

## Marketing Bulletin

**DATE:** January 1<sup>st</sup>, 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 1<sup>st</sup>, 2006:

<b>Series</b>	<b>Description</b>	<b>Recommended Replacement</b>
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 1<sup>st</sup>, 2006, with delivery to conclude by July 1<sup>st</sup> 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

<b>Frequency Range</b>	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	
<b>Operating Temperature Range</b>	Not available with $\pm 20$ ppm option > 106.250MHz	0°C to 70°C -40°C to 85°C
<b>Storage Temperature Range</b>		-55°C to 125°C
<b>Supply Voltage (V<sub>DD</sub>)</b>		3.3V <sub>DC</sub> $\pm 10\%$
<b>Input Current</b>	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
<b>Frequency Tolerance / Stability</b>	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	$\pm 100$ ppm, $\pm 50$ ppm, $\pm 25$ ppm or $\pm 20$ ppm Maximum
<b>Output Voltage Logic High (V<sub>OH</sub>)</b>		90% of V <sub>DD</sub> Min. I <sub>OH</sub> = -8mA
<b>Output Voltage Logic Low (V<sub>OL</sub>)</b>		10% of V <sub>DD</sub> Max. I <sub>OL</sub> = +8mA
<b>Rise / Fall Time</b>	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
<b>Duty Cycle</b>	at 50% of Waveform at 50% of Waveform $\leq 125.000$ MHz at 50% of waveform, at 25°C, at 3.3Vdc > 125.000MHz	50 $\pm 10$ (%) 50 $\pm 5$ (%) 50 $\pm 5$ (%)
<b>Load Drive Capability</b>	$\leq 35.000$ MHz > 35.001MHz	30pF HCMOS Load Maximum 15pF HCMOS Load Maximum
<b>Tri-State Input Voltage</b>	No Connection V <sub>IH</sub> : $\geq 70\%$ of V <sub>DD</sub> V <sub>IL</sub> : $\leq 30\%$ of V <sub>DD</sub>	Enables Output Enables Output Disables Output: High Impedance
<b>Standby Current</b>	Disabled Output: High Impedance	10 $\mu$ A Maximum
<b>Start Up Time</b>		10 mSec Maximum
<b>RMS Phase Jitter</b>	19.440MHz to 40.000MHz, F <sub>J</sub> = 12kHz to 20MHz 40.001MHz to 70.000MHz, F <sub>J</sub> = 12kHz to 20MHz 70.001MHz to 156.250MHz, F <sub>J</sub> = 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
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## 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

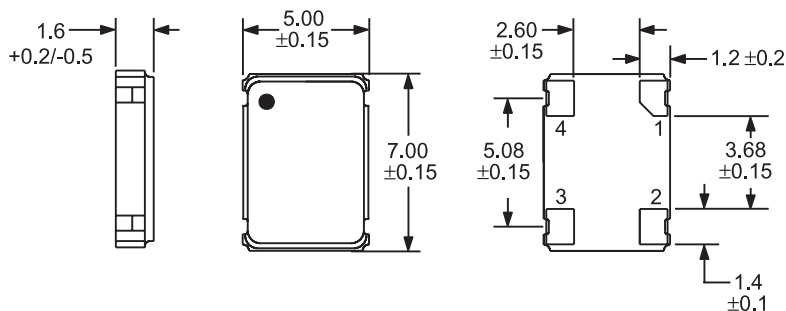
H=Tri-State

#### DUTY CYCLE

1=50±10(%)  
 2=50±5(%)

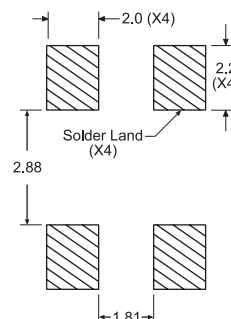
# OBSOLETE

#### MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



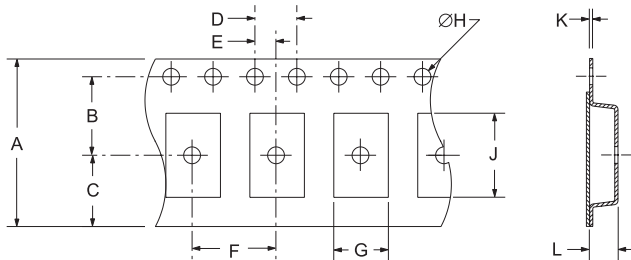
Pin 1: Tri-State  
 Pin 2: Case Ground  
 Pin 3: Output  
 Pin 4: Supply Voltage

#### SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS

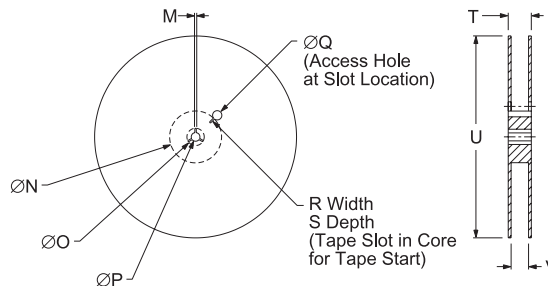


Tolerances = ±0.1

#### 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

Fine Leak Test  
 Gross Leak Test  
 Mechanical Shock  
 Vibration  
 Solderability  
 Temperature Cycling  
 Resistance to Soldering Heat  
 Resistance to Solvents

##### Specification

MIL-STD-883, Method 1014, Condition A  
 MIL-STD-883, Method 1014, Condition C  
 MIL-STD-202, Method 213, Condition C  
 MIL-STD-883, Method 2007, Condition A  
 MIL-STD-883, Method 2002  
 MIL-STD-883, Method 1010  
 MIL-STD-202, Method 210  
 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