This product has been replaced by the M623x Series.

MtronPTI ...when timing matters

1703 E. Highway 50 Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
Website: www.mtronpti.com

SPECIFICATION FOR SMT TCXO
MtronPTI P/N M6131S033

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		80.000000		MHz	
	Frequency Stabilities					
Initial Tolerance		-1.0		+1.0	ppm	@ +25˚C
vs. Temperature	ΔF/F	-2.5		+2.5	ppm	Over -40°C to +85°C range. (Relative to frequency @+25˚C)
	ΔF/F	-10		+10		over -55°C to -40°C range (Relative to frequency @+25˚C)
	ΔF/F	-10		+10		over +85°C to +100°C range (Relative to frequency @+25˚C)
vs. Supply				±0.4	ppm	For 5% supply variation
vs. Load				±0.3	ppm	For 5% load variation
	Output					
Output Type			LVCMOS			
Output Load				15	pF	
Symmetry (duty cycle)	T_{DC}	45	50	55	%	@ 50% of V_{DD}
Output Logic Levels	V_{OL}			10	% V_{CC}	
Output Level	V_{OH}	90			% V_{CC}	
Rise/Fall Time				4	ns	Ref. 10% and 90%
	Additional Specifications					
SSB Phase Noise (Under Static Conditions)			-74	-70	dBc/Hz	@ 10 Hz
			-102	-100		@ 100 Hz
			-127	-125		@ 1 kHz
			-148	-145		@ 10 kHz
			-155	-151		@ 100 kHz
			-158	-154		@ 1 MHz
	Supply Voltage & Power Consumption					
Operating Voltage	V_{DD}	3.135	3.3	3.465	V_{DC}	
Operating Current	I_{DD}			30	*mA*	

Environmental & Mechanical Requirements:

Operating Temperature	T_A	-55		+100	°C	
Storage Temperature	T_S	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6msec duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 Condition D (20 g's from 10-2000Hz)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	4-Pad FR-4					
Pad Termination	ENIG over Cu					

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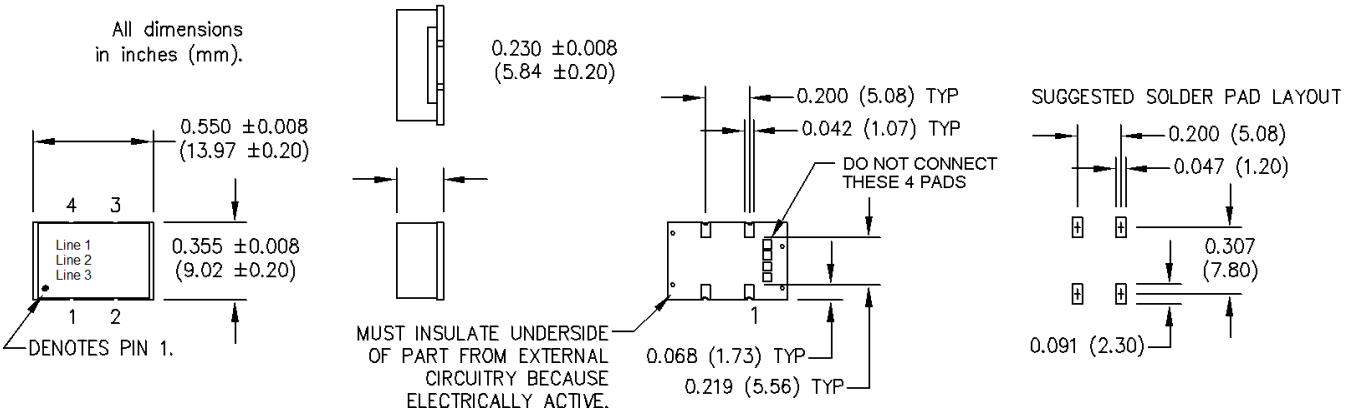
Mechanical, Marking and Layout Information:

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

Part Marking	
Line 1	M6131S033
Line 2	80M0000
Line 3	MtronPTI (yyww)

Legend	
yy	Year
ww	Week



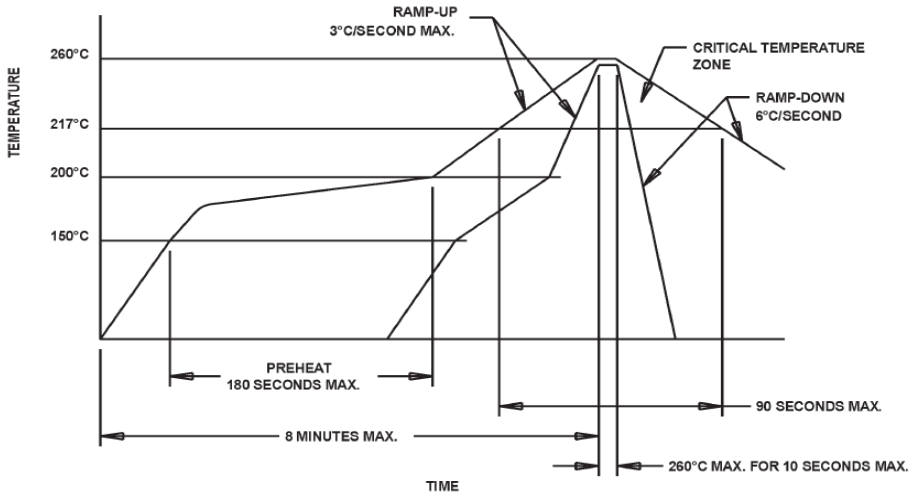


Figure 1

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
09/25/18	0	MM	Original Release.
11/11/19	A	MM	Added customer part number.
12/17/19	B	MM	Updated stability
05/05/20	C	MM	Updated operating temperature range from +105 to +100C.