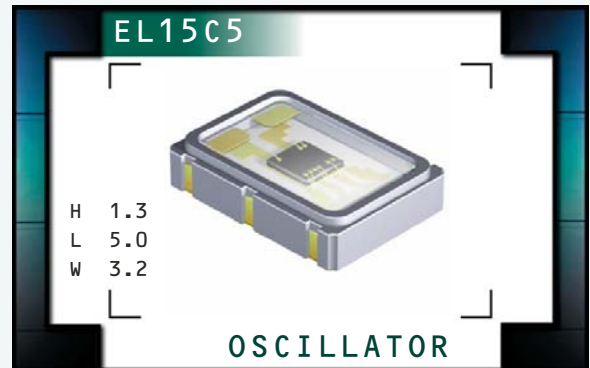


EL15C5 Series



- Crystal Clock Oscillators
- LVDS Output
- +2.5V Supply Voltage
- Complementary Output
- Tri-State Output Function
- 6 Pad Ceramic SMD Package
- Low Stand-by Current
- RoHS Compliant (Pb-Free)



ELECTRICAL SPECIFICATIONS

Nominal Frequency (MHz) 80MHz, 80.157MHz, 85MHz, 87.125MHz, 90MHz, 100MHz, 106.25MHz, 110MHz, 119MHz, 120MHz, 122.888MHz, 124.4MHz, 125MHz, 127MHz, 128MHz, 131.072MHz, 133MHz, 133.33MHz, 133.333MHz, 135MHz, 137.472MHz, 150MHz, 155.52MHz, 156.25MHz, 159.375MHz, or 161.1328MHz

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} ±5%

Input Current 63mA Maximum

Frequency Tolerance / Stability Inclusive of All Conditions: Calibration Tolerance at 25°C, ±100ppm, ±50ppm, ±25ppm, or
Frequency Stability over the Operating Temperature Range, ±20ppm Maximum
Supply Voltage Change, Output Load Change, 1st Year
Aging at 25°C, Shock, and Vibration

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 (V_{ODD}) 50mV Maximum

Duty Cycle at 50% of waveform or at the crossing point 50 ±5(%)

Offset Error (V_{OS}) 150mV Maximum

Output Swing (V_{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 Enables Outputs
No Connection Enables Outputs
 V_{IL} of 30% of V_{CC} Maximum Disables Outputs: High Impedance

Standby Current Without Load 30µA 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	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EL15C5	CERAMIC	2.5V	OS6Y	12/09

PART NUMBERING GUIDE

EL15C5 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
 F=±20ppm 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

AVAILABLE OPTIONS

Blank=Bulk
 TR=Tape & Reel

FREQUENCY

LOGIC CONTROL/ADDITIONAL OUTPUT

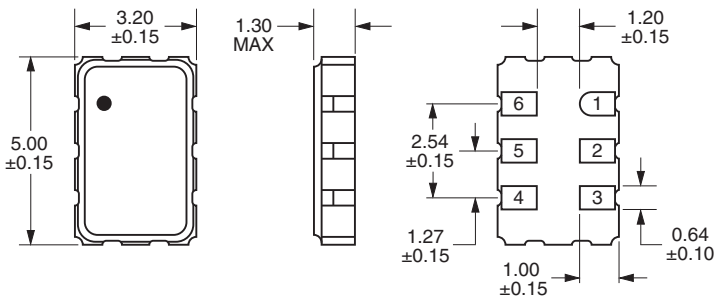
F=Tri-State and Complementary Output

DUTY CYCLE

2=50 ±5(%)

MECHANICAL DIMENSIONS

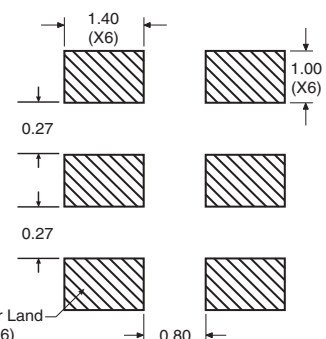
ALL DIMENSIONS IN MILLIMETERS



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

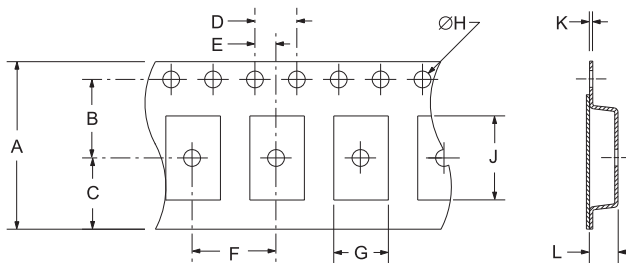
ALL DIMENSIONS IN MILLIMETERS



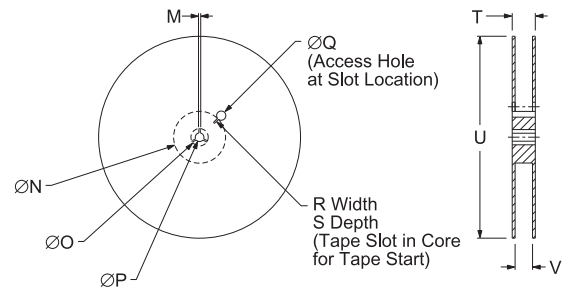
Tolerances=±0.1

TAPE AND REEL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
	16±0.3	7.5±0.1	6.75±0.1	4.0±0.1	2.0±0.1
F	G	H	J	K	L
	8.0±0.1	B0*	1.5+0.1-0.0	A0*	0.3±0.1



REEL	M	N	O	P	Q
	1.5 MIN	50 MIN	20.2 MIN	13.0±0.2	40 MIN
R	S	T	U	V	QTY/REEL
	2.5 MIN	10 MIN	22.4 MAX	360 MAX	16.4+2/-0

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
ESD Susceptibility	MIL-STD-883, Method 3015, Class 1, HBM: 1500V
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Flammability	UL94-V0
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Moisture Resistance	MIL-STD-883, Method 1004
Moisture Sensitivity	J-STD-020, MSL 1
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003
Temperature Cycling	MIL-STD-883, Method 1010, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A

MARKING SPECIFICATIONS

Line 1: EXX.XXX — Frequency in MHz (5 Digits Maximum + Decimal)

Line 2: XX Y ZZ
 — Week of Year
 — Last Digit of Year
 — Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EL15C5	CERAMIC	2.5V	OS6Y	12/09