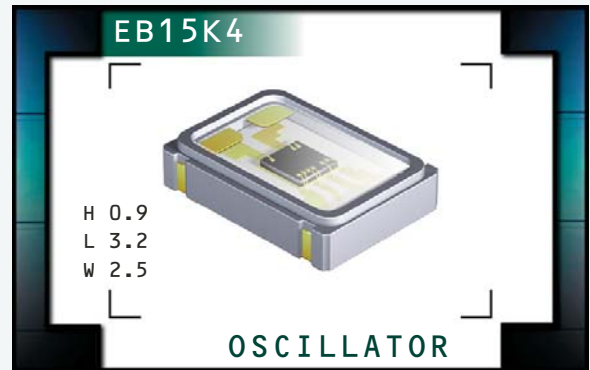


EB15K4 Series



ECLIPTEK[®]
CORPORATION

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



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range		32.768kHz
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_{DD})		2.5V _{DC} ±10%
Input Current		600µA 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, First Year Aging at 25°C, Shock, and Vibration	±100ppm Maximum ±50ppm Maximum ±25ppm Maximum ±20ppm Maximum
Output Voltage Logic High (V_{OH})		90% of V _{DD} Minimum I _{OH} = -4mA
Output Voltage Logic Low (V_{OL})		10% of V _{DD} Maximum I _{OL} = +4mA
Rise Time / Fall Time	20% to 80% of Waveform	20nSeconds Maximum
Load Drive Capability		15pF Maximum
Output Logic Type		CMOS
Duty Cycle	at 50% of Waveform	50 ±5(%)
Tri-State Input Voltage	V _{IH} : 90% of V _{DD} Minimum or No Connection V _{IL} : 10% of V _{DD} Maximum	Enables Output Disables Output: High Impedance
Standby Current	Disabled Output: High Impedance	10µA Maximum
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10mSeconds Maximum

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EB15K4

PACKAGE
CERAMIC

VOLTAGE
2.5V

CLASS
OS8Y

REV. DATE
07/11

PART NUMBERING GUIDE

EB15K4 F 2 H - 32.768K TR

FREQUENCY TOLERANCE / STABILITY

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

DUTY CYCLE

2 = 50 ±5(%)

AVAILABLE OPTIONS

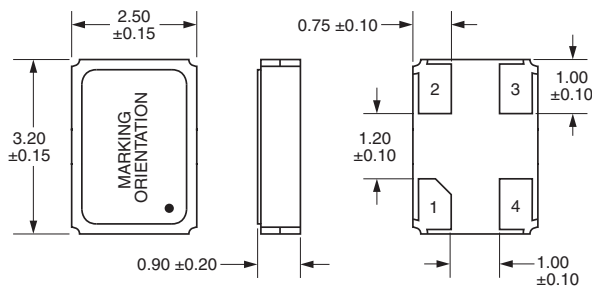
Blank = Bulk
 TR = Tape & Reel

FREQUENCY

OUTPUT CONTROL FUNCTION
 H = Tri-State (High Impedance)

MECHANICAL DIMENSIONS

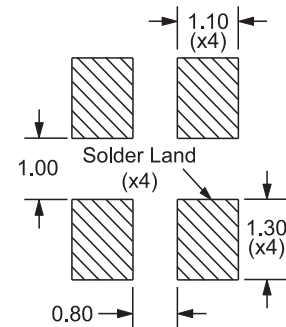
ALL DIMENSIONS IN MILLIMETERS



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

SUGGESTED SOLDER PAD LAYOUT

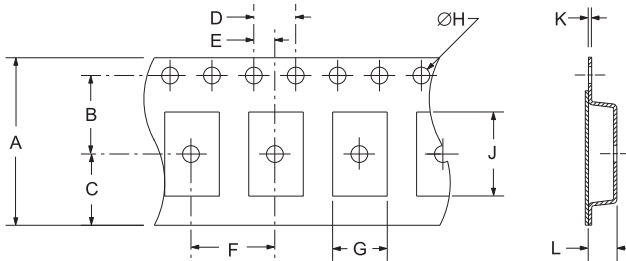
ALL DIMENSIONS IN MILLIMETERS



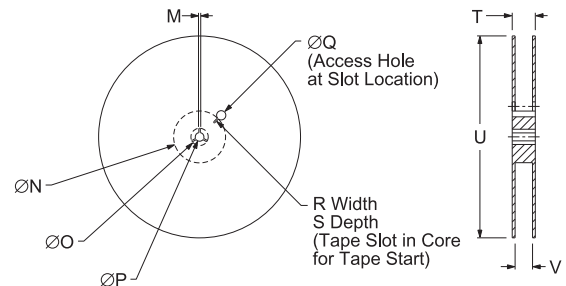
Tolerances = ±0.1

TAPE AND REEL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E	
	8.0±0.2	3.5±0.1	2.75±0.1	4.0±0.1	2.0±0.1	
	F	G	H	J	K	L
	4.0±0.1	2.7±.1	1.55+0.5	3.4±.1	0.25±0.05	1.4±.1



REEL	M	N	O	P	Q	
	1.5 MIN	50 MIN	20.2 MIN	13.0±0.5	40 MIN	
	R	S	T	U	V	QTY/REEL
	2.5 MIN	10 MIN	14.4 MAX	180 MAX	8.4+1.5-0	1,000

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

PARAMETER	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: E32.7 — Frequency in kHz (3 digits Maximum + Decimal)
 Line 2: XXXXX — Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB15K4	CERAMIC	2.5V	OS8Y	07/11