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 LVDS OUTPUT SMT VCXO
MtronPTI P/N M3100S095

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Frequency	F_O		100.000000		MHz	V_C =1.65 V @ +25°C
Frequency Stability		-30		+30	ppm	Over operating temperature
Operating Temperature	T_A	0		+70	°C	
Storage Temperature	T_S	-55		+125	°C	
Aging		-3		+3	ppm	1st year
		-1		+1	ppm	Thereafter (per year)
Operating Voltage	V_{CC}	3.135	3.3	3.465	V	
Operating Current	I_{CC}			125	mA	
Output Type		Differential LVDS Compatible				
Output Load		100 Ω Differential			V	
Symmetry (duty cycle)	T_W/t	45		55	%	@ 1.25 V
Common Mode Output Voltage	V_{CM}		1.2		V	100 Ω Differential load
Differential Output Voltage	V_{OD}	250	350	450	mV	100 Ω Differential load
Rise/Fall Time	t_R/t_F			0.5	nS	From 20% to 80% of Waveform
Start-up Time	T_{SU}			10	mS	
Control Voltage	V_C	0.3	1.65	3.0	V	Pad 1. V_{CC} = 3.3 V
Pullability		± 150			ppm	
Linearity				+5	%	Positive slope
Modulation Bandwidth	BW	10			kHz	- 3 dB V_C = 1.65 V
Input Impedance	Z_{VC}	50			kΩ	Pad 1
Phase Jitter (RMS)				1.0	pS	12 kHz to 20 MHz
Enable Function		80% V_{CC} or N/C				Pad 2
Disable Function				0.5 V		Pad 2

Environmental & Packaging Requirements:

Mechanical 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)
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	5.0 X 7.0 X 2.0 mm 6-pad leadless ceramic. RoHS compliant.

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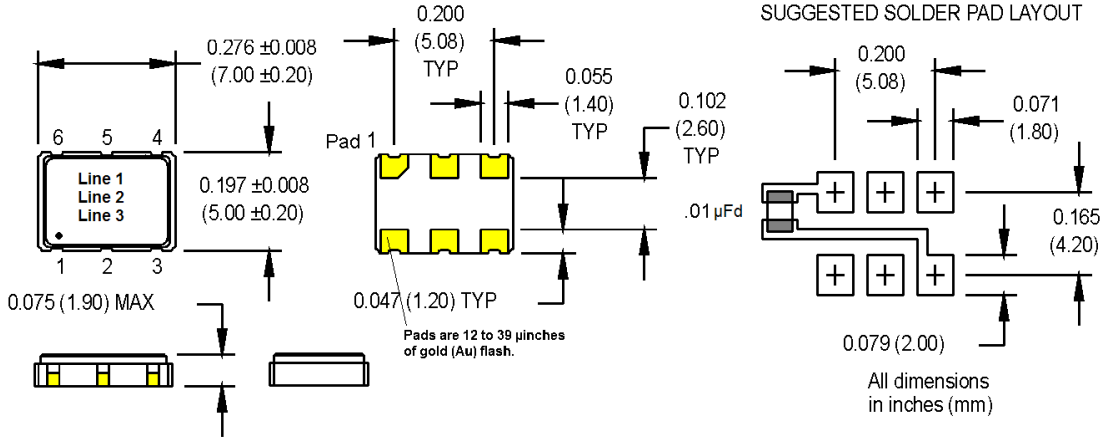
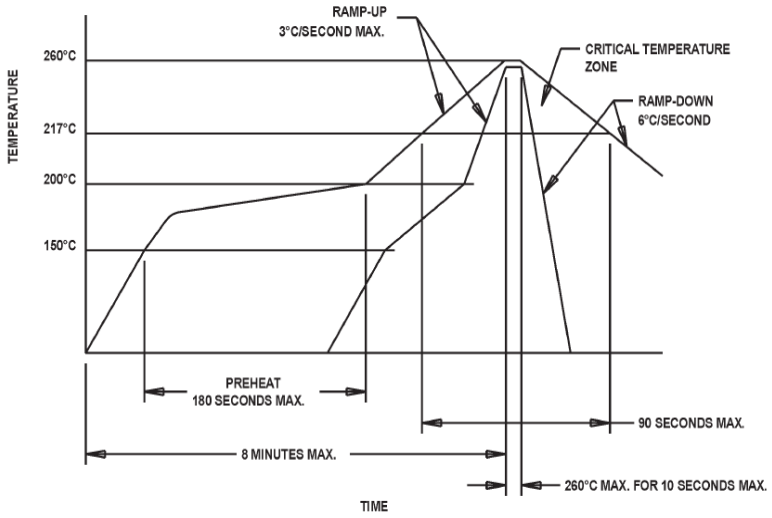
Mechanical, Marking, and Pin-Out Information:

Pad	Function
1	Control Voltage
2	Enable/Disable
3	Ground
4	CLK +
5	CLK -
6	Supply $+V_{CC}$

Part Marking	
Line 1	M3100S095
Line2	100M0000
Line 3	MPTI (yyww)

Legend	
yy	Year
ww	Work Week





DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
06/07/12	0	LEO	Original release.
9/20/12	A	MM	Corrected APR to PULL