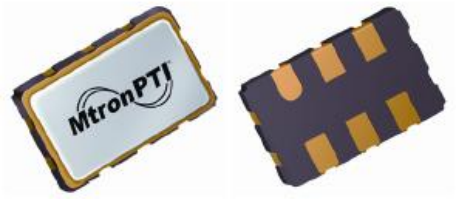

MtronPTI
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RoHS Compliant

SPECIFICATION FOR 3.2x5.0mm LVPECL SMT OSCILLATOR
MtronPTI P/N: M2060S020

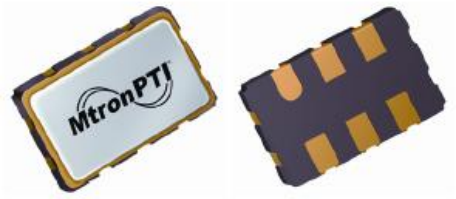
Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		156.250000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-50		+50	ppm	Includes initial tolerance @ +25°C, deviation over operating temperature, variations to supply voltage, load, vibration and shock.
Aging		-5		+5	ppm	1st year
RF Output						
Output Type		LVPECL Compatible				
Output Load		50 Ω to (Vcc-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		0.2	0.4	nS	20% to 80% of waveform
Start-up Time	T_{SU}			10	mS	$T_{ambient}$ = +25°C
Enable Logic		80% V_{CC} or N/C			V	Pad 1: Output Enabled
Disable Logic				20% 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}			57	mA	
Other Parameters						
Phase Jitter (RMS)	ΦJ			0.100	pS	12KHz to 20MHz

Enable/Disable Function:

Pad 1	Output Pad #4, #5
High or Open	
0.7V_{CC} Min	Output Enabled
0.3 V_{CC} Max	Output Disabled to high-Z

Enable Phase Delay = 2.0 mSec Max
Disable Phase Delay = 200 nSec Max



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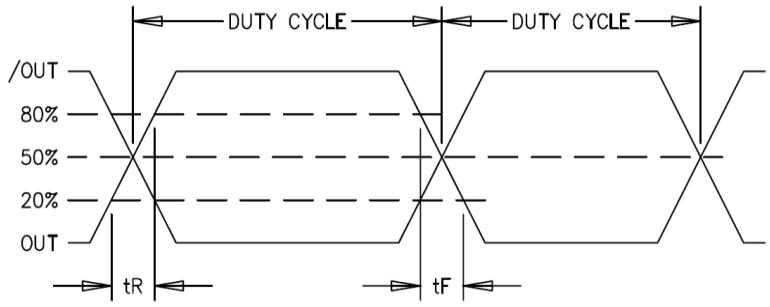
MtronPTI P/N: M2060S020

Output Waveform:



Environmental & Packaging Requirements:

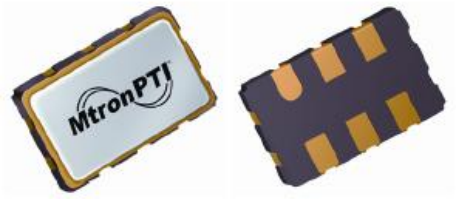
Operating Temperature	T_A	-40		+85	°C	
Storage Temperature	T_S	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C 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	6-pad 3.2 X 5.0 X 1.4 mm leadless ceramic. RoHS compliant.					

Marking, Pin Out:

Pad	Function
1	Enable/Disable
2	N/C
3	Ground
4	Output
5	Complimentary Output
6	$+V_{CC}$

Part Marking	
Line 1	156M250
Line 2	M (yy ww vv)

Legend	
yy	Year
ww	Work Week
vv	Factory code



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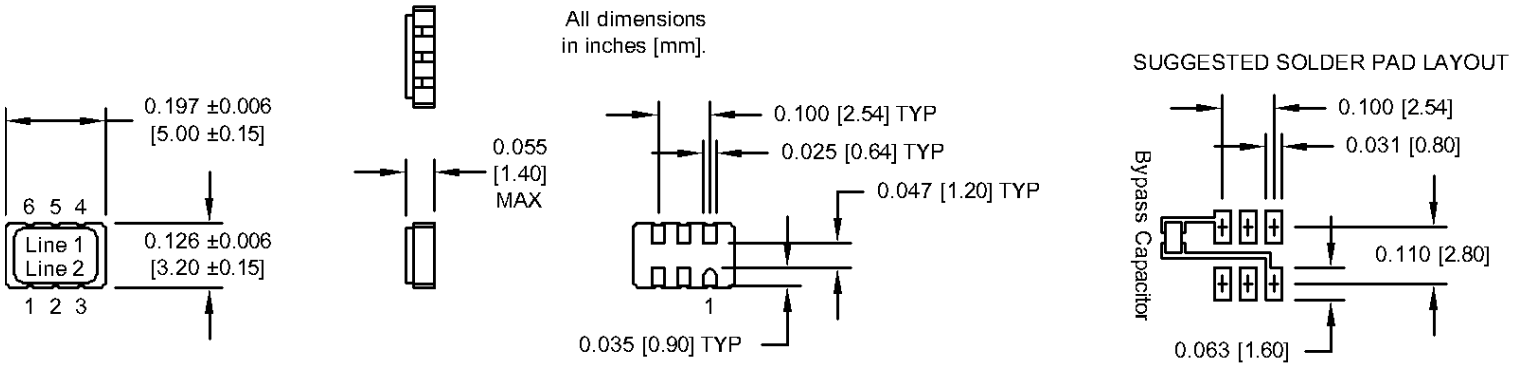
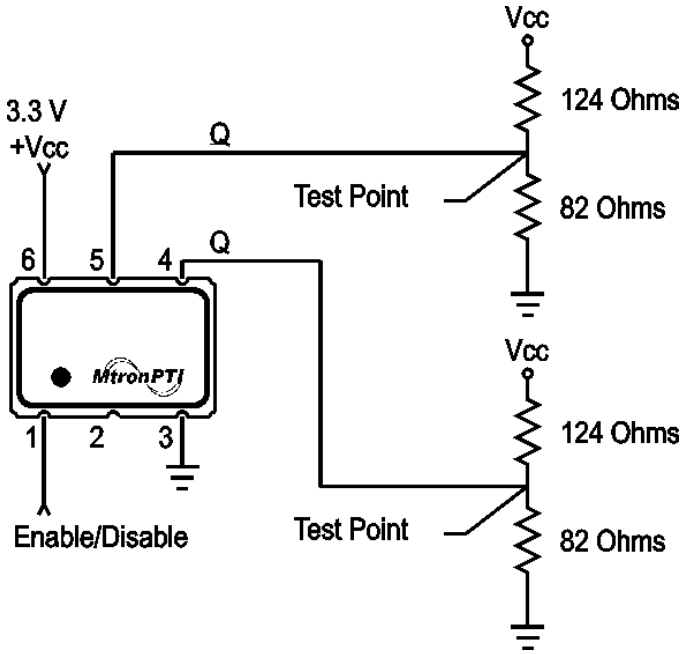
MtronPTI P/N: M2060S020

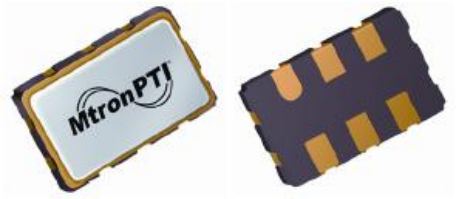
Dimensions:



Typical Test Circuit & Load Circuit Diagrams:



Soldering Conditions:



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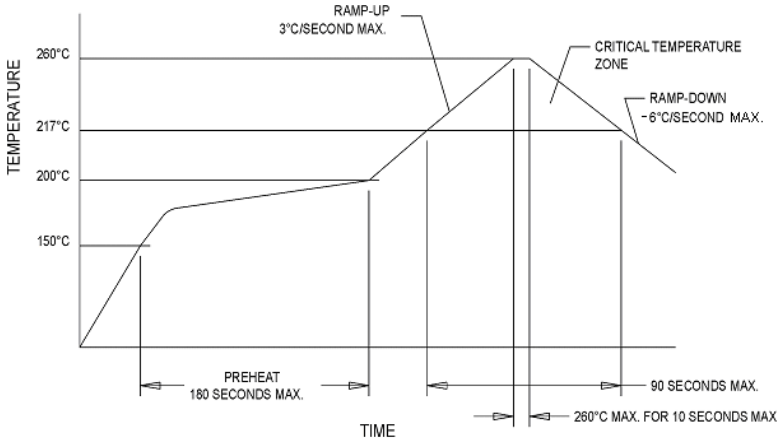
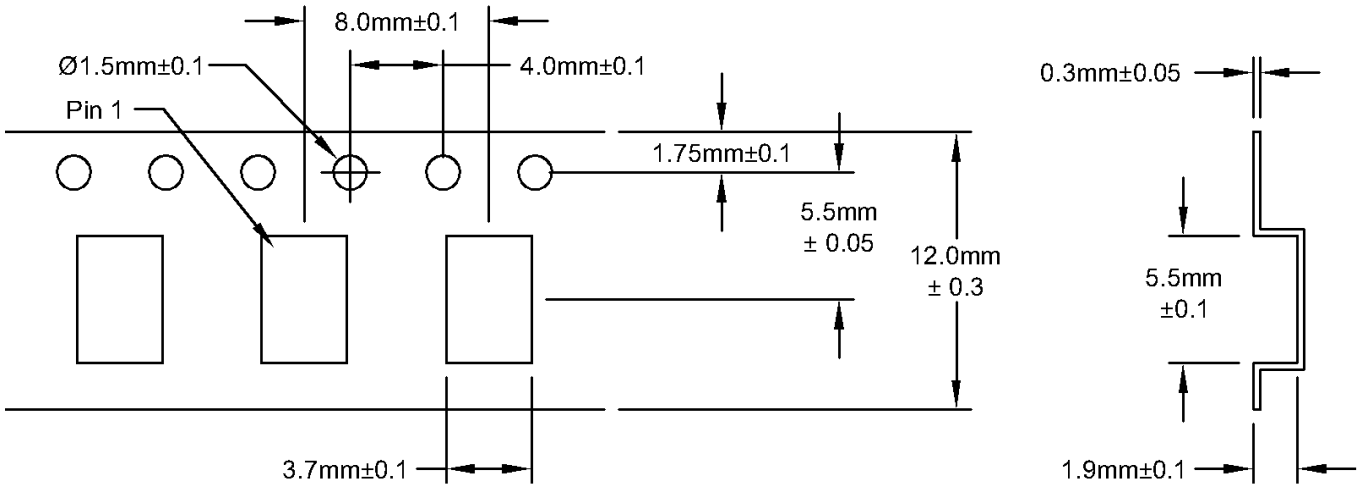


Figure 1

Tape and Reel Specifications:



Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
03/10/15	0	MM	Original release.