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# SPECIFICATION FOR SMT OSCILLATOR
# MtronPTI P/N M6300S008
# Effective Date: May 3, 2013

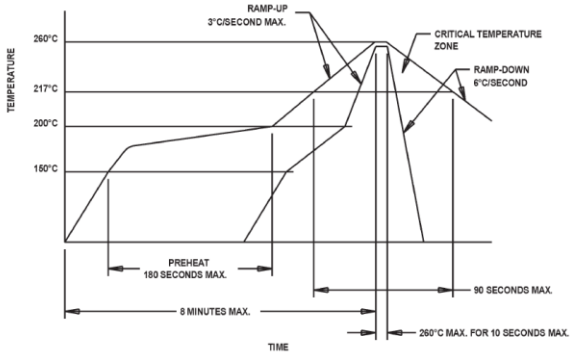
## I. GENERAL & ELECTRICAL REQUIREMENTS:

1. FREQUENCY OF OPERATION: 166.000000 MHz
2. FREQUENCY STABILITY: ±20 ppm max. (Inclusive of initial calibration, operating temperature, supply voltage, and 1 year aging at +50 °C).
3. OPERATING TEMPERATURE RANGE: -55 °C to +95 °C
4. OPERATING VOLTAGE (Vdd): + 3.3 V ± 5%
5. OPERATING CURRENT (Idd): 125 mA max.
6. OUTPUT LOGIC: Complementary LVPECL Compatible
7. OUTPUT LOGIC LEVELS: $V_{OL}$ = Vcc - 1.63 V max. $V_{OH}$ = Vcc - 1.02 V min.
8. SYMMETRY: 45/55% ref. to 50% of waveform.
9. RISE/FALL TIME: 0.55 ns max. ref. at 20% and 80%.
10. OUTPUT LOAD: 50 Ω to Vcc - 2 V.
11. ENABLE/DISABLE (Pad 1): Logic "1" enables outputs. Logic "0" disables outputs.
12. PHASE JITTER: 1 ps RMS max. (12 kHz to 20 MHz)
13. PHASE NOISE (Typical): 10 Hz -70 dBc/Hz, 100 Hz -90 dBc/Hz 1 kHz -113 dBc/Hz, 10kHz -125 dBc/Hz

## II. ENVIRONMENTAL/MECHANICAL REQUIREMENTS:

1. SHOCK: Per MIL-STD-202, Method 213, Condition C.
2. VIBRATION: Per MIL-STD-202, Methods 201 & 204.
3. HERMETICITY: 1 X $10^{-8}$ atm cc/sec min.
4. STORAGE TEMPERATURE: -55 °C to +125 °C.
5. MAXIMUM SOLDERING CONDITIONS: See Figure 1.
6. PACKAGE: 6-pad leadless ceramic. RoHS compliant.

**Figure 1**




## III. DIMENSIONS: