



SPECIFICATION FOR 2.5x3.2mm LVDS SMT OSCILLATOR MtronPTI P/N: M2065S020

Electrical Specifications:

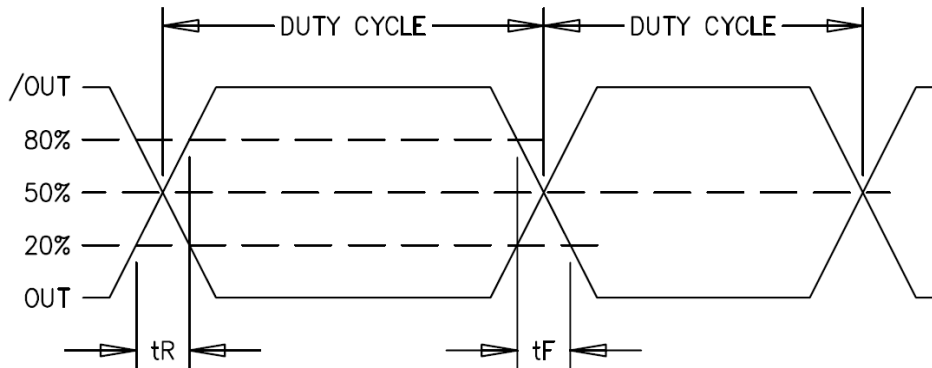
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _O		100.000000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-25		+25	ppm	Includes calibration at +25°C plus deviation vs. temperature.
Aging		-3		+3	ppm	1 st year
RF Output						
Output Type		LVDS Compatible				
Output Load		100 Ω between outputs				
Symmetry (duty cycle)	V _{OH}	45		55	%	Ref. to 50% of waveform
Differential Output Voltage	V _{DIFF}	250		450	mV	peak-to-peak differential output voltage
Rise/Fall Time	T _R /T _F			0.5	ns	20% to 80% of waveform
Start-up Time	T _{SU}			10	ms	T _{ambient} = +25°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}	3.13	3.30	3.47	V	
Supply Current	I _{CC}			40	mA	
Other Parameters						
Phase Jitter (RMS)	Φ _J			0.5	ps	12KHz to 20MHz

Environmental Requirements:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
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	2.50 mm (typ) X 3.20 mm (typ) X 1.10 (max) mm 6-pad leadless ceramic. RoHS compliant.					

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Output Waveform:



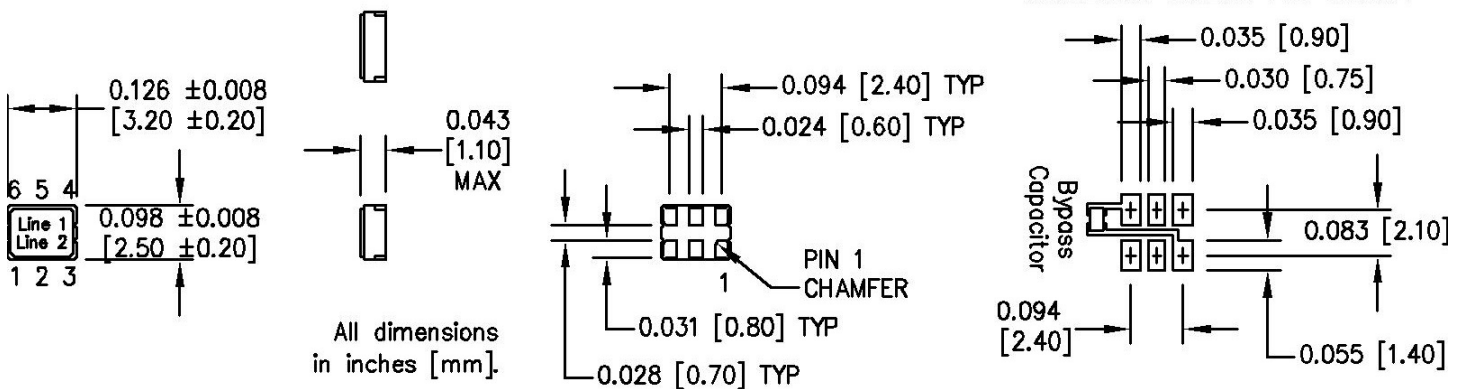
Marking and Pin Out:

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

Part Marking	
Line 1	100M0000
Line 2	M yy ww vv

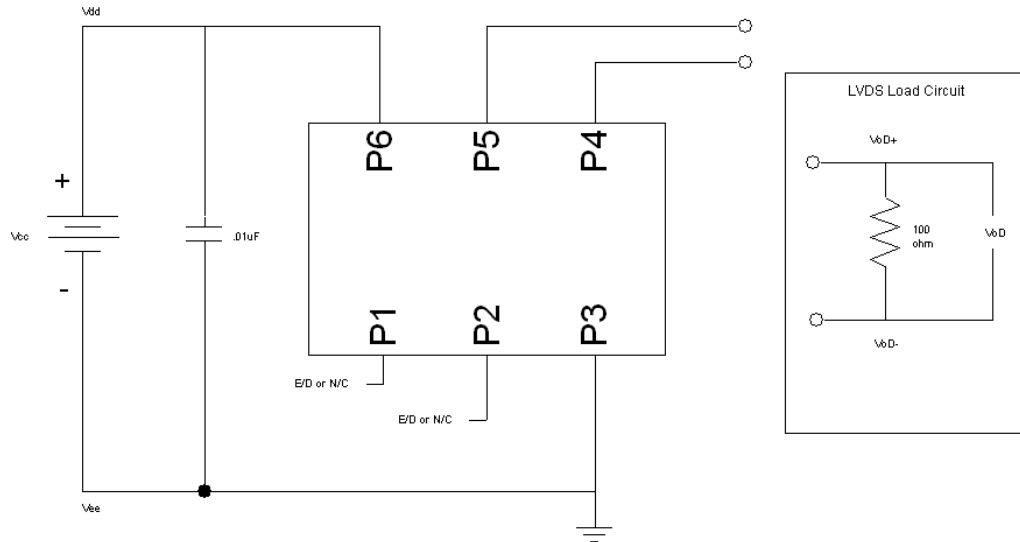
Legend	
yy	Year
ww	Work week
vv	Factory code

Dimensions:

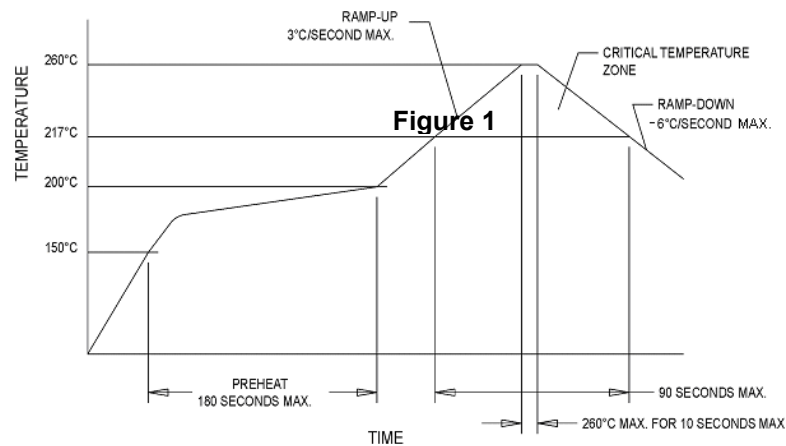


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Typical Test Circuit & Load Circuit Diagrams:



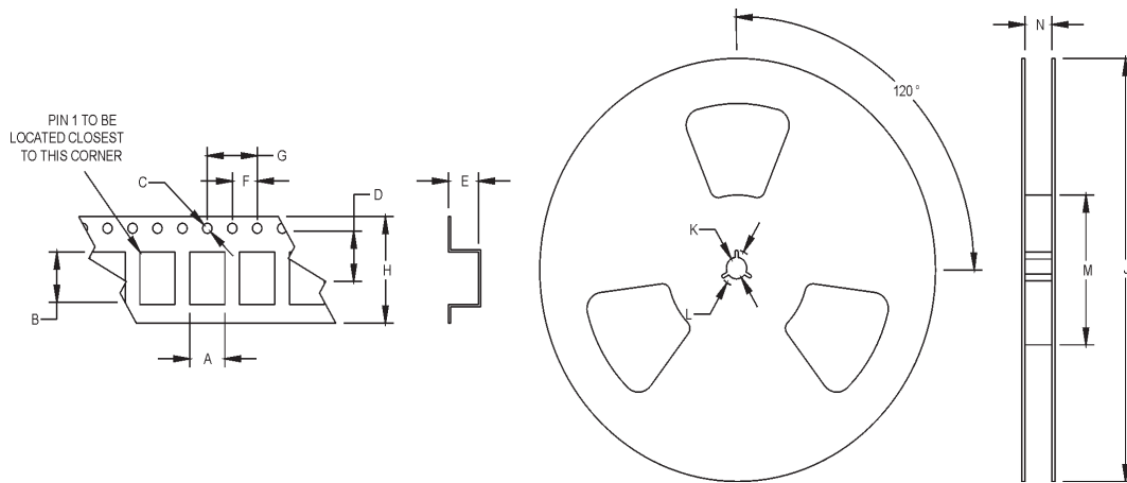
Soldering Conditions:



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Tape and Reel Specifications:

All units in mm



Tape and Reel Dimensions											
A	B	C	D	E	F	G	H	J	K	L	M
2.79	3.56	1.5	3.5	1.25	4	4	8	178	13.5	24.8	80

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
08-03-20	A	MM	Original release.