This product has been replaced by the M623x Series.

1703 E. Highway 50 Yankton, SD 57078 USA
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Website: www.mtronpti.com

SPECIFICATION FOR SMT TCXO
MtronPTI P/N: M6131S008

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		32.000000		MHz	
Frequency Stabilities						
Frequency Stability	ΔF/F	-20		+20	ppm	Includes initial tolerance, deviation over Operating Temperature, supply voltage, load, and 10 year aging.
Frequency vs. Aging	F_A	-1.0		+1.0	ppm	Per yr.
Output						
Output Type			HCMOS Compatible			
Output Load				15	pF	
Symmetry (Duty Cycle)		45		55	%	Ref. to ½ V_S
Output Logic Level "1"	V_{OH}	90% V_S			V	HCMOS Load
Output Logic Level "0"	V_{OL}			10% V_S	V	HCMOS Load
Rise/Fall Time				4	ns	Ref. 20% to 80%
Additional Specifications						
Phase Noise				-70	dBc/Hz	@ 10 Hz
				-90	dBc/Hz	@ 100 Hz
				-115	dBc/Hz	@ 1 kHz
				-125	dBc/Hz	@ 10 kHz
				-130	dBc/Hz	@ 100 kHz
				-140	dBc/Hz	@ 1 MHz
Phase Jitter (RMS)			0.5	1.0	pS	12 kHz to 80 MHz
Sub-Harmonics			None			
Supply Voltage & Power Consumption						
Operating Voltage	V_S	3.135	3.3	3.465	V	Pad 4
Operating Current	I_S			25	mA	

Environmental & Mechanical Requirements:

Operating Temperature	T_A	-55		+85	°C	
Storage Temperature	T_S	-55		+85	°C	
Shock	IAW MIL-STD-883, Method 2002, Condition B					
Vibration	IAW MIL-STD-883, Method 2007, Condition A.					
Thermal Shock	IAW MIL-STD-883, Method 1011, Condition B					
Moisture Resistance	IAW MIL-STD-883, Method 1004					
Max. Soldering Conditions	See Figure 1.					
ESD Handling	IAW JESD625 or equivalent.					
Solderability	IAW MIL-STD-883, Method 2003.					
Package Type	4-Pad 9.40 X 14.22 X 5.10 mm FR-4 SMT.					

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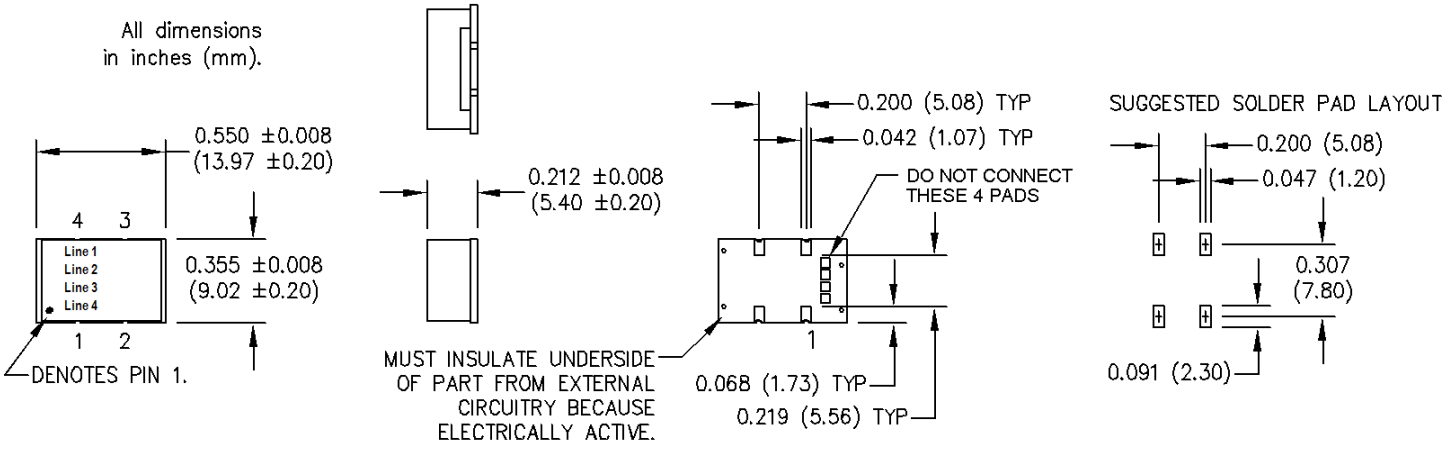
Dimensions, Pin Out, and Marking Information:

Pad	Function
1	N/C
2	Ground
3	Output
4	$+V_{DD}$

Part Marking	
Line 1	M6131S008
Line 2	32M0000
Line 3	MtronPTI (yyww)
Line 4	Serial #

Legend	
yy	Year
ww	Week



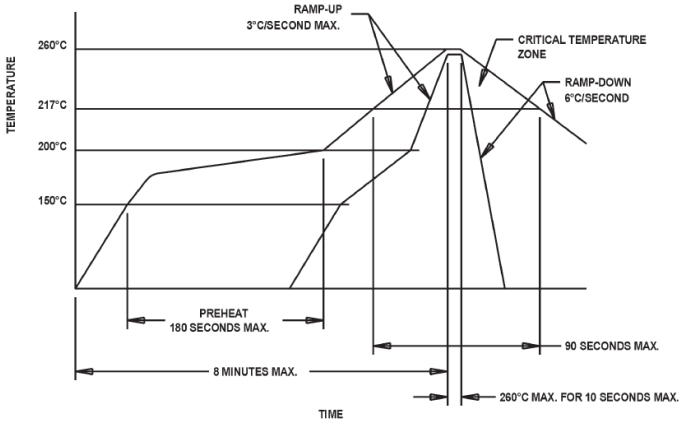


Figure 1

DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
10/18/10	0	WNJ	Original release.
10/28/10	A	WNJ	Updated Mechanical Package information.
3/29/11	B	WNJ	Corrected Mechanical/Package drawing for 4-pad device.
12/08/14	C	MM	Updated device marking.
7/01/15	D	MM	Corrected part marking