

## 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>
E13D8	RoHS Compliant (Pb-free) 6-Pad 5 x 7mm Ceramic SMD 3.3V LVPECL Oscillator	<a href="#">E13C7</a>
EL13D8	RoHS Compliant (Pb-free) 6-Pad 5 x 7mm Ceramic SMD 3.3V LVDS Oscillator	<a href="#">EL13C7</a>
E15D8	RoHS Compliant (Pb-free) 6-Pad 5 x 7mm Ceramic SMD 2.5V LVPECL Oscillator	<a href="#">E15C7</a>
EL15D8	RoHS Compliant (Pb-free) 6-Pad 5 x 7mm Ceramic SMD 2.5V LVDS Oscillator	<a href="#">EL15C7</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,

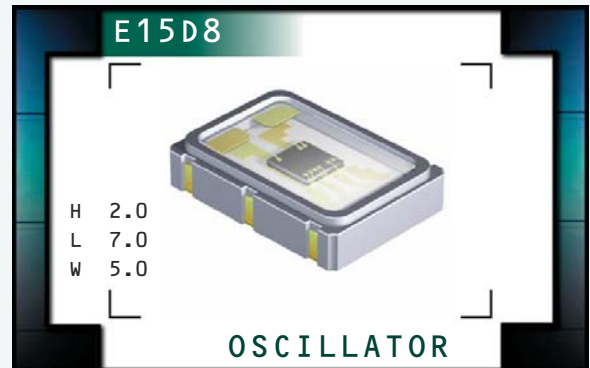
Bob Lostaunau  
Quality Assurance Technician  
Ecliptek Corporation

# E15D8 Series



ECLIPTEK<sup>®</sup>  
CORPORATION

- RoHS Compliant (Pb-Free)
- LVPECL Output Oscillators
- 2.5V Supply Voltage
- Ceramic 6-pad SMD Package
- Stability to  $\pm 25$ ppm
- Tri-State Output
- Complementary Output
- Available on Tape and Reel
- Wide Range of Available Frequencies



**OBSOLETE**

## ELECTRICAL SPECIFICATIONS

<b>Nominal Frequency</b>	75MHz, 77.76MHz, 80MHz, 100MHz, 106.25MHz, 125MHz, 150MHz, 155.52MHz, 156.25MHz, 159.375MHz, 187.5MHz, 212.5MHz, 250MHz, 311.04MHz, 312.5MHz	
<b>Operating Temperature Range</b>	0°C to 70°C, or -40°C to +85°C	
<b>Storage Temperature Range</b>	-55°C to 125°C	
<b>Supply Voltage (V<sub>CC</sub>)</b>	2.5V <sub>DC</sub> $\pm 5\%$	
<b>Input Current</b>	With Load	75mA 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, 1st Year Aging at 25°C, Shock, and Vibration	$\pm 50$ ppm Maximum, or $\pm 25$ ppm Maximum
<b>Output Voltage Logic High (V<sub>OH</sub>)</b>	V <sub>CC</sub> -1.4V <sub>DC</sub> Minimum, V <sub>CC</sub> -1.2V <sub>DC</sub> Typical, V <sub>CC</sub> -0.9V <sub>DC</sub> Maximum	
<b>Output Voltage Logic Low (V<sub>OL</sub>)</b>	V <sub>CC</sub> -1.7V <sub>DC</sub> Minimum, V <sub>CC</sub> -1.85V <sub>DC</sub> Typical, V <sub>CC</sub> -2.0V <sub>DC</sub> Maximum	
<b>Peak to Peak Output Voltage Swing</b>	600mVdc Minimum, 800mVdc Typical, 1000mVdc Maximum	
<b>Rise Time / Fall Time</b>	20% to 80% of waveform	300pSec Typical, 600pSec Maximum
<b>Duty Cycle</b>	at 50% of waveform	50 $\pm 5$ (%)
<b>Load Drive Capability</b>	50 Ohms into V <sub>CC</sub> -2.0V <sub>DC</sub>	
<b>Logic Control / Additional Output</b>	Tri-State and Complementary Output	
<b>Tri-State Input Voltage</b>	V <sub>IH</sub> of 70% of V <sub>CC</sub> Minimum No Connection V <sub>IL</sub> of 30% of V <sub>CC</sub> Maximum	Enables Output Enables Output Disables Output: High Impedance
<b>Standby Current</b>	Disabled Output, High Impedance, Without Load	600 $\mu$ A Maximum
<b>Start Up Time</b>	10 mSeconds Maximum	
<b>RMS Phase Jitter</b>	FJ = 12kHz to 20MHz	0.7pSec Typical, 1 pSec Maximum
<b>Typical Phase Noise</b>	Fo=156.250MHz	-60dBc/Hz at 10Hz Offset -90dBc/Hz at 100Hz Offset -115dBc/Hz at 1kHz Offset -129dBc/Hz at 10kHz Offset -130dBc/Hz at 100kHz Offset -131dBc/Hz at 1MHz Offset -148dBc/Hz at 10MHz Offset

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES E15D8	PACKAGE CERAMIC	VOLTAGE 2.5V	CLASS OS4P	REV. DATE 10/07
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PART NUMBERING GUIDE

E15D8 D 2 F - 155.520M TR

FREQUENCY TOLERANCE & STABILITY/  
OPERATING TEMPERATURE RANGE

C=±25ppm Maximum over 0°C to +70°C  
D=±50ppm Maximum over 0°C to +70°C  
G=±25ppm Maximum over -40°C to +85°C  
D=±50ppm Maximum over -40°C to +85°C

AVAILABLE OPTIONS

Blank= Tubes  
TR= Tape and Reel (Standard)

FREQUENCY

LOGIC CONTROL/ADDITIONAL OUTPUT

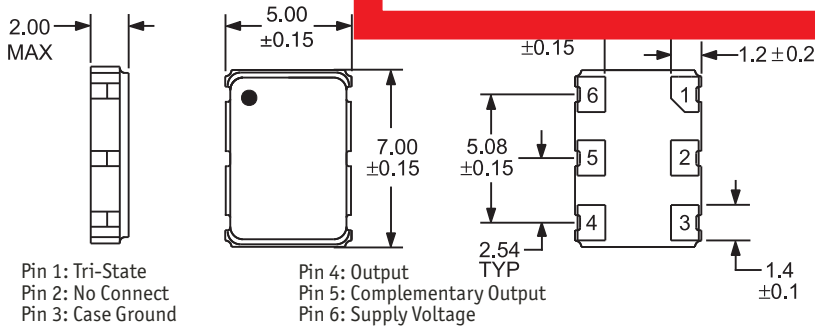
F= Tri-State and Complementary Output

DUTY CYCLE

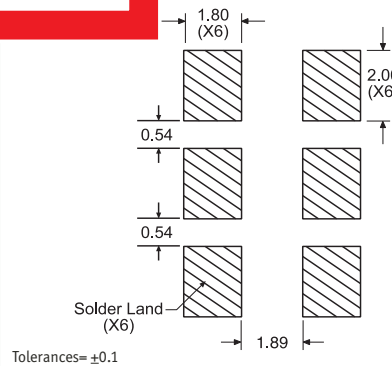
50 ±5(%)

**OBSOLETE**

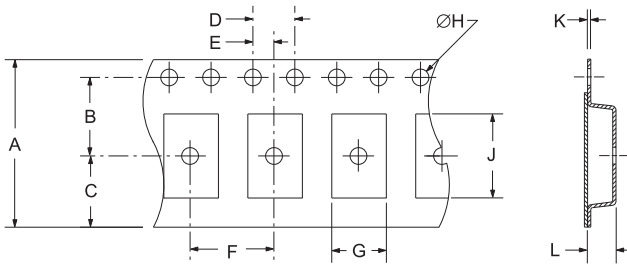
MECHANICAL DIMENSIONS  
ALL DIMENSIONS IN MILLIMETERS



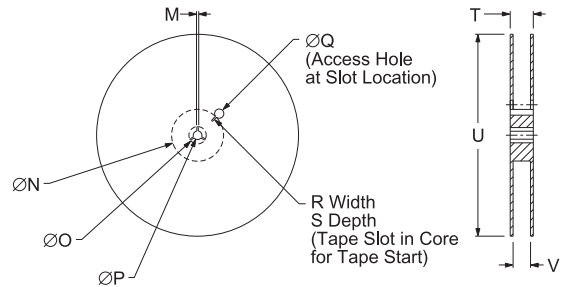
SUGGESTED SOLDER PAD LAYOUT  
ALL DIMENSIONS IN MILLIMETERS



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	E15D8	CERAMIC	2.5V	OS4P	10/07