MtronPTI ...when timing matters

1703 E. Highway 50 Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
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SPECIFICATION FOR LVPECL SMT VCXO
MtronPTI P/N M3028S002

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		153.600000		MHz	
Operating Temperature	T_A	-40		+85	°C	
Storage Temperature	T_S	-55		+125	°C	
Operating Voltage	V_{CC}	2.97	3.3	3.63	V	
Operating Current	I_{CC}			80	mA	
Output Type			LVPECL Compatible			
Output Load			50 Ω to (V_{CC} - 2)		V	
Symmetry (duty cycle)		45		55	%	Ref. to V_{CC} - 1.3 V
Logic Level "1"		V_{CC} - 1.02			V	
Logic Level "0"				V_{CC} - 1.63	V	
Rise/Fall Time	T_R/T_F			1	nS	From 20% to 80% of Waveform
Absolute Pull Range	APR	-25		+25	ppm	Includes initial tolerance, deviation over temperature, variations due to shock, vibration, supply voltage, and 10 year aging @ +55°C.
Control Voltage		0.3	1.65	3.0	V	Pad 1
Modulation Bandwidth	fm	20			kHz	-3 dB
Input Resistance	Z_{in}	1			MΩ	Pad 1
Start-up Time	T_{SU}			10	mS	T_{amb} = +25°C
Phase Noise (Measured @ 155.52MHz)				-54	dBc/Hz	@ 10 Hz
				-82	dBc/Hz	@100 Hz
				-114	dBc/Hz	@ 1 kHz
				-140	dBc/Hz	@ 10 kHz
				-145	dBc/Hz	@ 100 kHz

Environmental & Packaging Requirements:

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)
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10^{-8} atm cc/s of Helium)
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1.
Package Type	5 X 7 mm 6-pad leadless ceramic. RoHS compliant. (M3028 type)

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Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Control Voltage
2	N/C
3	Ground
4	Output
5	Complimentary Output
6	$+V_{CC}$

Part Marking	
Line 1	M3028S002
Line 2	153M6000
Line 3	M yywwvv

Legend	
yy	Year
ww	Work week
vv	Factory code

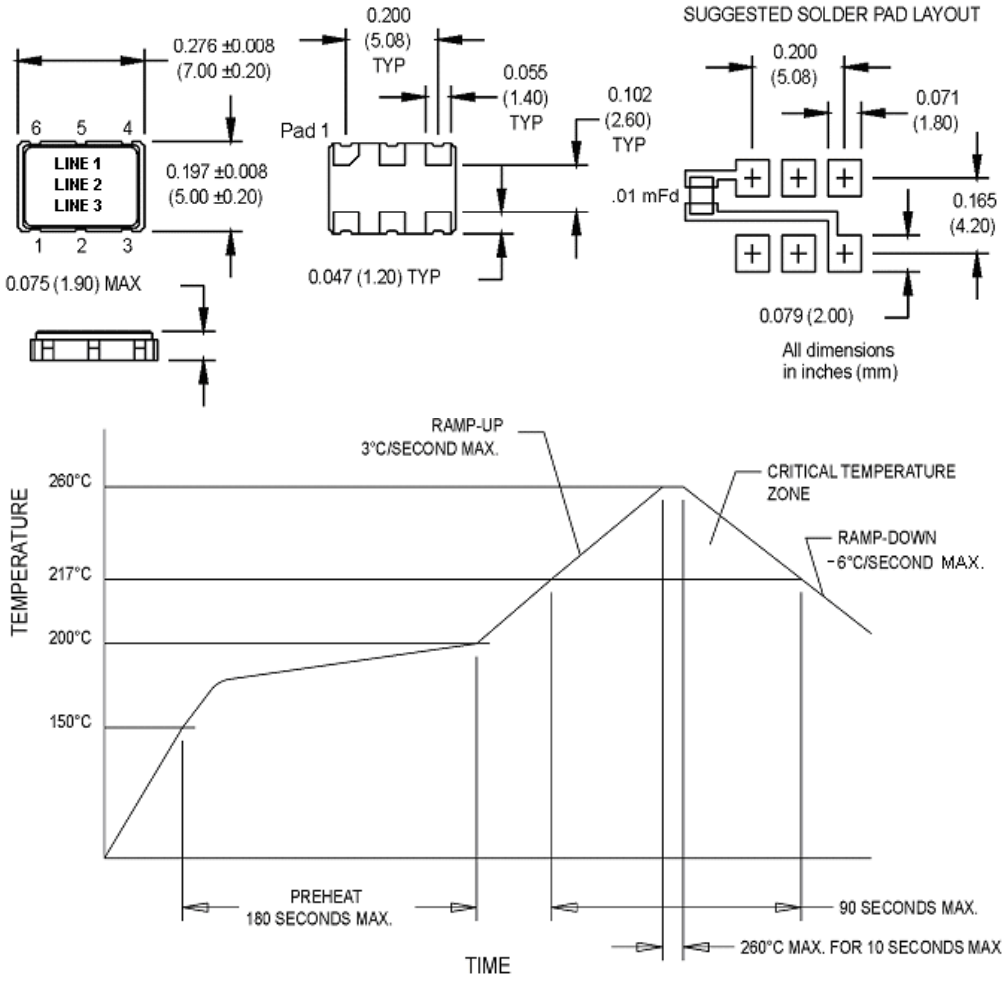

Figure 1

DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
3/13/13	0	MM	Original release.