

Marketing Bulletin

DATE: January 1st, 2006
TO: All Sales Personnel
FROM: Mark Stoner
RE: Product Termination

To all concerned parties,

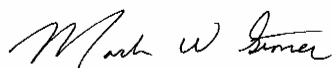
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective January 1st, 2006:

| Series | Description | Recommended Replacement |
|---------------|-----------------------------|--------------------------------|
| EB13C8 | 3.3V 5 x 7mm SMD Oscillator | EC26 |

In compliance with our End of Life (EOL) policy, this will serve as advanced notice of product termination. New orders will not be accepted after April 1st, 2006, with delivery to conclude by July 1st 2006.

If there are any questions pertaining to this bulletin, please feel free to contact me. Thank you again for your cooperation.

Best Regards,



Mark W. Stoner
Director of Marketing
Ecliptek Corporation

EB13C8 Series



- RoHS Compliant (Pb-Free)
- Low Jitter
- Ceramic SMD package
- 3.3V supply voltage
- LVHCMOS
- Stability to 20ppm
- Standby Function
- Available in tube or tape and reel



OBSOLETE

ELECTRICAL SPECIFICATIONS

| | | |
|---|---|--|
| Frequency Range | 19.440MHz to 125.000MHz and 125.009MHz, 125.009375MHz, 125.010MHz, 127MHz, 128MHz, 130MHz, 132MHz, 133MHz, 133.333MHz, 137.472MHz, 142.850MHz, 150MHz, 155.520MHz and 156.250MHz | |
| Operating Temperature Range | Not available with ± 20 ppm option > 106.250MHz | 0°C to 70°C -40°C to 85°C |
| Storage Temperature Range | | -55°C to 125°C |
| Supply Voltage (V_{DD}) | | 3.3V _{DC} $\pm 10\%$ |
| Input Current | 19.440MHz to 35.000MHz 35.001MHz to 70.000MHz 70.001MHz to 125.000MHz 125.001MHz to 156.250MHz | 10mA Maximum 20mA Maximum 40mA Maximum 60mA 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 | ± 100 ppm, ± 50 ppm, ± 25 ppm or ± 20 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 w/15pF HCMOS Load from 19.440MHz to 35.000MHz 20% to 80% of Waveform w/30pF HCMOS Load from 19.440MHz to 35.000MHz 20% to 80% of Waveform w/HCMOS Load from 35.001MHz to 50.000MHz 20% to 80% of Waveform w/HCMOS Load from 50.001MHz to 80.000MHz 20% to 80% of Waveform w/HCMOS Load from 80.001MHz to 125.000MHz 20% to 80% of Waveform w/HCMOS Load from 125.009MHz to 156.250MHz | 5 nSec Maximum 7 nSec Maximum 5 nSec Maximum 4 nSec Maximum 2 nSec Maximum 1 nSec Maximum |
| Duty Cycle | at 50% of Waveform at 50% of Waveform ≤ 125.000 MHz at 50% of waveform, at 25°C, at 3.3Vdc > 125.000MHz | 50 ± 10 (%) 50 ± 5 (%) 50 ± 5 (%) |
| Load Drive Capability | ≤ 35.000 MHz > 35.001MHz | 30pF HCMOS Load Maximum 15pF HCMOS Load Maximum |
| Tri-State Input Voltage | No Connection 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 | 10 μ A Maximum |
| Start Up Time | | 10 mSec Maximum |
| RMS Phase Jitter | 19.440MHz to 40.000MHz, F _J = 12kHz to 20MHz 40.001MHz to 70.000MHz, F _J = 12kHz to 20MHz 70.001MHz to 156.250MHz, F _J = 12kHz to 20MHz | 5 pSec Maximum 3 pSec Maximum 1 pSec Maximum |

| | | | | | | |
|--------------------------------|------------------------|------------------|--------------------|-----------------|---------------|--------------------|
| MANUFACTURER ECLIPTEK CORP. | CATEGORY OSCILLATOR | SERIES EB13C8 | PACKAGE CERAMIC | VOLTAGE 3.3V | CLASS OS2H | REV. DATE 04/05 |
|--------------------------------|------------------------|------------------|--------------------|-----------------|---------------|--------------------|

PART NUMBERING GUIDE

EB13C8 F 2 H - 40.000M TR

FREQUENCY TOLERANCE / STABILITY

- C=±100ppm Maximum over 0°C to +70°C
- D=±50ppm Maximum over 0°C to +70°C
- E=±25ppm Maximum over 0°C to +70°C
- F=±20ppm Maximum over 0°C to +70°C
- G=±100ppm Maximum over -40°C to +85°C
- H=±50ppm Maximum over -40°C to +85°C
- J=±25ppm Maximum over -40°C to +85°C
- K=±20ppm Maximum over -40°C to +85°C

PACKAGING OPTIONS

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

FREQUENCY

OUTPUT CONTROL FUNCTION

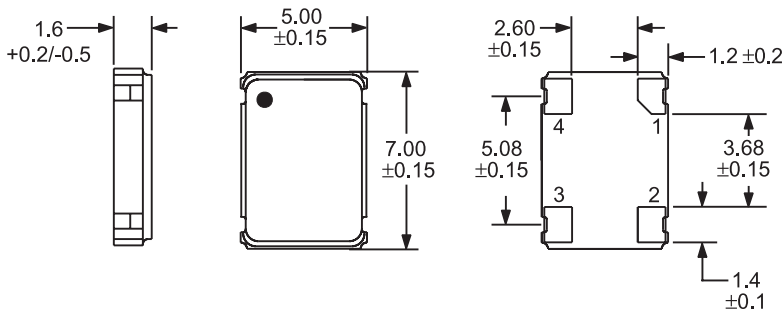
H=Tri-State

DUTY CYCLE

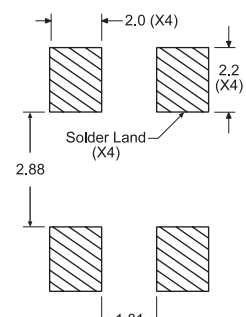
- 1=50 ±10(%)
- 2=50 ±5(%)

OBSOLETE

MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



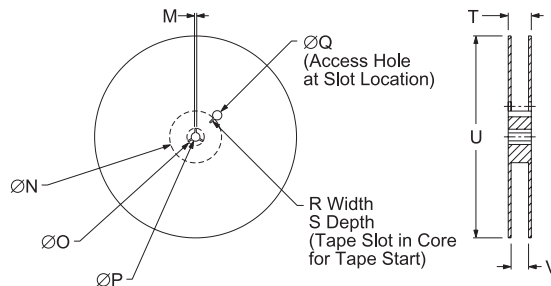
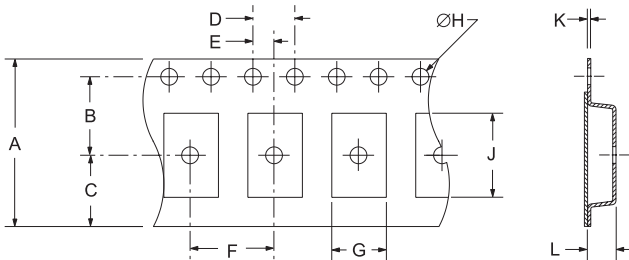
SUGGESTED SOLDER PAD LAYOUT
ALL DIMENSIONS IN MILLIMETERS



Tolerances = ±0.1

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

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 | EB13C8 | CERAMIC | 3.3V | OS2H | 04/05 |