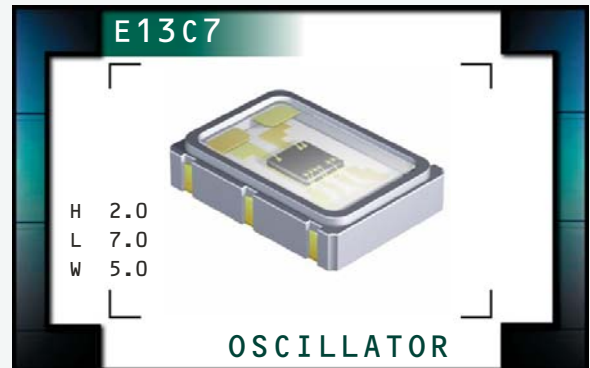


E13C7 Series



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 (MHz) 77.760M, 78.125M, 80M, 80.157M, 85M, 87.125M, 90M, 100M, 106.25M, 110M, 119M, 120M, 122.888M, 124.4M, 125M, 127M, 128M, 133M, 133.333M, 137.472M, 150M, 155.52M, 156.25M, 159.375M, 161.1328M, 162.5M, 166M, 170M, 175M, 176.83816M, 187.5M, 187.509375M, 200M, or 212.5MHz

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 75mA Maximum

Frequency Tolerance / Stability Inclusive of All Conditions: Calibration Tolerance at 25°C, ± 100 ppm, ± 50 ppm, or
Frequency Stability over the Operating Temperature Range, ± 25 ppm Maximum
Supply Voltage Change, Output Load Change, 1st Year
Aging at 25°C, Shock, and Vibration

Output Voltage Logic High (V_{OH}) 0°C to 85°C $V_{CC} - 1.025V_{DC}$ Minimum
-40°C to 0°C $V_{CC} - 1.085V_{DC}$ Minimum

Output Voltage Logic Low (V_{OL}) 0°C to 85°C $V_{CC} - 1.620V_{DC}$ Maximum
-40°C to 0°C $V_{CC} - 1.555V_{DC}$ Maximum

Rise Time / Fall Time 20% to 80% of waveform 300pSec Typical, 700pSec 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 Without Load 30 μ A Maximum

Start Up Time 10 mSeconds Maximum

RMS Phase Jitter FJ = 12kHz to 20MHz 0.4pSec Typical, 1 pSec Maximum

Typical Phase Noise Fo=156.250MHz
-60dBc/Hz at 10Hz Offset
-95dBc/Hz at 100Hz Offset
-125dBc/Hz at 1kHz Offset
-143dBc/Hz at 10kHz Offset
-145dBc/Hz at 100kHz Offset
-145dBc/Hz at 1MHz Offset
-146dBc/Hz at 10MHz Offset

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
E13C7

PACKAGE
CERAMIC

VOLTAGE
3.3V

CLASS
OS1M

REV. DATE
01/07

PART NUMBERING GUIDE

E13C7 E 2 F - 155.520M TR

**FREQUENCY TOLERANCE & STABILITY/
OPERATING TEMPERATURE RANGE**

C=±100ppm Maximum over 0°C to +70°C
 D=±50ppm Maximum over 0°C to +70°C
 E=±25ppm Maximum over 0°C to +70°C
 G=±100ppm Maximum over -40°C to +85°C
 H=±50ppm Maximum over -40°C to +85°C
 J=±25ppm Maximum over -40°C to +85°C (*)

DUTY CYCLE

2=50±5(%)

AVAILABLE OPTIONS

Blank=Tubes
 TR=Tape and Reel (Standard)

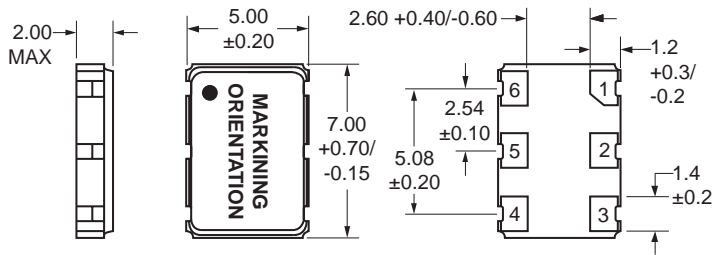
FREQUENCY

LOGIC CONTROL/ADDITIONAL OUTPUT

F=Tri-State and Complementary Output

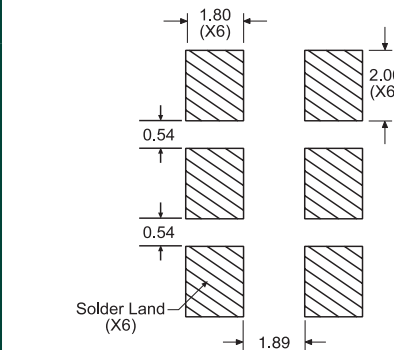
(*) Not available over Nominal Frequency range of 176.83816MHz to 212.500MHz

MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS

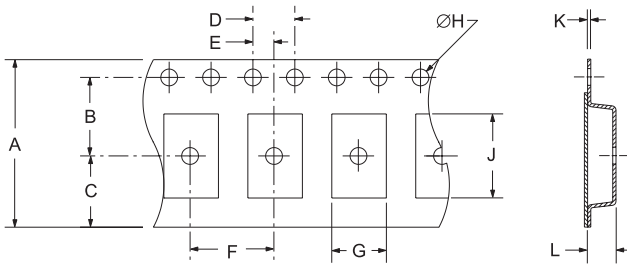


Pin 1: Tri-State
 Pin 2: No Connect
 Pin 3: Case Ground
 Pin 4: Output
 Pin 5: Complementary Output
 Pin 6: Supply Voltage

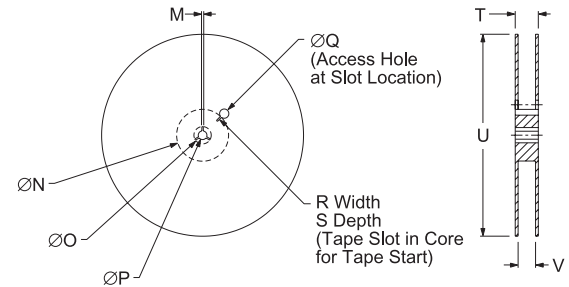
SUGGESTED SOLDER PAD LAYOUT
ALL DIMENSIONS IN MILLIMETERS



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	E13C7	CERAMIC	3.3V	OS1M	01/07