

SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS TCXO

MtronPTI P/N M6300S077

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _O		80.000000		MHz	
Initial Accuracy		-1		+1	ppm	@ +25°C
Frequency Stability						
vs. Temperature	ΔF/F			2.5	ppm	Over operating temperature range (F _{Max} - F _{Min})/2
vs. Aging		-3		+3	ppm	1 st year
		-1		+1		Thereafter (per year)
RF Output						
Output Type		HCMOS				
Output Load		15			pF	
Symmetry (duty cycle)	T _{DC}	45		55	%	½ V _{DD}
Logic “1” Level	V _{OH}	90% V _{DD}			V	HCMOS load
Logic “0” Level	V _{OL}			10% V _{DD}	V	HCMOS load
Rise/Fall Time	T _R /T _F			6	nS	From 10% to 90% V _{DD}
Tristate Enable Logic		80% V _{DD} or N/C			V	Pad 1. Clock Signal Output
Tristate Disable Logic				0.5	V	Pad 1. Output to High-Z
SSB Phase Noise						
Typical Under Static Conditions			-74		dBc/Hz	@ 10Hz
			-106			@ 100Hz
			-124			@ 1kHz
			-131			@ 10kHz
			-136			@ 100kHz
			-144			@ 1 MHz
			-150			@ 10 MHz
			-153			@ 20 MHz
Supply Voltage & Power Consumption						
Operating Voltage	V _{CC}	3.135	3.3	3.465	V	
Operating Current	I _{CC}			90	mA	
Temperature Range						
Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+125	°C	

Environmental Conditions:

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)
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. M6300-Series

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Mechanical, Marking, and Pin Out Information:

Part Marking	
Line 1	M6300S077
Line 2	80M0000
Line 3	MPTI yyww

Legend	
yy	Year
ww	Work week

Pin	Function
1	Tristate
2	N/C
3	Ground
4	Output
5	N/C
6	+V _{CC}

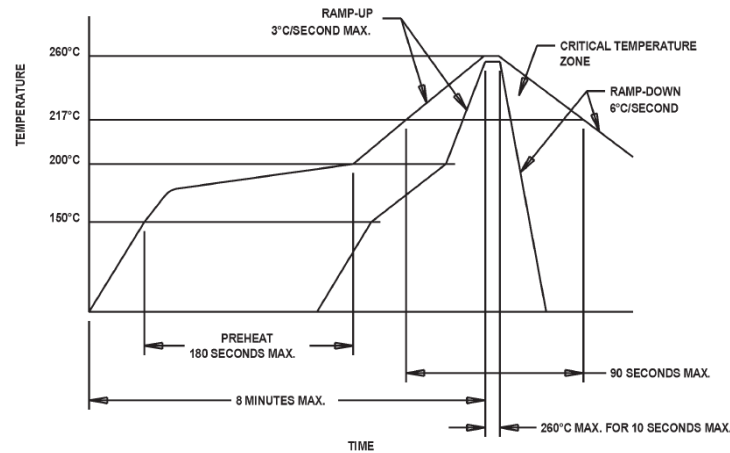
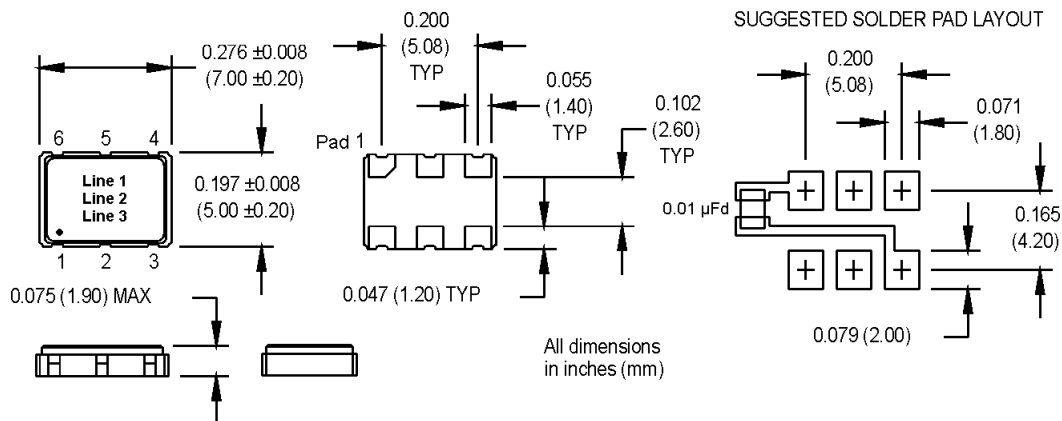


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
11/17/14	0	MM	Original release.