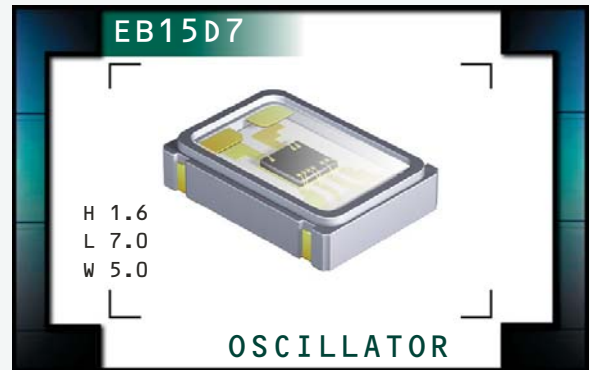


# EB15D7 Series



ECLIPTEK<sup>®</sup>  
CORPORATION

- RoHS Compliant (Pb-Free)
- Low Jitter
- Ceramic SMD package
- 2.5V supply voltage
- LVHCMOS
- Stability to  $\pm 50$ ppm
- Standby Function
- Available in tube or tape and reel



## NOTES

## 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 (<math>V_{DD}</math>)</b>	2.5V <sub>DC</sub> $\pm 5\%$
<b>Input Current</b>	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, First Year Aging at 25°C, Shock, and Vibration $\pm 50$ ppm Maximum
<b>Output Voltage Logic High (<math>V_{OH}</math>)</b>	90% of $V_{DD}$ Min. $I_{OH} = -8$ mA
<b>Output Voltage Logic Low (<math>V_{OL}</math>)</b>	10% of $V_{DD}$ Max. $I_{OL} = +8$ mA
<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) $V_{IH} : \geq 70\%$ of $V_{DD}$ $V_{IL} : \leq 30\%$ of $V_{DD}$ 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>	$F_J = 12$ kHz to 20MHz 1pSec Maximum

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EB15D7	PACKAGE CERAMIC	VOLTAGE 2.5V	CLASS OS4M	REV. DATE 07/06
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## PART NUMBERING GUIDE

### EB15D7 D 2 H - 150.000M TR

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

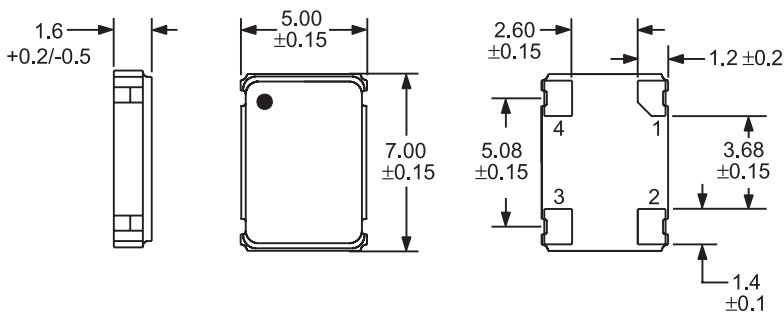
**PACKAGING OPTIONS**  
Blank=Bulk, TR=Tape and Reel (Standard)

**FREQUENCY**

**DUTY CYCLE**  
2=50 ±5(%)

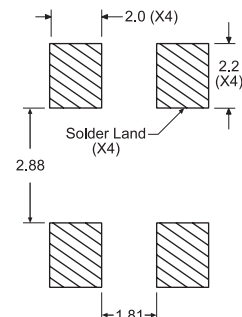
**OUTPUT CONTROL FUNCTION**  
H=Tri-State

#### MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



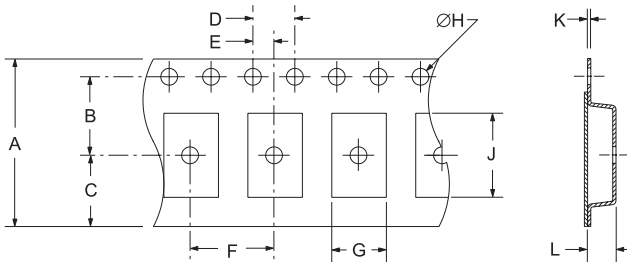
Pin 1: Tri-State  
Pin 2: Case Ground  
Pin 3: Output  
Pin 4: Supply Voltage

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

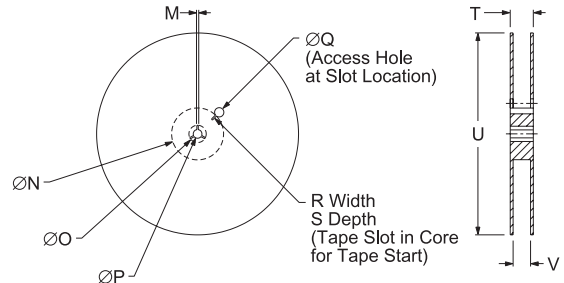


Tolerances = ±0.1

#### 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	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	EB15D7	CERAMIC	2.5V	OS4M	07/06