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SPECIFICATION FOR RoHS 6 COMPLIANT LVDS OUTPUT SMT VCTCXO
MtronPTI P/N M6300S083

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		200.000000		MHz	
Frequency Tolerance		-1.0		+1.0	ppm	@ +25°C
Frequency Stability						
vs. Temperature	$\Delta F/F$			1.0	ppm	(Max-Min)/2
vs. Aging		-3		+3	ppm	1st year
		-1		+1	ppm	Per year thereafter.
RF Output						
Output Type		Differential LVDS Compatible				
Output Load		100 Ω Differential			V	
Common Mode Output Voltage			1.2		V	
Differential Output Voltage		250	350	450	mV	LVDS Load
Symmetry (duty cycle)	T_{DC}	45		55	%	Referenced to 1.25 V
Output Skew			20		pS	
Rise/Fall Time	T_R/T_F			0.35	nS	From 20% to 80% V_{CC}
Frequency Adjustment						
Control Voltage Range		0.3		3.0	V	Pad 1
Tuning Range		±10			ppm	Pad 1
Linearity				5	%	Positive Monotonic
Modulation Bandwidth		10			kHz	- 3 dB
Other Parameters						
Phase Noise			-67		dBc/Hz	@ 100 Hz
			-100			@ 1 kHz
			-110			@ 10 kHz
			-120			@ 100 kHz
			-127			@ 1 MHz
			-138			@ 10 MHz
			-142			@ 20 MHz
			-142			@ 40 MHz
Phase Jitter	Φ_J		0.41		pS RMS	Integrated From: 12kHz to 20 MHz
Supply Voltage & Power Consumption						
Operating Voltage	V_{CC}	3.135	3.3	3.465	V	
Operating Current	I_{CC}			100	mA	

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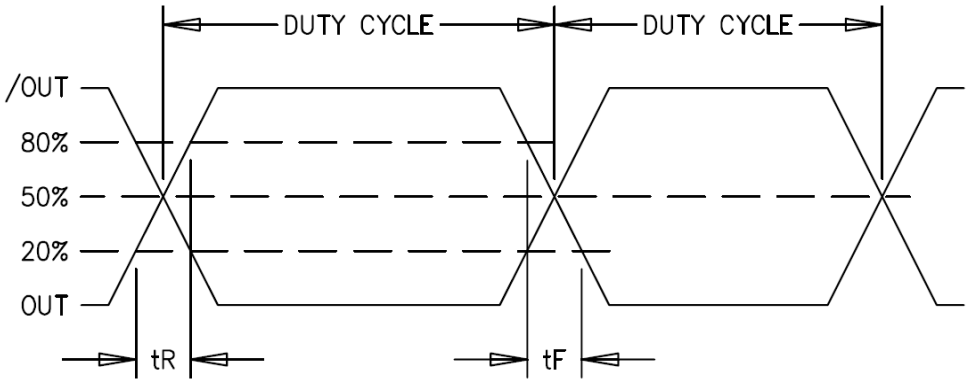
Output Waveform:



Environmental Conditions:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Temperature	T_A	-40		+85	°C	
Storage Temperature	T_S	-55		+125	°C	
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 Shock	Per MIL-STD-883, Method 1011, Condition A					
Thermal Cycle	Per MIL-STD-883, Method 1010, Condition B					
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 Figure 1.					
Package Type	6-pad 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant.					

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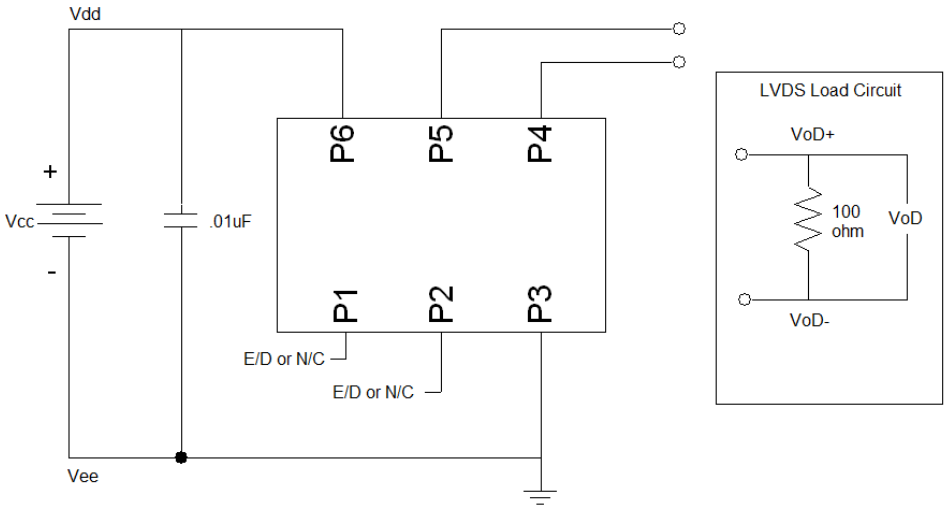
Typical Test Circuit & Load Circuit Diagrams:



Soldering Conditions:

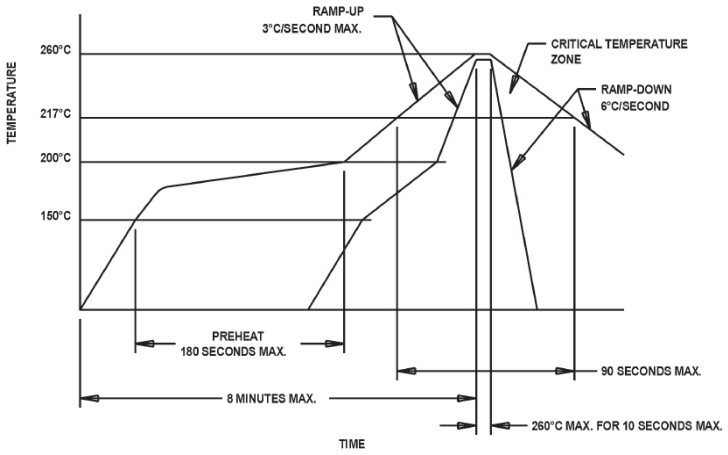


Figure 1

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SPECIFICATION FOR RoHS 6 COMPLIANT LVDS OUTPUT SMT VCTCXO
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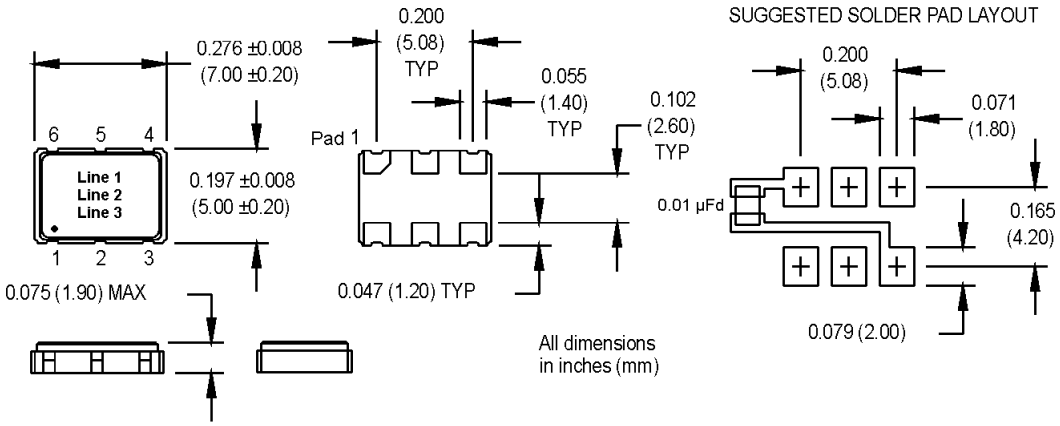
Mechanical, Marking, and Pin Out Information:

Part Marking	
Line 1	M6300S083
Line 2	200M000
Line 3	MPTI yyww
Line 4	####

Legend	
yy	Year
ww	Work week
#	Serial Number

Pin	Function
1	Voltage Control
2	N/C
3	Ground
4	Output
5	Complementary Output
6	$+V_{CC}$



Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
05/15/15	0	MM	Original release.
2/28/17	A	MM	Updated part marking, added special screening.