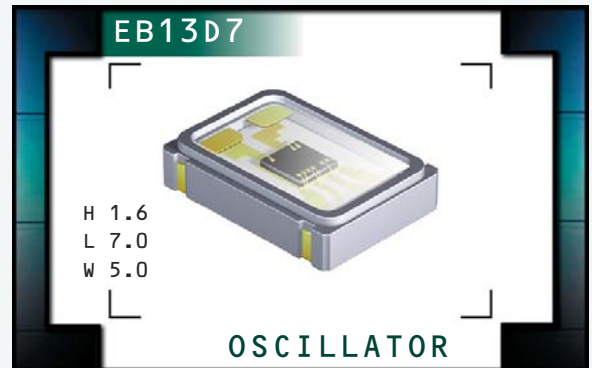


EB13D7 Series



ECLIPTEK[®]
CORPORATION

- RoHS Compliant (Pb-Free)
- Low Jitter
- Ceramic SMD package
- 3.3V supply voltage
- LVHCMOS
- Stability to ± 50 ppm
- Standby Function
- Available in tube or tape and reel



NOTES

ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| Frequency Range | 150.000MHz, 155.520MHz, 156.250MHz, 159.380MHz, 187.500MHz, 212.500MHz, and 250.000MHz |
| Operating Temperature Range | 0°C to 70°C |
| Storage Temperature Range | -55°C to 125°C |
| Supply Voltage (V_{DD}) | 3.3V _{DC} ± 0.3 Vdc |
| Input Current | 85mA Maximum |
| Frequency Tolerance / Stability | Inclusive of all conditions: Calibration Tolerance at 25°C, Frequency Stability over the Operating Temperature Range, Supply Voltage Change, Output Load Change, First Year Aging at 25°C, Shock, and Vibration ± 50 ppm Maximum |
| Output Voltage Logic High (V_{OH}) | 90% of V _{DD} Min. I _{OH} = -8mA |
| Output Voltage Logic Low (V_{OL}) | 10% of V _{DD} Max. I _{OL} = +8mA |
| Rise / Fall Time | 20% to 80% of Waveform 400 pSec Typical; 1nSec Maximum |
| Duty Cycle | at 50% of Waveform 50 ± 5 (%) |
| Load Drive Capability | 15pF HCMOS Load Maximum |
| Tri-State Input Voltage | No Connection (Internal Pull-Up Resistor) V _{IH} : $\geq 70\%$ of V _{DD} V _{IL} : $\leq 30\%$ of V _{DD} Enables Output Enables Output Disables Output: High Impedance |
| Standby Current | Disabled Output: High Impedance 600 μ A Maximum |
| Start Up Time | 10mSec Maximum |
| RMS Phase Jitter | F _J = 12kHz to 20MHz 1pSec Maximum |

| MANUFACTURER | CATEGORY | SERIES | PACKAGE | VOLTAGE | CLASS | REV. DATE |
|----------------|------------|--------|---------|---------|-------|-----------|
| ECLIPTEK CORP. | OSCILLATOR | EB13D7 | CERAMIC | 3.3V | OS4L | 07/06 |

PART NUMBERING GUIDE

EB13D7 D 2 H - 150.000M TR

FREQUENCY TOLERANCE / STABILITY
D=±50ppm Maximum over 0°C to +70°C

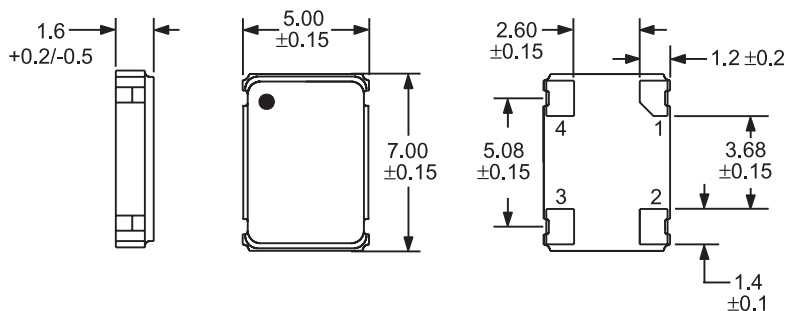
PACKAGING OPTIONS
Blank=Bulk, TR=Tape and Reel (Standard)

FREQUENCY

DUTY CYCLE
2=50 ±5(%)

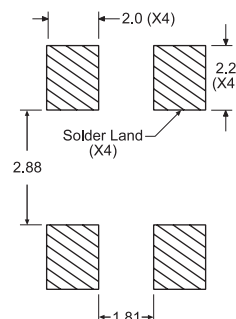
OUTPUT CONTROL FUNCTION
H=Tri-State

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



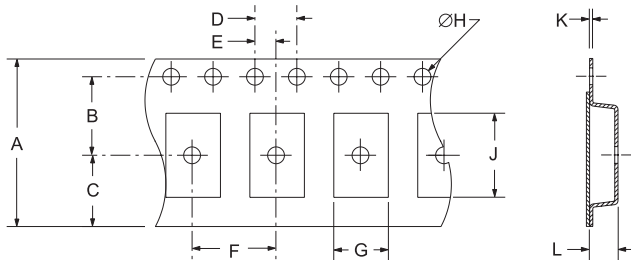
Pin 1: Tri-State
Pin 2: Case Ground
Pin 3: Output
Pin 4: Supply Voltage

SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS

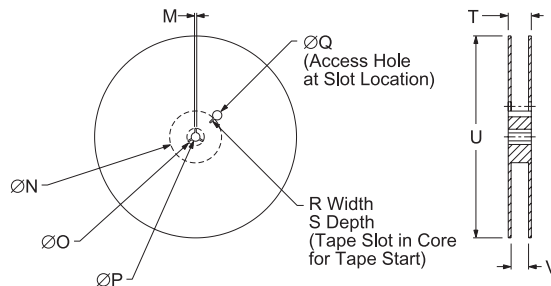


Tolerances = ±0.1

TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



| TAPE | A | B | C | D | E |
|------|--------|-----------|---------|---------|------|
| | 16+3-1 | 7.5±.1 | 6.75±.1 | 4 ±.1 | 2±.1 |
| F | G | H | J | K | L |
| 8±.1 | B0* | 1.5 +.1-0 | A0* | .3 ±.05 | K0* |



| REEL | M | N | O | P | Q |
|---------|---------|----------|----------|----------|----------|
| | 1.5 MIN | 50 MIN | 20.2 MIN | 13±.2 | 40 MIN |
| R | S | T | U | V | QTY/REEL |
| 2.5 MIN | 10 MIN | 22.4 MAX | 360 MAX | 16.4+2-0 | 1,000 |

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

| Characteristic | Specification |
|------------------------------|---------------------------------------|
| Fine Leak Test | MIL-STD-883, Method 1014, Condition A |
| Gross Leak Test | MIL-STD-883, Method 1014, Condition C |
| Mechanical Shock | MIL-STD-202, Method 213, Condition C |
| Vibration | MIL-STD-883, Method 2007, Condition A |
| Solderability | MIL-STD-883, Method 2002 |
| Temperature Cycling | MIL-STD-883, Method 1010 |
| Resistance to Soldering Heat | MIL-STD-202, Method 210 |
| Resistance to Solvents | MIL-STD-202, Method 215 |

MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: XX.XXX M
Frequency in MHz (5 Digits Maximum + Decimal)

Line 3: XX Y ZZ
Week of Year
Last Digit of Year
Ecliptek Manufacturing Identifier

| MANUFACTURER | CATEGORY | SERIES | PACKAGE | VOLTAGE | CLASS | REV. DATE |
|----------------|------------|--------|---------|---------|-------|-----------|
| ECLIPTEK CORP. | OSCILLATOR | EB13D7 | CERAMIC | 3.3V | OS4L | 07/06 |