1703 E. Highway 50 Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
Website: www.mtronpti.com

SPECIFICATION FOR RoHS 6 COMPLIANT LVDS OUTPUT SMT TCXO
MtronPTI P/N M6300S074

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		1000.000000		MHz	
Frequency Tolerance		-1.5		+1.5	ppm	@ +25°C
Frequency Stability						
vs. Temperature	$\Delta F/F$			2.0	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}
Other Parameters						
Phase Noise			-88		dBc/Hz	@ 100 Hz
G-sensitivity			-105			@ 1 kHz
			-112			@ 10 kHz
			-117			@ 100 kHz
			-129			@ 1 MHz
			-143			@ 10 MHz
			-148			@ 20 MHz
			-150			@ 40 MHz
Phase Jitter	Φ_J		0.23		pS RMS	Integrated 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	

Environmental 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 (1×10^{-8} atm cc/s of helium)					
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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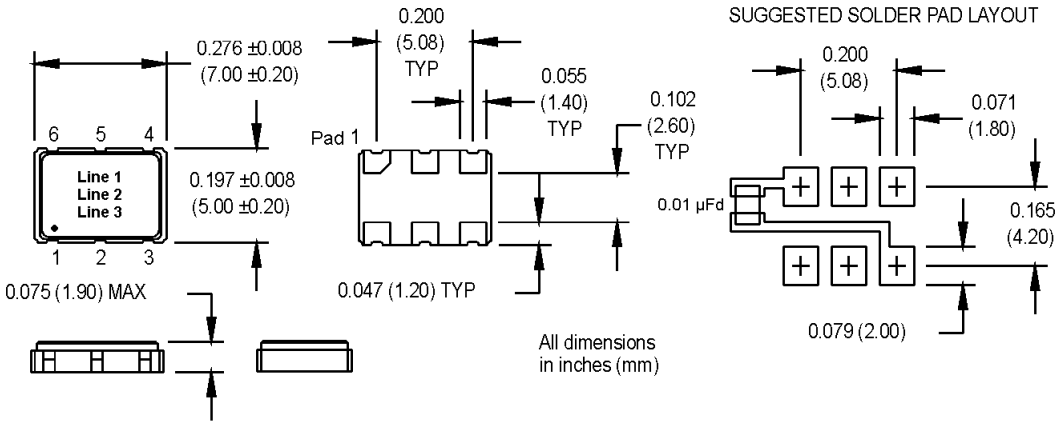
Mechanical, Marking, and Pin Out Information:

Part Marking	
Line 1	M6300S074
Line 2	1000M000
Line 3	MPTI yyww

Legend	
yy	Year
ww	Work week

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



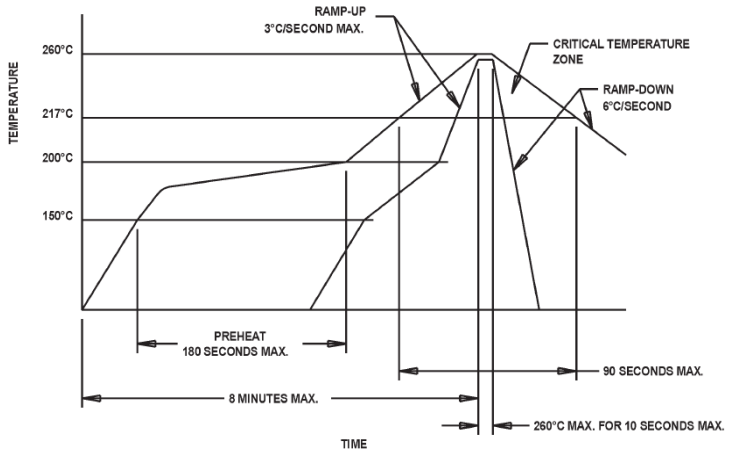


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
04/15/14	0	MM	Original release.
06/13/14	A	MM	Updated stability specification.