



## SPECIFICATION FOR HALF-SIZE 3.3 V OSCILLATOR

### MtronPTI P/N M2004S036

#### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>O</sub>		70.656000		MHz	
Frequency Stability	$\Delta F/F$	-50		+50	ppm	Includes initial tolerance, deviation over temperature, shock, vibration, load, supply voltage, 1 <sup>st</sup> year aging @ 25°C
Operating Temperature	T <sub>A</sub>	-40		+85	°C	
Storage Temperature	T <sub>S</sub>	-55		+125	°C	
Aging		-5		+5	ppm	Per year @ 25°C
Operating Voltage	V <sub>DD</sub>	3.0	3.3	3.6	V	
Operating Current	I <sub>DD</sub>			40	mA	
Output Type		HCMOS				
Output Load				15	pF	
Symmetry (duty cycle)	T <sub>DC</sub>	40		60	%	Ref to ½ V <sub>DD</sub>
Logic "1" Level	V <sub>OH</sub>	90% V <sub>DD</sub>			V	HCMOS load
Logic "0" Level	V <sub>OL</sub>			10% V <sub>DD</sub>	V	HCMOS load
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			6	nS	Measured @ 20% to 80% of waveform
Tri-state Enable Logic		80% V <sub>DD</sub> or N/C			V	Pad 1
Tri-state Disable Logic				20% V <sub>DD</sub>	V	Pad 1. Output to high-Z
Random Jitter	R <sub>J</sub>			18	pS RMS	1-Sigma

#### Environmental & Mechanical 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)
Fine Leak Test	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm cc/s of Helium)
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1 below.
Package Type	8-Pin DIP compatible resistance weld. RoHS 6 compliant.



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### Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tri-state
2	Ground
3	Output
4	+V <sub>DD</sub>

Part Marking	
Line 1	M2004S036
Line 2	70.6560M
Line 3	MTRONPTI
Line 4	(yyww)

Legend	
yy	Year
ww	Work Week

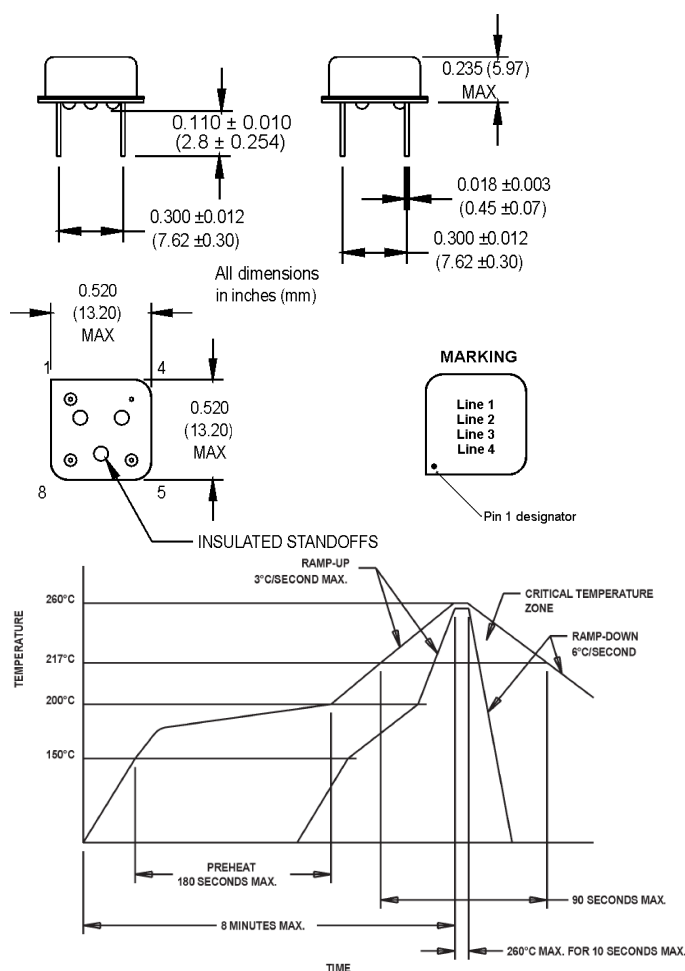


Figure 1

### DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
08/20/12	0	LEO	Original release.
08/28/12	A	LEO	Fixed drawing to reflect lead cut.