



## SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS TCXO MtronPTI P/N M6300S087

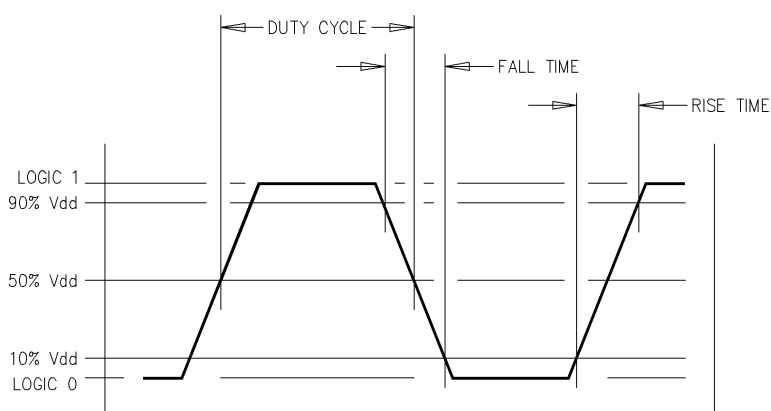
### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>O</sub>		10.000000		MHz	
Initial Accuracy		-1		+1	ppm	@ +25°C
Frequency Stability						
vs. Temperature	ΔF/F			4.6	ppm	Over operating temperature range (F <sub>Max</sub> - F <sub>Min</sub> )/2
RF Output						
Output Type		HCMOS				
Output Load		15			pF	
Symmetry (duty cycle)	T <sub>DC</sub>	45		55	%	½ V <sub>DD</sub>
Logic “1” Level	V <sub>OH</sub>	90% V <sub>CC</sub>			V	HCMOS load
Logic “0” Level	V <sub>OL</sub>			10% V <sub>CC</sub>	V	HCMOS load
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			10	nS	From 10% to 90% V <sub>CC</sub>
SSB Phase Noise						
Typical Under Static Conditions			-76		dBc/Hz	@ 10Hz
			-110			@ 100Hz
			-128			@ 1kHz
			-136			@ 10kHz
			-141			@ 100kHz
			-148			@ 1 MHz
			-149			@ 20 MHz
Supply Voltage & Power Consumption						
Operating Voltage	V <sub>CC</sub>	3.135	3.3	3.465	V	
Operating Current	I <sub>CC</sub>			90	mA	



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### Output Waveform:



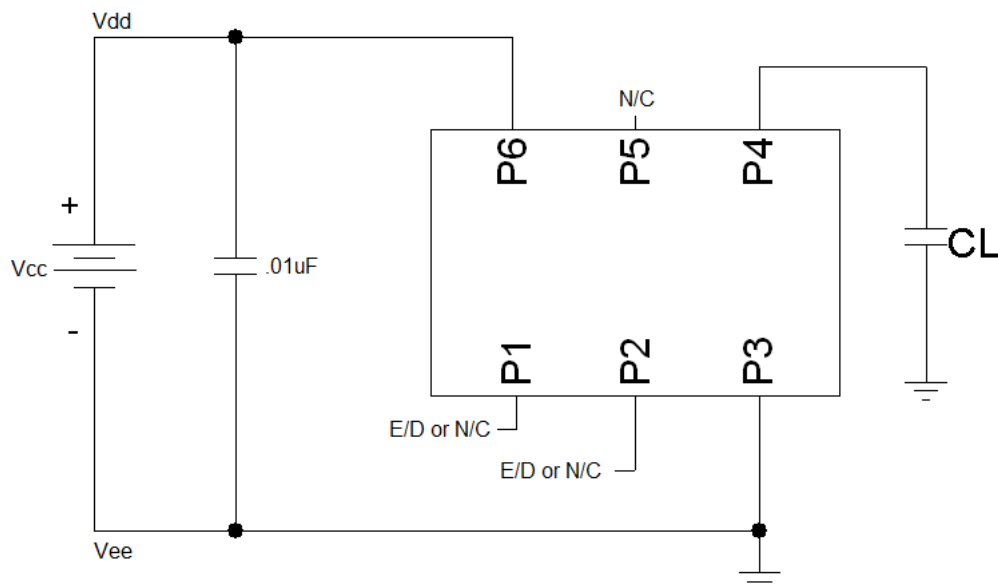
### Environmental Conditions:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Temperature	T <sub>A</sub>	-55		+125	°C	
Storage Temperature	T <sub>S</sub>	-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 <sup>-8</sup> 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. M6300-Series					



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### Typical Test Circuit & Load Circuit Diagrams:



### Soldering Conditions:

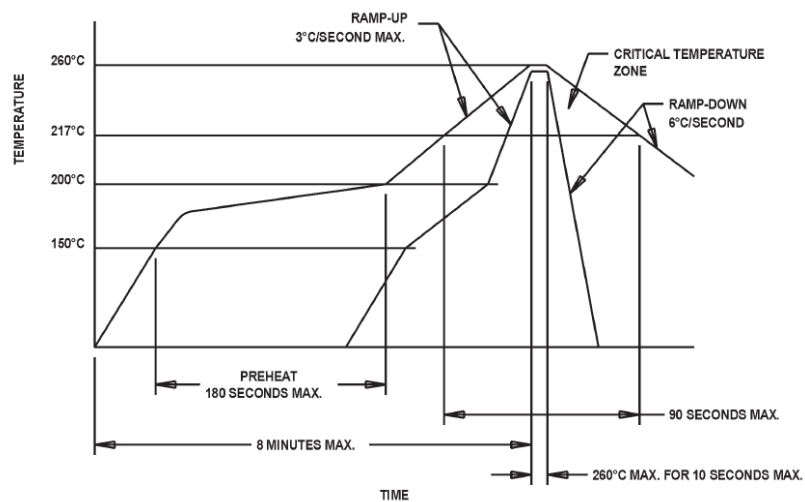


Figure 1



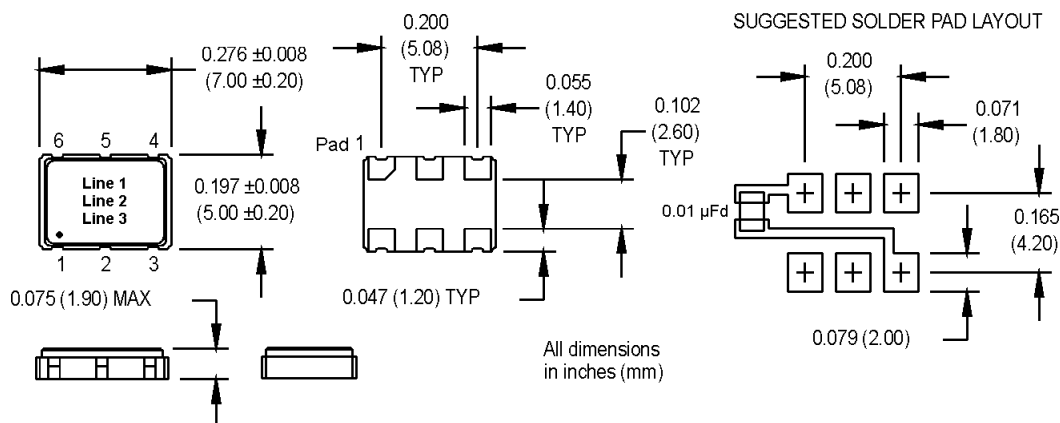
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### Mechanical, Marking, and Pin Out Information:

Part Marking	
Line 1	M6300S087
Line 2	10M0000
Line 3	MPTI yyww

Legend	
yy	Year
ww	Work week

Pin	Function
1	N/C
2	N/C
3	Ground
4	Output
5	N/C
6	+V <sub>CC</sub>



### Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
03/11/16	0	MM	Original release.
03/22/16	A	MM	Updated Customer name.