P.O. Box 630 100 Douglas Ave. Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
Website: www.mtronpti.com

SPECIFICATION FOR RoHS COMPLIANT LVPECL SMT OSCILLATOR
MtronPTI P/N M2100S012

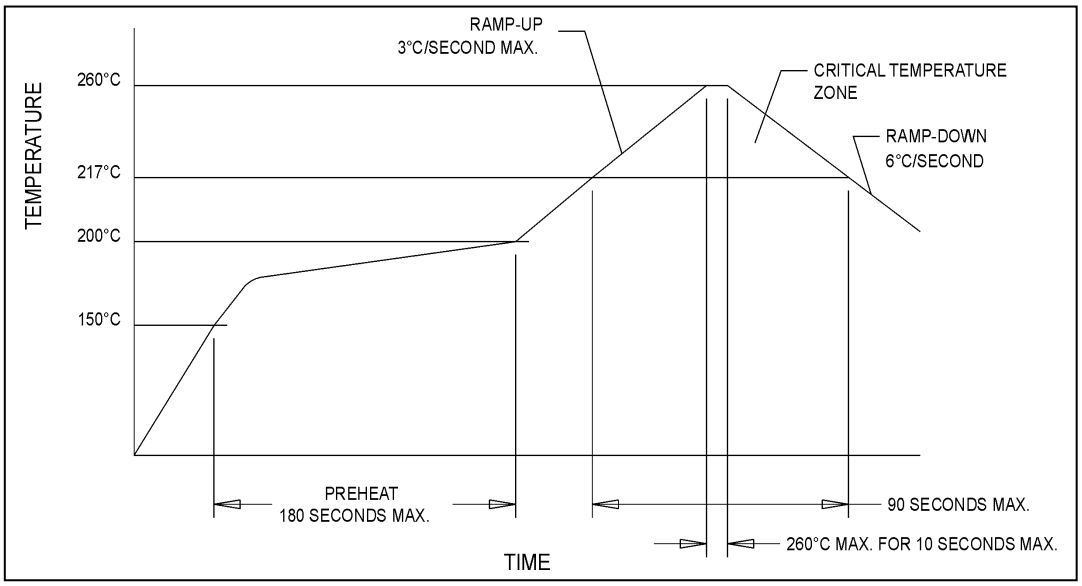
I. GENERAL & ELECTRICAL REQUIREMENTS:

1. TECHNOLOGY: 3rd Overtone Crystal – DSPLL Circuit
2. FREQUENCY: 644.531300 MHz
3. OVERALL FREQUENCY STABILITY: ± 50ppm (Includes initial tolerance, deviation over temperature, supply voltage, shock & vibration, and. aging)
4. OPERATING TEMPERATURE RANGE: -20°C to +70°C
5. OPERATING VOLTAGE (Vcc): 3.3 V ± 5%
6. OPERATING CURRENT: 125 mA max.
7. OUTPUT TYPE: Differential LVPECL Compatible
8. SYMMETRY: 45/55% ref. to Vcc-1.3
9. RISE/FALL TIME: 0.35 nS max. ref. to 20% to 80%
10. OUTPUT LOGIC LEVELS: V_{OL} = 1.630 V max. V_{OH} = 1.020 V min.
11. OUTPUT LOAD: 50 ohms to Vcc-2 V
12. PHASE JITTER (1-Sigma): 0.3 pS typical. (12 kHz to 20 MHz)
13. STARTUP TIME: 10.0 ms Max.
14. ENABLE/DISABLE FUNCTION (Pad 1): Enabled outputs = Logic "0"
    Disabled outputs = Logic "1"
15. PHASE NOISE (Typical): 10 Hz (–50 dBc/Hz), 100 Hz (-80 dBc/Hz), 1 kHz (–106 dBc/Hz), 10 kHz (–117 dBc/Hz), 100 kHz (–120 dBc/Hz), 1MHz (-130 dBc/Hz), 10MHz (-147 dBc/Hz)

II. ENVIRONMENTAL/MECHANICAL REQUIREMENTS:

1. SHOCK: MIL-STD-202, Method 213, Condition C.
2. VIBRATION: MIL-STD-202, Methods 201 & 204.
3. SOLDERABILITY: Per EIAJ-STD-002
4. HERMETICITY: 1 X 10^{-8} atm cc/sec min.
5. REFLOW SOLDER CONDITIONS: 260°C for 10 seconds max.
6. PACKAGE: 6- pad leadless ceramic. RoHS compliant.

III. REFLOW PROFILE:



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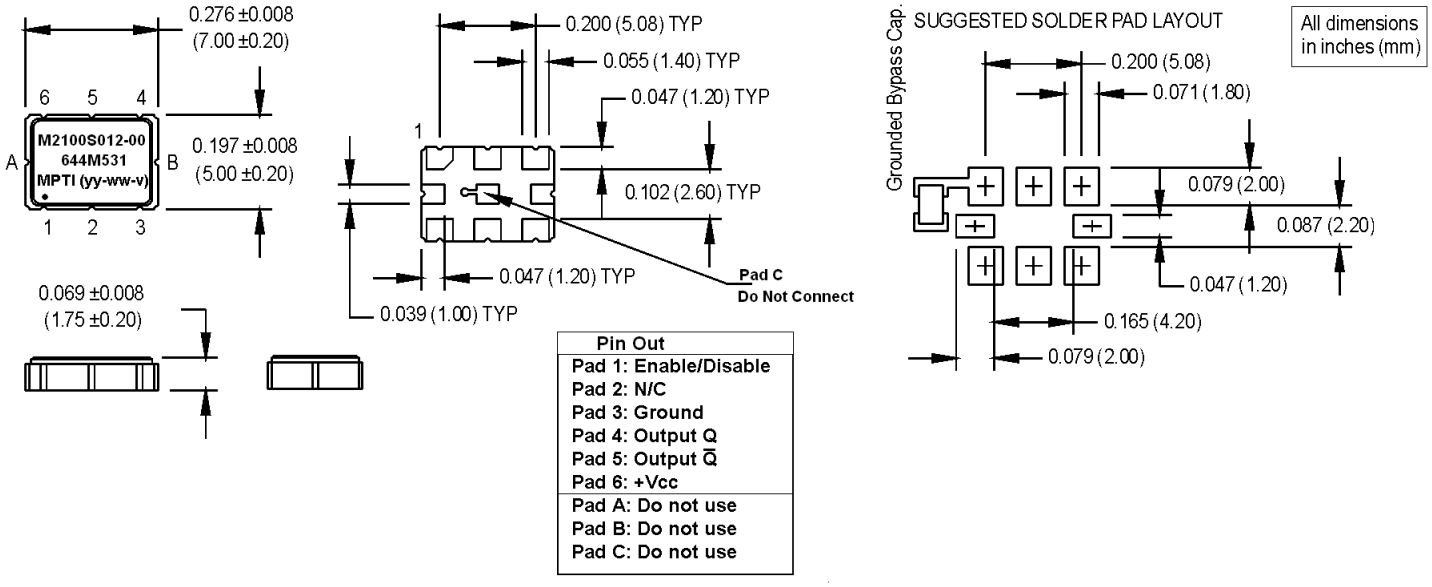
IV. DIMENSIONS:



Pin Out
Pad 1: Enable/Disable
Pad 2: N/C
Pad 3: Ground
Pad 4: Output Q
Pad 5: Output $\overline{Q}$
Pad 6: +Vcc
Pad A: Do not use
Pad B: Do not use
Pad C: Do not use