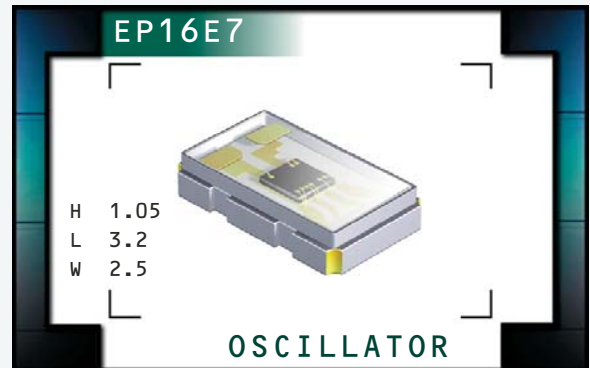


EP16E7 Series



ECLIPTEK[®]
CORPORATION

- Programmable Crystal Oscillators
- LVCMOS Output
- +1.8V Supply Voltage
- Tri-State and Power Down Options
- 4 Pad Ceramic SMD Package
- RoHS Compliant (Pb-Free)



ELECTRICAL SPECIFICATIONS

Nominal Frequency	3.300MHz, 3.6864MHz, 5.000MHz, 6.000MHz, 7.000MHz, 8.000MHz, 9.000MHz, 10.000MHz, 12.000MHz, 16.000MHz, 19.200MHz, 24.000MHz, 25.000MHz, 26.000MHz, 32.000MHz, 33.000MHz, 33.333MHz, 37.500MHz, 52.000MHz, 64.000MHz, 66.000MHz, 67.000MHz, 70.000MHz, and 75.000MHz	
Operating Temperature Range	-20°C to +70°C or -40°C to +85°C	
Storage Temperature Range	-55°C to +125°C	
Supply Voltage (V_{DD})	1.8V _{DC} ±5%	
Input Current	3.300MHz to 25.000MHz	8mA Maximum
	25.001MHz to 50.000MHz	9mA Maximum
	50.001MHz to 75.000MHz	12mA 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, 260°C Reflow, Shock, and Vibration	
	±25ppm, 50ppm or ±100ppm Maximum	
Output Voltage Logic High (V_{OH})	I _{OH} = -8mA	90% of V _{DD} Minimum
Output Voltage Logic Low (V_{OL})	I _{OL} = +8mA	10% of V _{DD} Maximum
Rise Time / Fall Time	3.300MHz to 50.000MHz, 20% to 80% of waveform	6nSeconds Maximum
	50.001MHz to 75.000MHz, 20% to 80% of waveform	4nSeconds Maximum
Duty Cycle	at 50% of waveform	
	50 ±5(%)	
Load Drive Capability	15pF Maximum	
Output Logic Type	CMOS	
Pad 1 Connection	Tri-State or Power Down	
Pad 1 Input Voltage	V _{IH} of 90% of V _{DD} Minimum	Enables Output
	No Connection	Enables Output
	V _{IL} of 10% of V _{DD} Maximum	Disables Output
Standby Current	Disabled Output (Logic Low)	30µA Maximum
Disable Current	Disabled Output (High Impedance)	4mA Maximum
Absolute Clock Jitter	3.300MHz to 24.999999MHz	350pSec Maximum
	25.000MHz to 75.000MHz	200pSec Maximum
Aging at 25°	±5ppm/Year Maximum	
Start Up Time	10mSec Maximum	

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EP16E7

PACKAGE
CERAMIC

VOLTAGE
1.8V

CLASS
055N

REV. DATE
09/11

PART NUMBERING GUIDE

EP16E7 H 2 H - 32.000M TR

FREQUENCY TOLERANCE & STABILITY/ OPERATING TEMPERATURE RANGE

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

DUTY CYCLE

2 = 50% ±5%

AVAILABLE OPTIONS

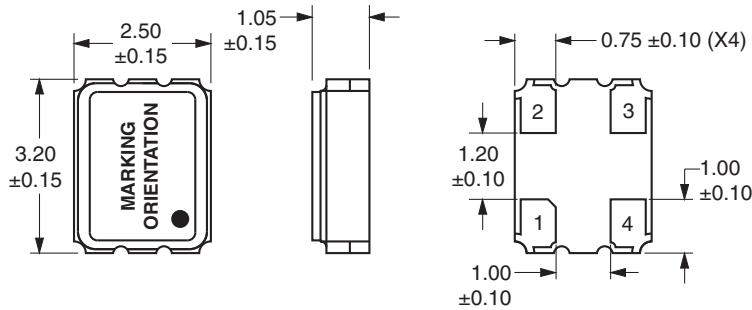
Blank = Bulk
 TR = Tape & Reel

FREQUENCY

LOGIC CONTROL/ADDITIONAL OUTPUT

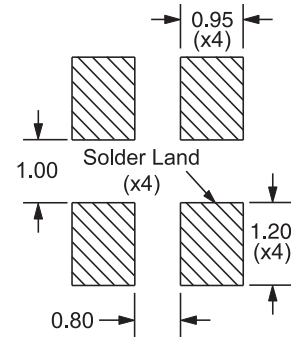
H = Tri-State
 J = Power Down

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



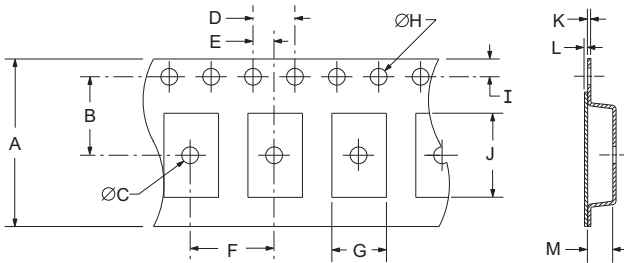
Pin 1: Tri-State or Power Down
 Pin 2: Case Ground
 Pin 3: Output
 Pin 4: Supply Voltage

SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS

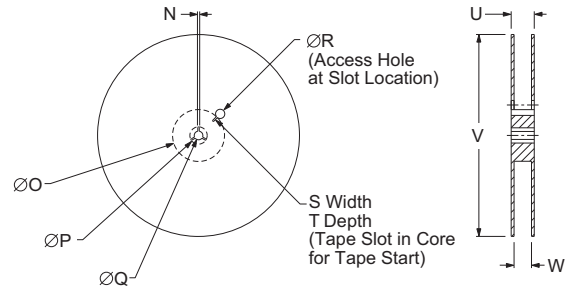


Tolerances = ±0.1

TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E	F
	8.0 ±0.3	3.50 ±0.05	1.0 MIN	4.0 ±0.1	2.00 ±0.05	4.0 ±0.1
G	H	I	J	K	L	M
A0	1.5 +0.1/-0.0	1.75 ±0.10	B0	0.6 MAX	0.10 MAX	K0



REEL	N	O	P	Q	R
	1.5 MIN	50 MIN	20.2 MIN	13.0 ±0.2	40 MIN
S	T	U	V	W	QTY/REEL
2.5 MIN	10 MIN	14.4 MAX	180 MAX	8.4 ±1.5/-0.0	1,000

Note: Compliant to EIA-481

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
ESD Susceptibility	MIL-STD-883, Method 3015, Class 1, HBM: 1500Vdc
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
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
Thermal Shock	MIL-STD-883, Method 1011, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A

MARKING SPECIFICATIONS

Line 1: EPO

Line 2: XXXXX

Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EP16E7	CERAMIC	1.8V	OS5N	09/11