MtronPTI ...when timing matters

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SPECIFICATION FOR STRATUM 3 SMT VCTCXO
MtronPTI P/N M6161S002

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		12.8000000		MHz	
Frequency Stability	ΔF/F	-0.28		+0.28	ppm	Over operating temperature
Holdover Stability		-0.32		+0.32	ppm	For 24 hrs. over operating temperature.
Overall Stability		-4.6		+4.6	ppm	Stability over 10 years
Frequency Vs. Reflow		-1.0		+1.0	ppm	
Frequency Vs. Supply			± 0.02	± 0.1	ppm	For a 5% supply change
Frequency Vs. Load			± 0.02	± 0.1	ppm	For 5% load change
Operating Temperature	T_A	-40		+85	°C	
Operating Voltage	V_{DD}	3.135	3.3	3.465	V	
Operating Current	I_{DD}		2.2	3.3	mA	
Output Type		HCMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T_{DC}	45	50	55	%	@ 50% of V_{DD}
Logic "1" Level	V_{OH}	80% V_{DD}			V	HCMOS load
Logic "0" Level	V_{OL}			20% V_{DD}	V	HCMOS load
Rise/Fall Time	T_R/T_F			8	ns	From 10% to 90% V_{DD}
Frequency Adjust Range		± 9.2			ppm	Over Control Voltage Range. Pad 10.
Control Voltage Range		0.3		3.0	V	Pad 10
Linearity		-3		+ 3	%	Positive slope. Pad 10
Input Leakage Current		-50		+50	µA	Pad 10
Input Resistance		100			kΩ	Pad 10
Modulation Bandwidth		2			kHz	Pad 10
Tri-state Enable Logic		70% V_{DD}			V	Pad 8
Tri-state Disable Logic				30% V_{DD}	V	Pad 8. Output to high-Z
Tri-State Leakage Current		-100		+100	µA	Pad 8
Phase Noise (typical)	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	
	-100	-130	-149	-155	-155	dBc/Hz

Environmental Conditions:

Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10^{-8} atm cc/s of Helium) (Crystal Only)
Storage Temperature	-55°C to +125°C
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	5.0 x 7.0 x 2.0 mm, 10-pad Ceramic Leadless Chip Carrier

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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	Tri-state
9	$+V_{DD}$
10	Control Voltage

Part Marking	
Line 1	M6161 ym
Line 2	12M800

Legend	
Y	Year
m	Month

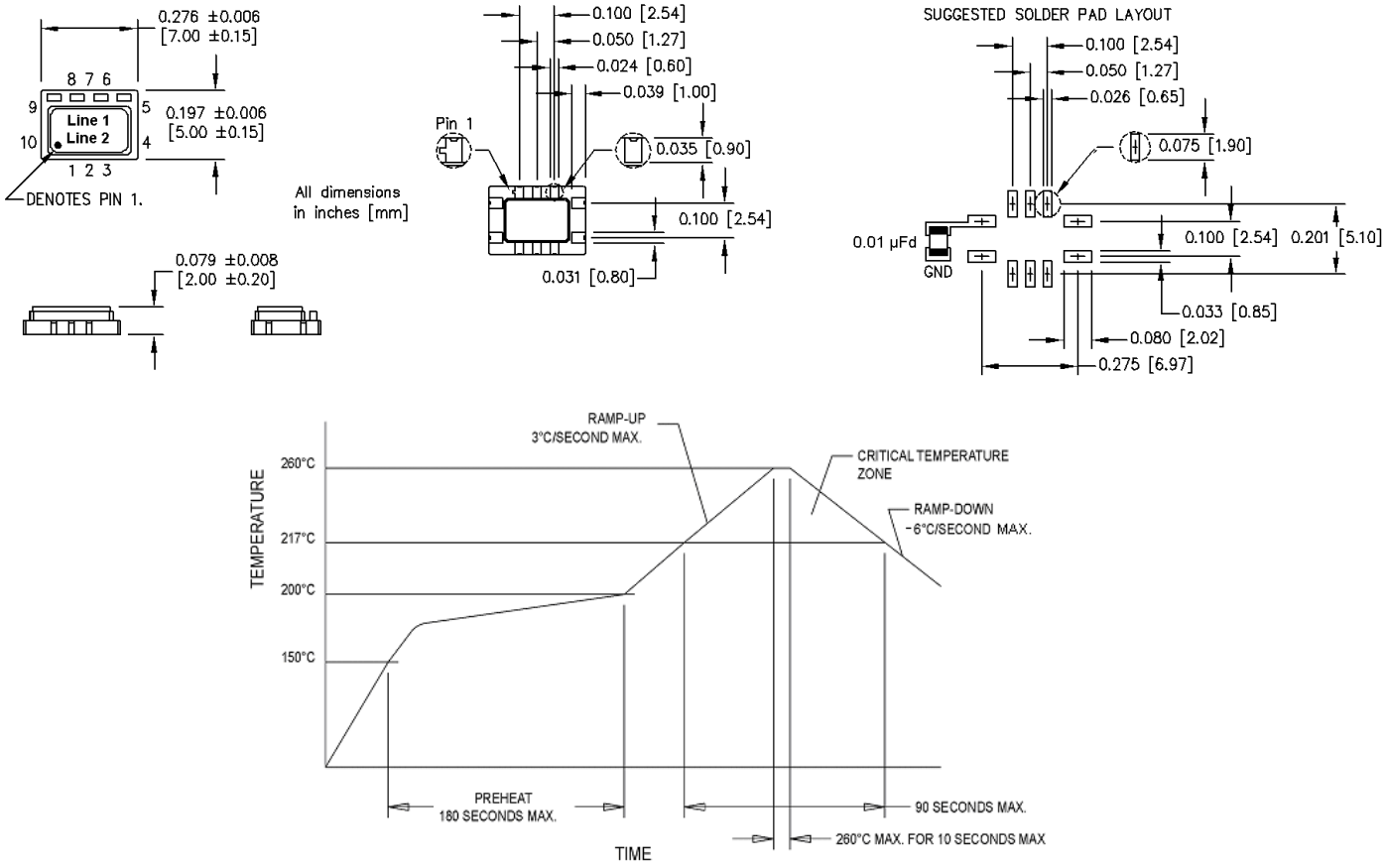

Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
3/11/11	0	WNJ	Original release.