



# SPECIFICATION FOR SMT TCXO MtronPTI P/N M6164S045

## **Electrical Specifications:**

Parameter	Symbol	Min.	Тур.	Max.	Units	Conditions
Frequency of Operation	Fo		50.000000		MHz	
Frequency Tolerance		-1.0		+1.0	ppm	@ +25°C
		Fre	equency Stabi	ilities		
Frequency vs. Temperature	$\Delta$ F/F			0.3	ppm	(Fmax-Fmin)/2
Aging		-2.0		+2.0	ppm	1 <sup>st</sup> year
		-5.0		+5.0	ppm	10 years
Frequency vs. Supply	Fvs			± 0.1	ppm	For 5% voltage change
Frequency vs. Load	F∟			± 0.1	ppm	For 5% load change
			Output			
Output Type		H	CMOS Compat	tible		
Output Load				15	pF	
Symmetry (duty cycle)	T <sub>DC</sub>	40	50	60	%	@ 50% of VDD
Output Logic Levels	Vol			20	% Vdd	
Output Level	Vон	80			% Vdd	
Rise/Fall Time				6.5	ns	Ref. 10% and 90%
Tristato Eurotion		Logic "1", o	or floating, outp	Pad 8		
Thistate Function		Logic "0", o	output Disabled	Faulo		
Startup Time	Tsu			10	ms	
		Addi	tional Specific	cations		
SSB Phase Noise (Under Static Conditions)			-80			@ 10Hz Offset
			-108			@ 100Hz Offset
			-132		dBc/Hz	@ 1kHz Offset
			-149			@ 10kHz Offset
			-156			@ 100kHz Offset
G-sensitivity			1.3		ppb/g	
		Supply Vol	tage & Power	Consumptio	on	
Operating Voltage	V <sub>DD</sub>	3.135	3.3	3.465	VDC	
Operating Current	I <sub>DD</sub>			6.5	mA	

### **Environmental & Mechanical Requirements:**

Operating Temperature	TA	-40		+85	°C	
Storage Temperature	Ts	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sine wave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Solderability	Per MIL-S	TD-202, Me	thod 208, exce	ept steam agir	ng is not rea	quired
Max. Soldering Conditions	See solder	<sup>·</sup> profile, Figu	re 1			
Package Type	5.0 x 7.0 x	2.0mm, 10-p	ad Ceramic Le	adless Chip C	arrier. RoH	S Compliant.



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#### Mechanical, Marking 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	N/C		



#### **Data Sheet Revision Table:**

Date	Rev.	Author	Details of Revision
06/19/18	0	MM	Original Release.
06/21/18	А	MM	Updated aging specification.
08/14/18	В	MM	Updated supply current specification.

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