



SPECIFICATION FOR 5x7mm LVPECL SMT OSCILLATOR

MtronPTI P/N: M2702S001

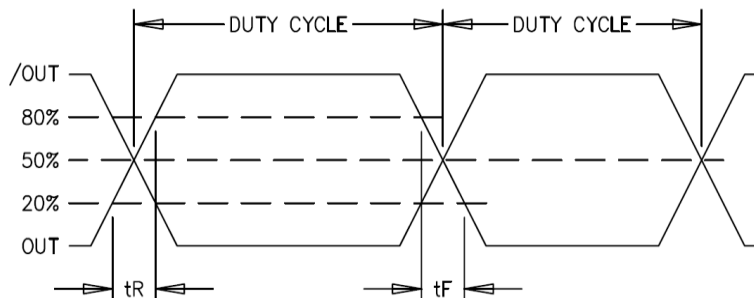
Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_o		156.253906		MHz	
Frequency Stability						
Frequency Stability	$\Delta F/F$	-25		+25	ppm	Inclusive of initial tolerance, deviation over temperature, supply voltage, reflow soldering, shock, vibration, and 5 year aging at +40 °C mean temperature.
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	
Logic Level "0"	T _{DC}			V _{CC} -1.620	V	
Rise/Fall Time	T _R /T _F			0.6	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}	3.135	3.3	3.465	V	
Supply Current	I _{CC}			90	mA	
Other Parameters						
Phase Jitter (RMS)	ΦJ			1.0	pS	12 KHz to 20 MHz



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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 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant.					

Marking, Pin Out:

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

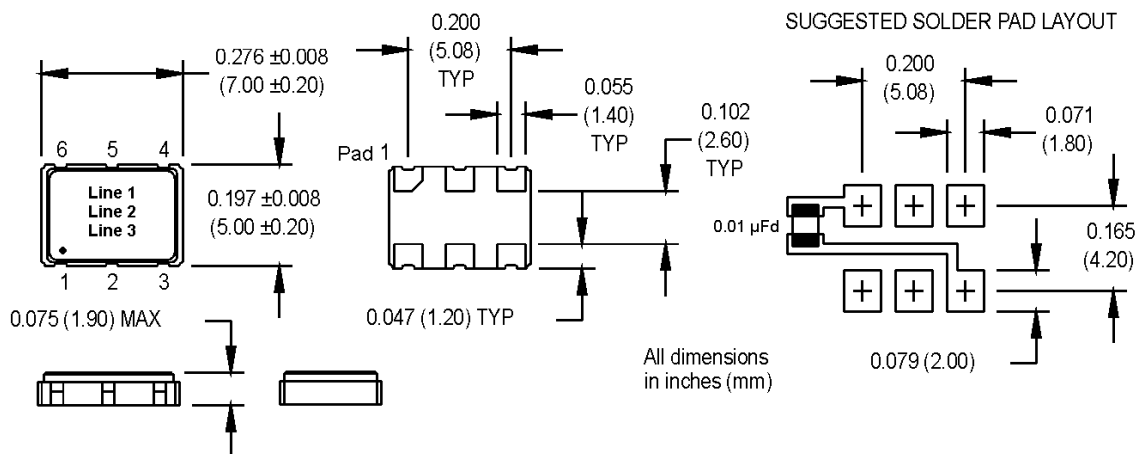
Part Marking	
Line 1	M2702S001
Line 2	156M2539
Line 3	M yywwvv

Legend	
yy	Year
ww	Work Week
vv	Factory Code

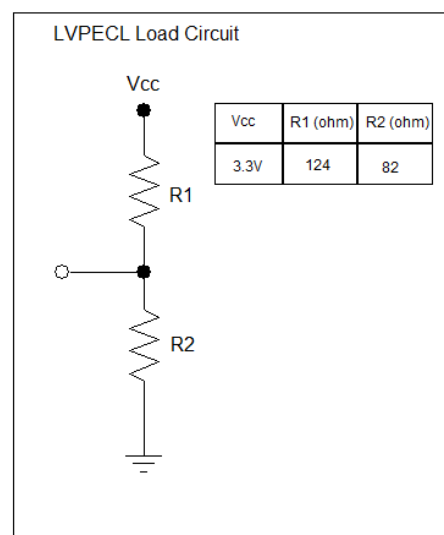
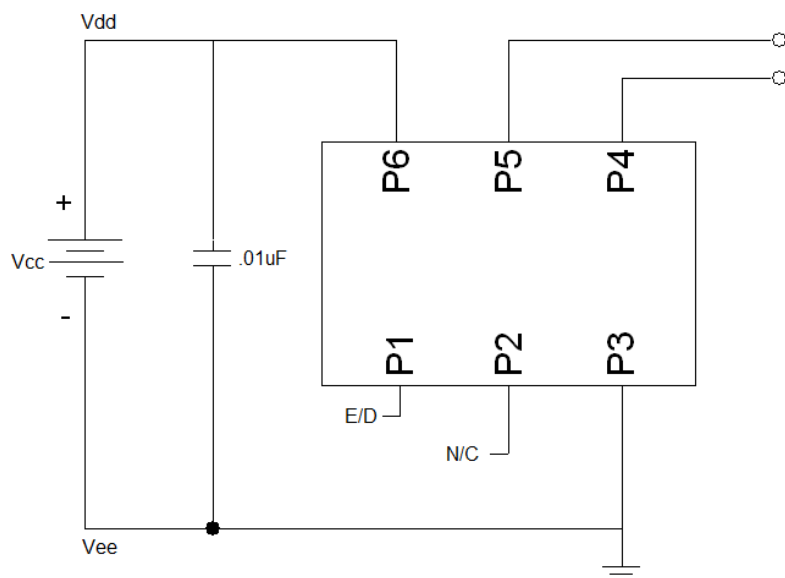


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Dimensions:



Typical Test Circuit & Load Circuit Diagrams:





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Soldering Conditions:

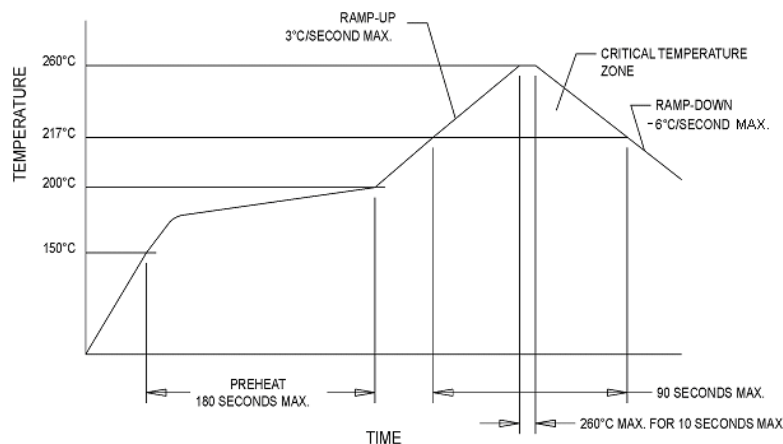
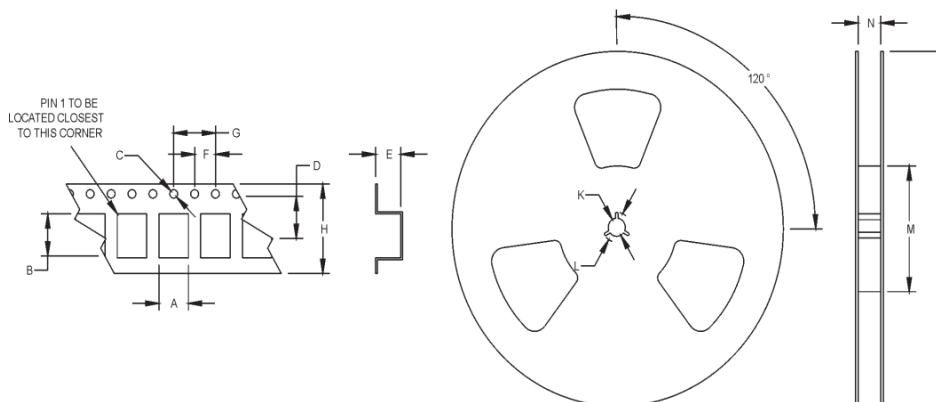


Figure 1

Tape and Reel Specifications:

All units in mm



Tape and Reel Specifications											
A	B	C	D	E	F	G	H	J	K	L	M
5.32	7.28	1.5	7.5	2.2	4	8	16	178	13.5	24.8	80

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
01/12/16	0	DCO	Original release