

## Product EOL Announcement

The Product EOL Announcement signifies that a product series has entered the final phase of the Ecliptek Product Life Cycle, and serves as advance notice of product termination per the Ecliptek End of Life (EOL) policy.

Ecliptek Corporation announces End of Life initiation for the following product series with the intent of discontinuing its availability.

EOL Series	Description
EB13D7	RoHS Compliant (Pb-free) Low Jitter High Frequency 3.3V 4-Pad 5 x 7mm Ceramic SMD LVHCMOS Oscillator

### EOL Timeline

The last date Ecliptek will accept orders (Stage 2) and the last date orders may be scheduled for shipment (Stage 3) are listed in the table below.

Stage 1 EOL Announce Date	Stage 2 Last Date to Order	Stage 3 Last Date to Ship
17-February-2009	1-June-2009	30-September-2009

### Alternative Products

In order to fulfill your requirements beyond this product's discontinuation, we invite you to evaluate the recommended alternative Ecliptek product series referenced below. Please click on the link to view the data sheet.

Alternative Series	Description
<a href="#">EC26</a>	RoHS Compliant (Pb-free) 3.3V 4 Pad 5mm x 7mm Ceramic SMD LVCMOS Oscillator

### Automated EOL Notification

Ecliptek offers automated notification of Product EOL Announcements. Place part numbers for which you'd like to receive EOL Notifications into your personalized [Parts List](#) on our website and we'll email you when EOL is announced.

Please do not hesitate to contact us if you have any questions or need further assistance.

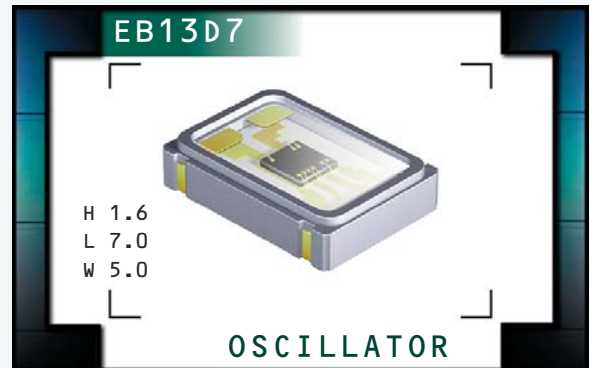
Ecliptek Global Customer Support Team  
(800) 433-1280 x300  
[customersupport@ecliptek.com](mailto:customersupport@ecliptek.com)

# 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 ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EB13D7	PACKAGE CERAMIC	VOLTAGE 3.3V	CLASS OS4L	REV. DATE 07/06
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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)

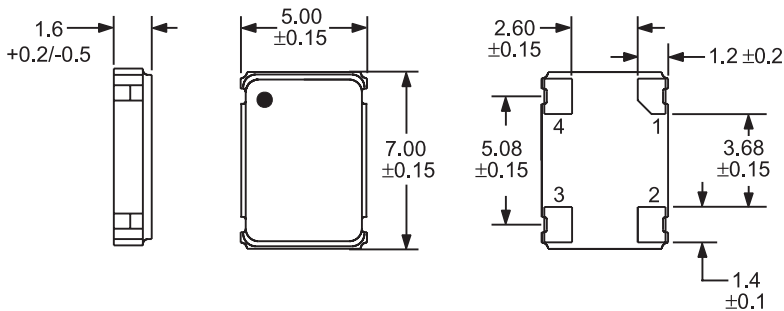
**FREQUENCY**

**DUTY CYCLE**  
2=50 ±5(%)

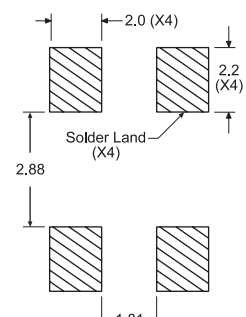
**OUTPUT CONTROL FUNCTION**  
H=Tri-State

OBSOLETE

**MECHANICAL DIMENSIONS**  
ALL DIMENSIONS IN MILLIMETERS



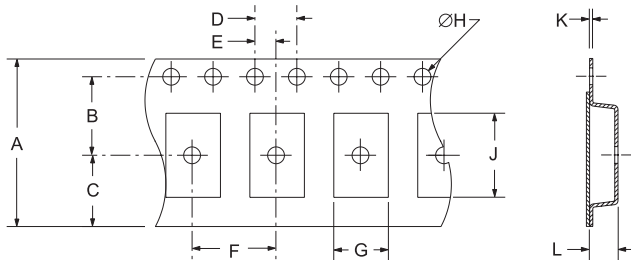
**SUGGESTED SOLDER PAD LAYOUT**  
ALL DIMENSIONS IN MILLIMETERS



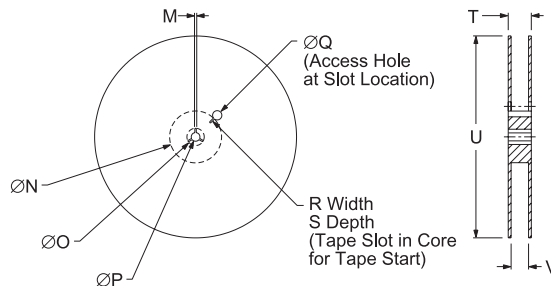
Tolerances = ±0.1

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