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# SPECIFICATION FOR SMT OSCILLATOR MtronPTI P/N M2002S148

#### I. GENERAL & ELECTRICAL REQUIREMENTS:

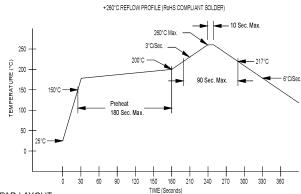
- 1. FREQUENCY OF OPERATION: 125.000000 MHz (AT cut 3<sup>rd</sup> overtone crystal)
- 2. FREQUENCY STABILITY: ± 50 ppm max. (Includes initial tolerance, deviation over temperature, voltage variations, and aging)
- 3. OPERATING TEMPERATURE RANGE: -40°C to +85°C
- 4. OPERATING VOLTAGE: 3.3 V ±5%
- 5. OPERATING CURRENT: 45 mA max.
- 6. OUTPUT TYPE: HCMOS/TTL Compatible
- 7. OUTPUT LOAD: 15 pF max.
- 8. SYMMETRY: 45/55% max. ref . to 1/2 Vdd
- 9. RISE/FALL TIME: 3 nS max., 0.5 V to 2.4 V; 5 nS max., 10% to 90% Vdd
- 10. OUTPUT LOGIC LEVELS:  $V_{OL} = 10\%$  Vdd max.  $V_{OH} = 90\%$  Vdd min.
- 11. PHASE JITTER: 40 pS max. (Integrated phase noise from 100 Hz to 5 MHz). PLL design not acceptable.
- 12. TRISTATE FUNCTION: Pad 1 Logic Level "1" or floating, output enabled

Pad 1 Logic Level "0", output disabled to a high impedance state

### **II. ENVIRONMENTAL & MECHANICAL REQUIREMENTS:**

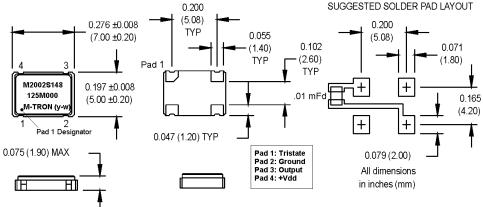
- 1. SHOCK: MIL-STD-202, Method 213, Condition C.
- 2. VIBRATION: MIL-STD-202, Methods 201 & 204.
- 3. HERMETICITY: 1X 10 -8 atm cc/sec min.
- 4. STORAGE TEMPERATURE: -40°C to +85°C
- 5. SOLDERABILITY: Per EIAJ-STD-002
- 6. MAXIMUM SOLDERING CONDITIONS: See Figure 1.
- 7. PACKAGE: 4-pad 5 X 7 mm leadless. RoHS compliant.

## **III. DIMENSIONS:**



Note: Exceeding these limits can damage the device

Figure 1



#### IV. DATA SHEET REVISION TABLE:

| IVI DYCON CONTROL INCOME. |      |     |   |
|---------------------------|------|-----|---|
| Date                      | Rev. | PCN | Details of Revision   |
| 9/29/03                   | 0    | N/A | Original release.   |
| 9/15/05                   | Α    | N/A | Added Maximum Soldering Conditions information. Supersedes 9/29/03 release. |