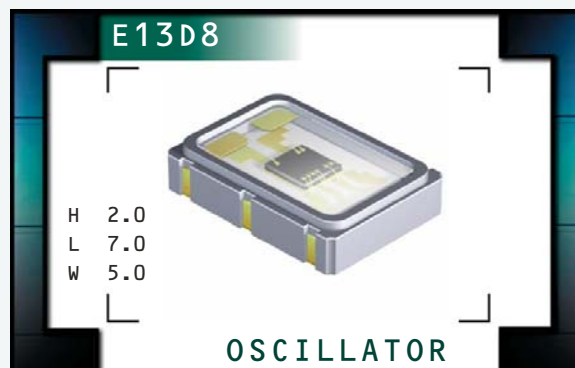


E13D8 Series



www.DataSheet4U.com®
ECLIPTEK
CORPORATION

- RoHS Compliant (Pb-Free)
- LVPECL Output Oscillators
- 3.3V Supply Voltage
- Ceramic 6-pad SMD Package
- Stability to ± 25 ppm
- Tri-State Output
- Complementary Output
- Available on Tape and Reel
- Wide Range of Available Frequencies



ELECTRICAL SPECIFICATIONS

Nominal Frequency	75MHz, 77.76MHz, 80MHz, 100MHz, 106.25MHz, 125MHz, 150MHz, 155.52MHz, 156.25MHz, 159.375MHz, 187.5MHz, 212.5MHz, 250MHz, 311.04MHz, 312.5MHz	
Operating Temperature Range	0°C to +70°C, or -40°C to +85°C	
Storage Temperature Range	-55°C to 125°C	
Supply Voltage (V_{CC})	3.3V _{DC} $\pm 5\%$	
Input Current	With Load	75mA Maximum
Frequency Tolerance / Stability	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	± 50 ppm Maximum, or ± 25 ppm Maximum
Output Voltage Logic High (V_{OH})	$V_{CC} - 1.4V_{DC}$ Minimum, $V_{CC} - 1.2V_{DC}$ Typical, $V_{CC} - 0.9V_{DC}$ Maximum	
Output Voltage Logic Low (V_{OL})	$V_{CC} - 1.7V_{DC}$ Minimum, $V_{CC} - 1.85V_{DC}$ Typical, $V_{CC} - 2.0V_{DC}$ Maximum	
Peak to Peak Output Voltage Swing	600mVdc Minimum, 800mVdc Typical, 1000mVdc Maximum	
Rise Time / Fall Time	20% to 80% of waveform	300pSec Typical, 600pSec Maximum
Duty Cycle	at 50% of waveform	50 ± 5 (%)
Load Drive Capability	50 Ohms into $V_{CC} - 2.0V_{DC}$	
Logic Control / Additional Output	Tri-State and Complementary Output	
Tri-State Input Voltage	V_{IH} of 70% of V_{CC} Minimum	Enables Output
	No Connection	Enables Output
	V_{IL} of 30% of V_{CC} Maximum	Disables Output: High Impedance
Standby Current	Disabled Output, High Impedance, Without Load	600 μ A Maximum
Start Up Time	10 mSeconds Maximum	
RMS Phase Jitter	FJ = 12kHz to 20MHz	0.7pSec Typical, 1 pSec Maximum
Typical Phase Noise	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
E13D8

PACKAGE
CERAMIC

VOLTAGE
3.3V

CLASS
OS4N

REV. DATE
10/07

PART NUMBERING GUIDE

E13D8 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

H=±50ppm Maximum over -40°C to +85°C

AVAILABLE OPTIONS

Blank= Tubes

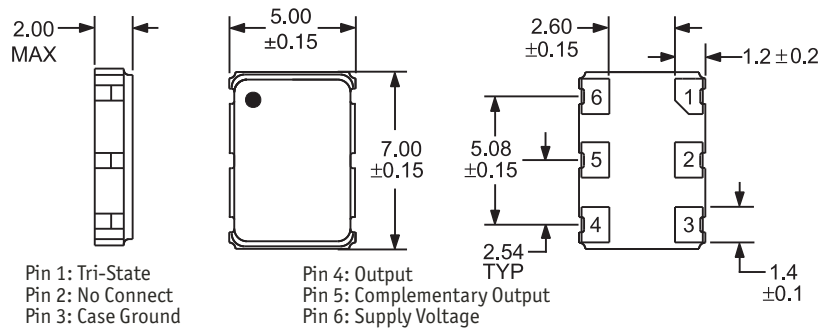
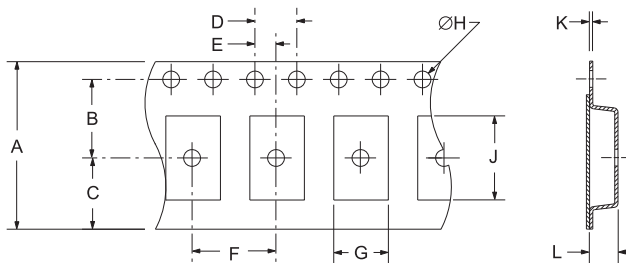
TR= Tape and Reel (Standard)

FREQUENCY**LOGIC CONTROL/ADDITIONAL OUTPUT**

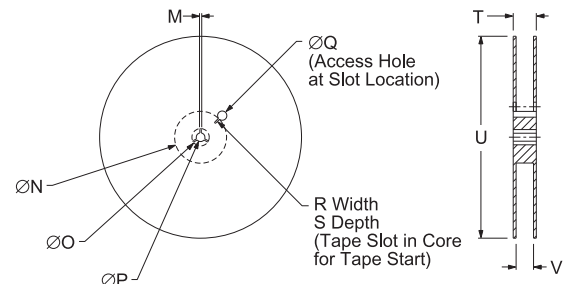
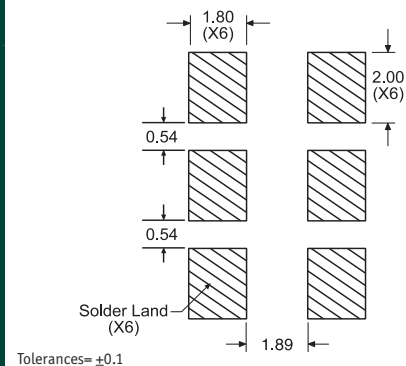
F= Tri-State and Complementary Output

DUTY CYCLE

2=50±5(%)

MECHANICAL DIMENSIONS
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*

SUGGESTED SOLDER PAD LAYOUT
ALL DIMENSIONS IN MILLIMETERS

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 SPECIFICATIONSCharacteristic

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

Eclipse Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	E13D8	CERAMIC	3.3V	OS4N	10/07