



# **SPECIFICATION FOR SMT VCTCXO** MtronPTI P/N M6161S055

## **Electrical Specifications:**

Parameter	Symbol	Min.	Тур.	Max.	Units	Conditions	
Frequency of Operation	Fo		20.000000		MHz		
Frequency Tolerance		-1.5		+1.5		@ +25°C, at time of shipment	
		F	requency Sta	ability			
Frequency Drift 24hrs		-3.0		+3.0	ppm		
Overall Frequency Stability	ΔF/F	-10		+10	ppm	Inclusive of deviation over operating temperature, supply, load changes and 15 years aging	
Frequency Vs. Supply			± 0.02	± 0.1	ppm	For 5% supply variation	
Frequency Vs. Load			± 0.02	± 0.1	ppm	For 5% load change	
			Output				
Output Type		HC	MOS Compa	tible			
Output Load			7	15	pF		
Symmetry (duty cycle)	T <sub>DC</sub>	40	50	60	%	@ 50% of VDD	
Output Logic Levels	V <sub>OL</sub>			0.4	V		
Output Level	V <sub>OH</sub>	V <sub>DD</sub> - 0.3			V		
Rise/Fall Time				6.0	ns	Ref. 20% and 80%	
Tristate Function		Logic "1", or floating, output Enabled. Logic "0", output Disabled.			Pad 8		
Start-up Time	Tsu			10	ms		
	1	Add	itional Speci	fications		1	
				-146	dBc/Hz	@ 100 kHz	
Phase Noise			-156	-154	dBc/Hz	@ 1 MHz	
			-156	-154	dBc/Hz	@ 3 MHz	
Spurious				-60	dBc	± 3.0 MHz from Carrier	
Subharmonics		No subharr	monics of fund	lamental			
	Supply Voltage & Power Consumption						
Operating Voltage	V <sub>DD</sub>	3.135	3.3	3.465	V		
Operating Current	I <sub>DD</sub>			4.0	mA		

#### **Environmental Conditions:**

Operating Temperature	T <sub>A</sub>	-40		+70	°C	
Storage Temperature	Ts	-55		+90	°C	
Service Life (Operational)	> 2000 hours					
Mechanical Shock	30 g's, 30 ms duration					
Vibration (Operational)	Flat Random 4.4 Grms 20 Hz to 3000 Hz					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	5.0 x 7.0 x 2.0mm, 10-pad Ceramic Leadless Chip Carrier. RoHS Compliant.					





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## **Mechanical and Layout Information:**

Pad	Function		
1	N/C		
2	N/C		
3	N/C		
4	Ground/Case		
5	Output		
6	N/C		
7	N/C		
8	Tristate		
9	+V <sub>DD</sub>		
10	NC		



#### **Datasheet Revision Table:**

Date	Rev.	Author	Details of Revision
03/27/18	0	MM	Original Release.