





## **SPECIFICATION FOR 3.3V LVDS SMT TCXO** MtronPTI P/N M6300S114

### **Electrical Specifications:**

Parameter	Symbol	Min.	Тур.	Max.	Units	Conditions
Frequency of Operation	Fo		200.000000		MHz	
Frequency Tolerance		-1.0		+1.0	ppm	@ +25°C
		Fr	equency Sta	bility		
vs. Temperature	$\Delta$ F/F			1.0	ppm	(Max-Min)/2
		-3		+3	ppm	1 <sup>st</sup> year
vs. Aging		-1		+1	ppm	Per year thereafter.
			RF Output			
Output Type		Differen	tial LVDS Comp	oatible		
Output Load		100 Ω Differential			V	
Common Mode Output Voltage			1.2		V	
Differential Output Voltage		250	425	500	mV	LVDS Load
Symmetry (duty cycle)	T <sub>DC</sub>	45		55	%	Referenced to 1.2 V
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			0.35	nS	From 20% to 80% Vcc
Tristate Logic		80% V <sub>CC</sub> or N/C			V	Pad 1. Clock Signal Output
J.				0.5	V	Pad 1. Output to High-Z
	S	Supply Volt	age & Power	Consum	ption	·
Operating Voltage	Vcc	3.135	3.3	3.465	V	
Operating Current	Icc			100	mA	

### **Environmental Conditions:**

Parameter	Symbol	Min.	Тур.	Max.	Units	Conditions
Operating Temperature	TA	-40		+85	°C	
Storage Temperature	Ts	-55		+125	°C	
Shock	Per MIL-S	TD-202, M	ethod 213, Con	dition C (10	0 g's, 6 ms	duration, ½ sinewave)
Vibration	Per MIL-S	TD-202, M	ethod 201 & 20	4 (10 g's fro	om 10-2000	Hz)
Thermal Shock	Per MIL-S	TD-883, M	ethod 1011, Co	ndition A		
Thermal Cycle	Per MIL-S	TD-883, M	ethod 1010, Co	ndition B		
Hermeticity	Per MIL-S	TD-202, M	ethod 112 (1 x	10 <sup>-8</sup> atm cc/	's of helium)	
Moisture Sensitivity Level (MSL)	MSL 1					
Solderability	Per EIAJ-S	STD-002				
Max. Soldering Conditions	See Figure 1.					
Package Type	Package Type 6-pad 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant.			nt.		

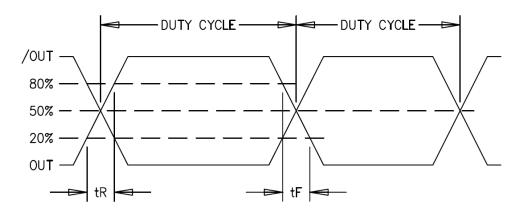




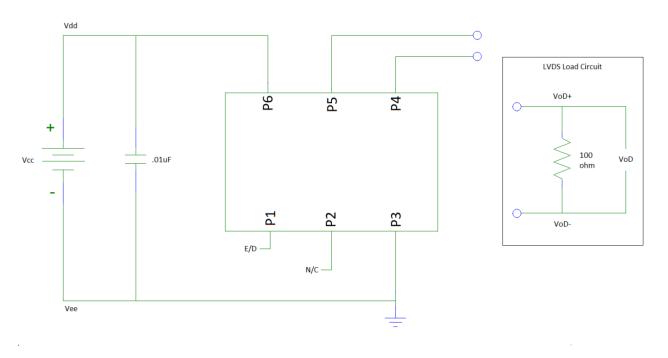


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## **Output Waveform:**



# **Typical Test Circuit & Load Circuit Diagrams:**



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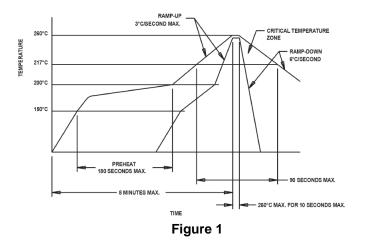






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## **Soldering Conditions:**

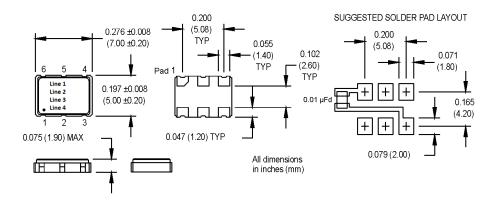


### Mechanical, Marking, and Pin Out Information:

Part Marking		
Line 1	M6300S114	
Line 2	200.0000MHz	
Line 3	yyww	
Line 4	MtronPTI-logo	

Legend		
уу	Year	
ww	Work week	

Pin	Function
1	Tristate Control
2	N/C
3	Ground
4	Output
5	Complementary Output
6	+V <sub>cc</sub>



#### Datasheet Revision Table

Date	Rev.	Author	Details of Revision			
07/13/18	0	MM	Original release.			

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