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

SPECIFICATION FOR SMT LVDS OSCILLATOR
MtronPTI P/N M6300S020

I. GENERAL & ELECTRICAL REQUIREMENTS:

1. FREQUENCY OF OPERATION: 100.000000 MHz
2. FREQUENCY STABILITY: ± 25 ppm max. (Includes initial tolerance, deviation over temperature, shock, vibration, supply, reflow (2X), and 20 year aging).
3. OPERATING TEMPERATURE RANGE: -55°C to +125°C (Case temperature)
4. OPERATING VOLTAGE (Vcc): 3.3 V ± 0.165 V
5. OPERATING CURRENT: 100 mA max.
6. OUTPUT TYPE: Differential LVDS
7. SYMMETRY: 45/55% ref. to 50% of waveform.
8. RISE/FALL TIME: 0.50 nS max. ref. to 20% to 80% of waveform
9. OUTPUT SKEW: 20 ps typical
10. COMMON MODE OUTPUT VOLTAGE: 1.2 V typical
11. OUTPUT LOAD: 100 ohms differential
12. DIFFERENTIAL OUTPUT VOLTAGE: 250 mV min. 350 mV typical, 450 mV max.
13. PHASE JITTER (RMS): 2.0 pS RMS max. (100 Hz to 35 MHz)
14. G-SENSITIVITY: 2.5 ppb/G typical
15. START UP TIME: 10 mS max.
16. ENABLE/DISABLE FUNCTION (Pad 1): Logic "1" (2.51 V min.) enables outputs.
    Logic "0" (0.5 V max.) disables outputs.
17. PHASE NOISE (Typical): 10 Hz –70 dBc/Hz, 100 Hz –90 dBc/Hz, 1 kHz –120 dBc/Hz, 10 kHz –133 dBc/Hz, 100 kHz –142 dBc/Hz, 1 MHz –150 dBc/Hz, 10 MHz –150 dBc/Hz.

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: -62°C to +125°C
5. ALTITUDE: Varying from –2500 ft (16.06 psia), and +70,000 ft (0.649 psia) with excursions to 79,000 ft (0.426psia) and returning to 70,000 ft with a rate of change in altitude of 5,000 ft min.
6. SOLDERABILITY: Per EIAJ-STD-002
7. MAXIMUM SOLDERING CONDITIONS: See Figure 1.
8. PACKAGE: 6- pad leadless ceramic 5 X 7 mm.

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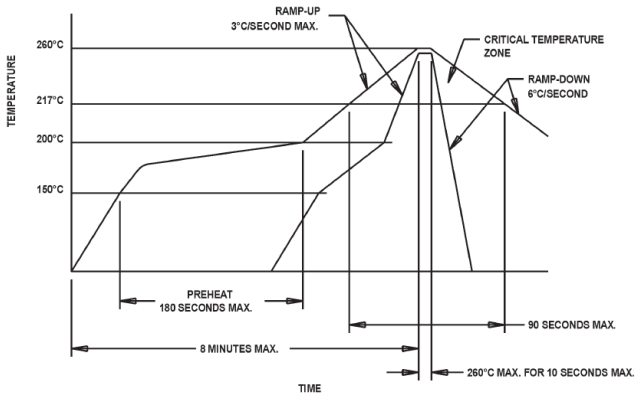
III. MAXIMUM SOLDERING CONDITIONS:

Figure 1



IV. DIMENSIONS: