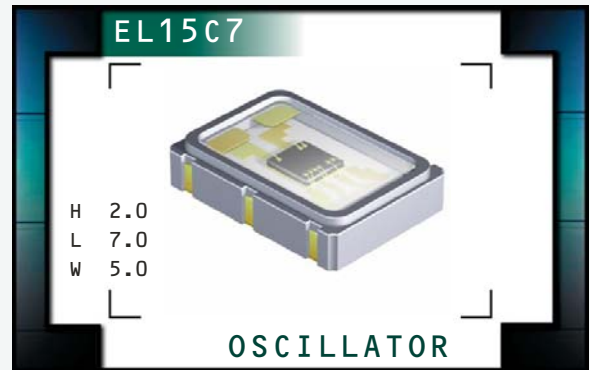


EL15C7 Series



ECLIPTEK[®]
CORPORATION

- RoHS Compliant (Pb-Free)
- LVDS Output Oscillators
- 2.5V 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)	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})	2.5V _{DC} $\pm 5\%$	
Input Current	With Load	65mA 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	± 100 ppm, ± 50 ppm, or ± 25 ppm Maximum
Output Voltage Logic High (V_{OH})	1.43V _{DC} Typical, 1.6V _{DC} Maximum	
Output Voltage Logic Low (V_{OL})	1.1V _{DC} Typical, 0.9V _{DC} Minimum	
Differential Output Voltage (V_{OD})	247mV Minimum, 330mV Typical, 454mV Maximum	
Offset Voltage (V_{OS})	1.125V Minimum, 1.250V Typical, 1.375V Maximum	
Rise Time / Fall Time	20% to 80% of waveform	300pSec Typical, 700pSec Maximum
Differential Output Error (ΔV_{OD})	50mV Maximum	
Duty Cycle	at 50% of waveform or at the crossing point	50 ± 5 (%)
Offset Error (ΔV_{OS})	150mV Maximum	
Output Swing (ΔV_{OPP})	250mVdc Minimum	
Load Drive Capability	Between Output and Complementary Output	100 Ohms
Logic Control / Additional Output	Tri-State and Complementary Output	
Tri-State Input Voltage	V_{IH} of 70% of V_{CC} Minimum No Connection V_{IL} of 30% of V_{CC} Maximum	Enables Outputs Enables Outputs Disables Outputs: 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
EL15C7

PACKAGE
CERAMIC

VOLTAGE
2.5V

CLASS
OS5H

REV. DATE
01/07

PART NUMBERING GUIDE

EL15C7 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(%)

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

AVAILABLE OPTIONS

Blank=Tubes
 TR=Tape and Reel (Standard)

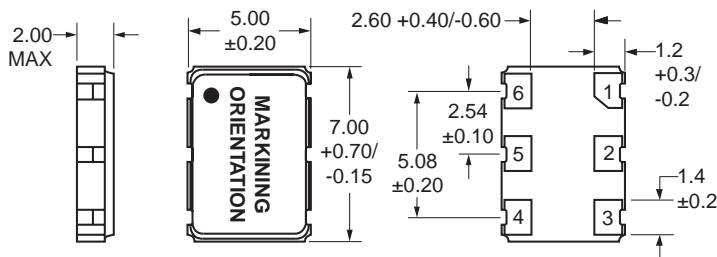
FREQUENCY

LOGIC CONTROL/ADDITIONAL OUTPUT

F=Tri-State and Complementary Output

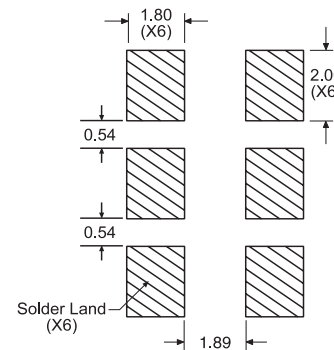
MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



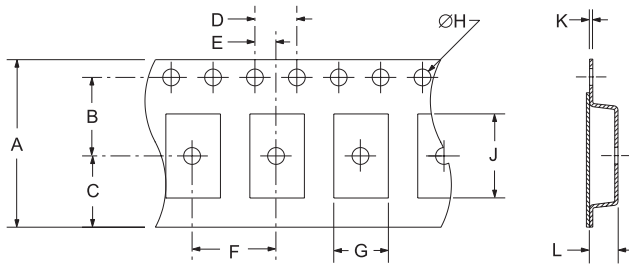
SUGGESTED SOLDER PAD LAYOUT

ALL DIMENSIONS IN MILLIMETERS

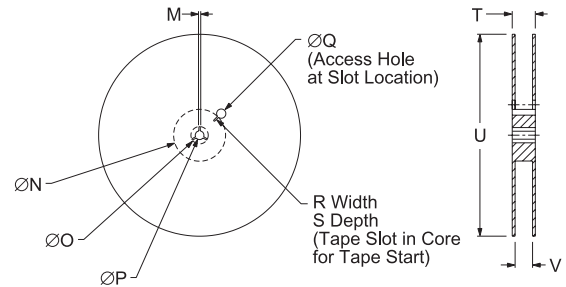


TAPE AND REEL DIMENSIONS

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

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
 Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EL15C7	CERAMIC	3.3V	OS5H	01/07