

## Marketing Bulletin

**DATE:** February 17<sup>th</sup>, 2009  
**TO:** All Sales Personnel  
**FROM:** Bob Lostaunau  
**RE:** Product Termination

To all concerned parties,

This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective February 17<sup>th</sup>, 2009:

<b>Series</b>	<b>Description</b>	<b>Recommended Replacement</b>
EB13D7	RoHS Compliant (Pb-free) Low Jitter High Frequency 3.3V 4-Pad 5 x 7mm Ceramic SMD LVHCMOS Oscillator	<a href="#">EC26 Series</a>
EB15D7	RoHS Compliant (Pb-free) Low Jitter High Frequency 2.5V 4-Pad 5 x 7mm Ceramic SMD LVHCMOS Oscillator	<a href="#">EC27 Series</a>

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 June 1<sup>st</sup>, 2009, with delivery to conclude by September 30<sup>th</sup>, 2009.

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

Best Regards,

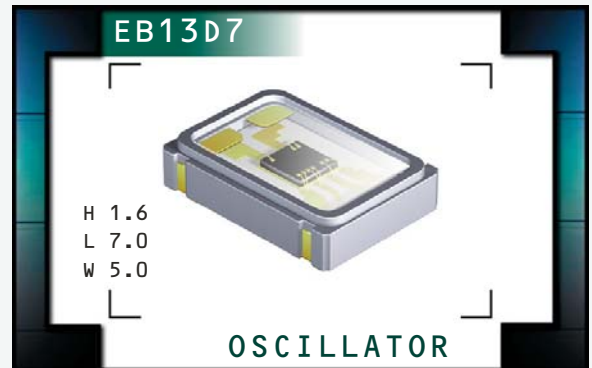
Bob Lostaunau  
Quality Assurance Technician  
Ecliptek Corporation

# EB13D7 Series



ECLIPTEK<sup>®</sup>  
CORPORATION

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



## NOTES

**OBSOLETE**

## ELECTRICAL SPECIFICATIONS

<b>Frequency Range</b>	150.000MHz, 155.520MHz, 156.250MHz, 159.380MHz, 187.500MHz, 212.500MHz, and 250.000MHz	
<b>Operating Temperature Range</b>	0°C to 70°C	
<b>Storage Temperature Range</b>	-55°C to 125°C	
<b>Supply Voltage (V<sub>DD</sub>)</b>	3.3V <sub>DC</sub> $\pm 0.3$ Vdc	
<b>Input Current</b>	85mA 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	$\pm 50$ 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	400 pSec Typical; 1nSec Maximum
<b>Duty Cycle</b>	at 50% of Waveform	50 $\pm 5$ (%)
<b>Load Drive Capability</b>	15pF HCMOS Load Maximum	
<b>Tri-State Input Voltage</b>	No Connection (Internal Pull-Up Resistor) 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	600 $\mu$ A Maximum
<b>Start Up Time</b>	10mSec Maximum	
<b>RMS Phase Jitter</b>	F <sub>J</sub> = 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 - 150.00M TR**

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

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

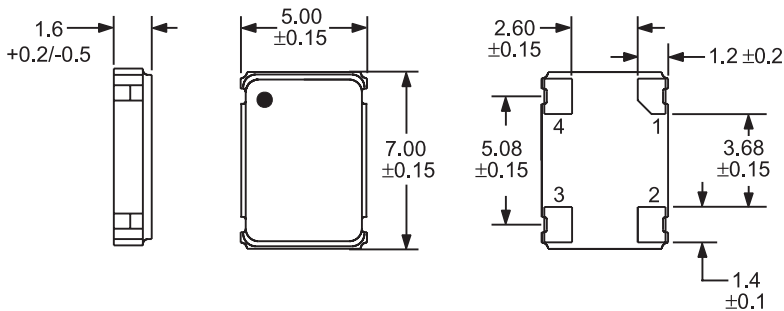
**FREQUENCY**

**DUTY CYCLE**  
2=50 ±5(%)

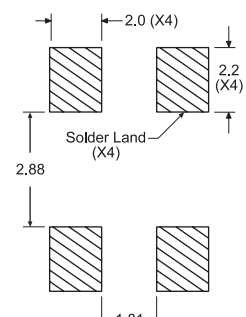
**OUTPUT CONTROL FUNCTION**  
H=Tri-State

OBSOLETE

**MECHANICAL DIMENSIONS**  
ALL DIMENSIONS IN MILLIMETERS



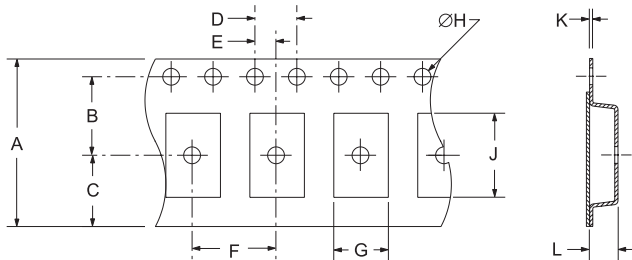
**SUGGESTED SOLDER PAD LAYOUT**  
ALL DIMENSIONS IN MILLIMETERS



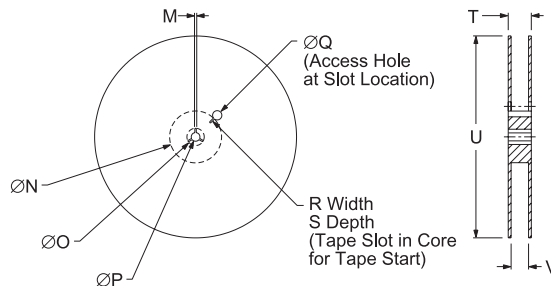
Tolerances = ±0.1

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	EB13D7	CERAMIC	3.3V	OS4L	07/06