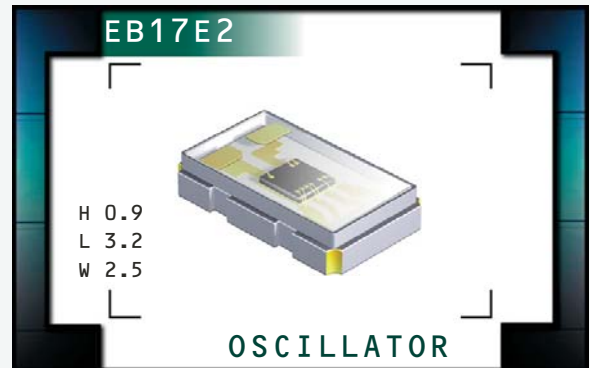


EB17E2 Series



ECLIPTEK[®]
CORPORATION

- Crystal Clock Oscillators
- LVCMOS Output
- +1.2V Supply Voltage
- Tri-State Output Function
- 4 Pad Ceramic SMD Package
- Low Stand-by Current
- RoHS Compliant (Pb-Free)



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range (F₀)	1.8432MHz, 2MHz, 2.048MHz, 2.25MHz, 3.125MHz, 3.579545MHz, 3.6864MHz, 4MHz, 4.096MHz, 4.5MHz, 6MHz, 6.144MHz, 6.25MHz, 7.3728MHz, 8MHz, 8.192MHz, 9MHz, 10MHz, 12MHz, 12.288MHz, 12.5MHz, 13MHz, 13.1072MHz, 13.5MHz, 14.31818MHz, 14.7456MHz, 15MHz, 16MHz, 16.384MHz, 16.6666MHz, 16.6667MHz, 16.667MHz, 18MHz, 20MHz, 24MHz, 24.576MHz, 25MHz, 26.2144MHz, 27MHz, 28.636363MHz, 29.4912MHz, 30MHz, 32MHz, 33.3333MHz, 36MHz, 40MHz, 48MHz, 49.152MHz, 50MHz
Operating Temperature Range (OTR)	-20°C to +70°C -40°C to +85°C
Storage Temperature Range (STR)	-55°C to +125°C
Supply Voltage (V_{DD})	1.2V _{DC} ±0.3Vdc
Input Current (I_{DD})	1.8432MHz to 20.000MHz: 2.3mA Maximum 20.001MHz to 40.000MHz: 3.0mA Maximum 40.001MHz to 50.000MHz: 3.5mA Maximum
Frequency Tolerance/Stability	Inclusive of all conditions: Calibration Tolerance at 25°C, ±100ppm Maximum Frequency Stability over the Operating Temperature Range, ±50ppm Maximum Supply Voltage Change, Output Load Change, First Year ±25ppm Maximum Aging at 25°C, Shock, and Vibration
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 (T_R/T_F)	20% to 80% of Waveform: 4nSeconds Maximum
Duty Cycle (SYM)	at 50% of Waveform: 50 ±5(%)
Load Drive Capability (C_{LOAD})	15pF Maximum
Tri-State Input Voltage	No Connection: Enables Output V _{IH} : ≥80% of V _{DD} : Enables Output V _{IL} : ≤20% of V _{DD} : Disables Output: High Impedance
Standby Current	100µA Maximum
Start Up Time (T_S)	10mSeconds Maximum
RMS Phase Jitter	F _J = 12kHz to 20MHz: 1pSeconds Maximum

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EB17E2

PACKAGE
CERAMIC

VOLTAGE
1.2V

CLASS
OS6U

REV. DATE
11/08

PART NUMBERING GUIDE

EB17E2 E 2 H - 40.000M TR

FREQUENCY TOLERANCE / STABILITY

C = ±100ppm Maximum over -20°C to +70°C
 D = ±50ppm Maximum over -20°C to +70°C
 E = ±25ppm Maximum over -20°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

PACKAGING OPTIONS

Blank=Bulk, TR=Tape & Reel

FREQUENCY

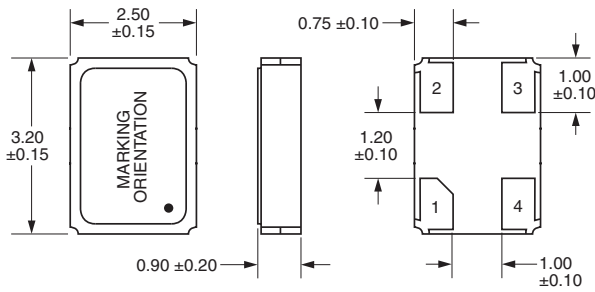
OUTPUT CONTROL FUNCTION

H=Tri-State

DUTY CYCLE

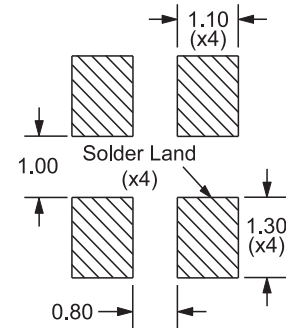
2=50 ±5(%)

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



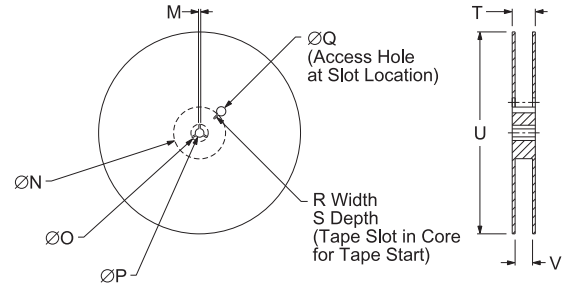
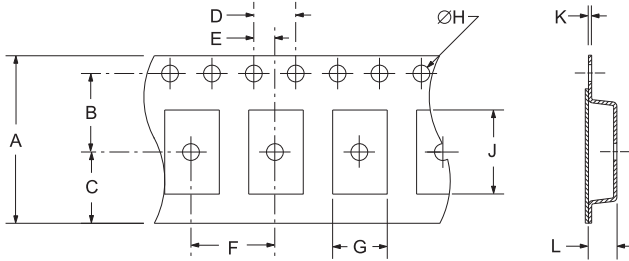
Pin 1: Tri-State
 Pin 2: Case Ground
 Pin 3: Output
 Pin 4: Supply Voltage

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: E XX.X
 Frequency in MHz (3 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	EB17E2	CERAMIC	1.2V	OS6U	11/08