



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.mtron.com](http://www.mtron.com)

## SPECIFICATION FOR SMT 9 x 14 OSCILLATOR MtronPTI P/N: M2015S034

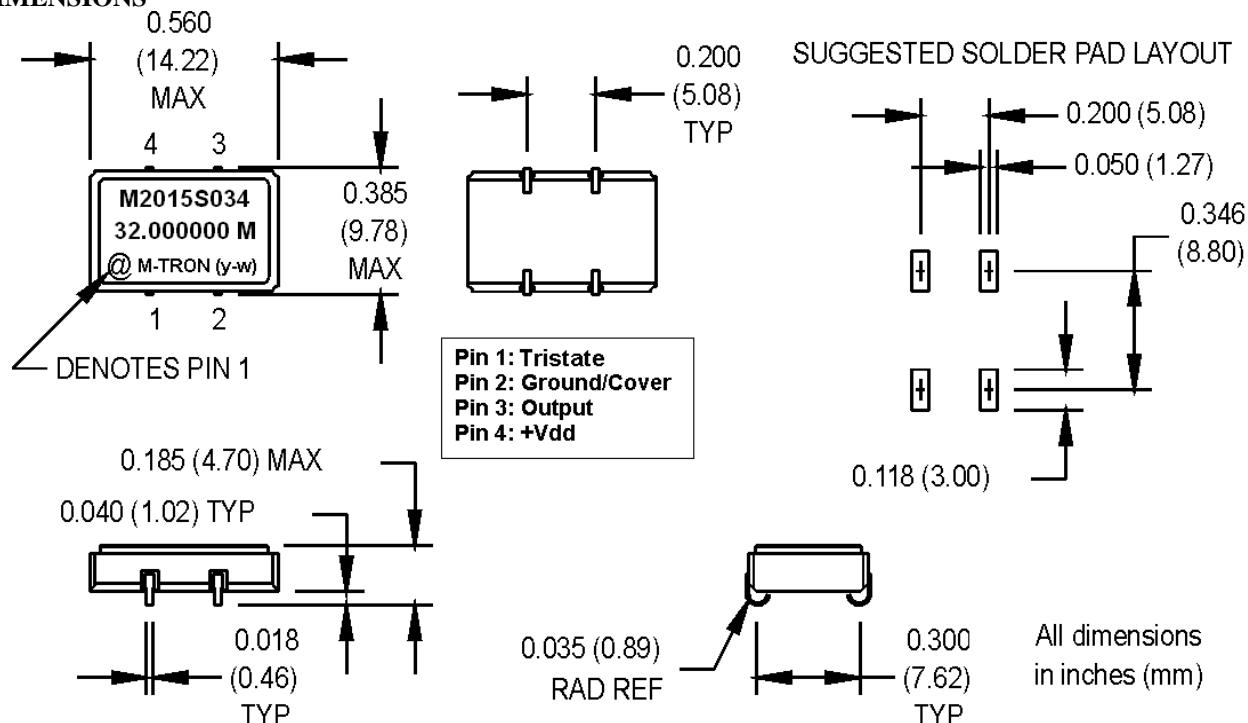
### I. GENERAL & ELECTRICAL REQUIREMENTS:

1. FREQUENCY: 32.000000 MHz
2. FREQUENCY STABILITY OVER TEMPERATURE:  $\pm 100$  ppm
3. OPERATING TEMPERATURE RANGE:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
4. OPERATING VOLTAGE (Vdd):  $5.0\text{ V} \pm 10\%$
5. OPERATING CURRENT: 20 mA max.
6. OUTPUT TYPE: HCMOS Compatible
7. SYMMETRY: 45/55% ref. to  $\frac{1}{2}\text{Vdd}$
8. OUTPUT LOAD: 50 pF max.
9. RISE/FALL TIME: 7 nS max. ref. 10% to 90%
10. OUTPUT LOGIC LEVELS:  $V_{OL} = 10\% \text{ Vdd max.}$   $V_{OH} = 90\% \text{ Vdd min.}$
11. JITTER (Cycle-to-Cycle): 20 pS RMS max.
12. TRISTATE FUNCTION (Pad 1): Logic level "1", or floating: normal output  
Logic level "0": output disables to high impedance

### II. ENVIRONMENTAL & MECHANICAL REQUIREMENTS:

1. SHOCK: MIL-STD-202, Method 213, Condition C.
2. VIBRATION: MIL-STD-202, Methods 201 & 204.
3. HERMETICITY:  $1 \times 10^{-8}$  atm cc/sec min.
4. SOLDERABILITY: Per EIAJ-STD-002
5. REFLOW SOLDER CONDITIONS:  $260^{\circ}\text{C}$  for 10 seconds max.
6. PACKAGE: 4 -J lead ceramic package with tinned leads. (M7S type)
7. SCREENING: HiRel Screening required per Hamilton Product Specs.

### III. DIMENSIONS





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.mtron.com](http://www.mtron.com)

**SPECIFICATION FOR SMT 9 x 14 OSCILLATOR**  
**MtronPTI P/N: M2015S034**

**IV. Product Revision Table:**

Date	Revision	PCN Number	Details of Revision
1-13-05	A	10065	Drop In Substrate mounting in the Ceramic package changed to a “sandwich” design to improve CTE issues in product testing and use in HiRel environments. Manual dispensing of epoxy changed to an automated process
1-13-05			Product Part Number changed to track product improvement. Product part number previously was 1517-997
2-18-08	B	N/A	Datasheet updated to reflect Hamilton Specification update to Revision P – Rise and Fall time changed to 7ns from 10