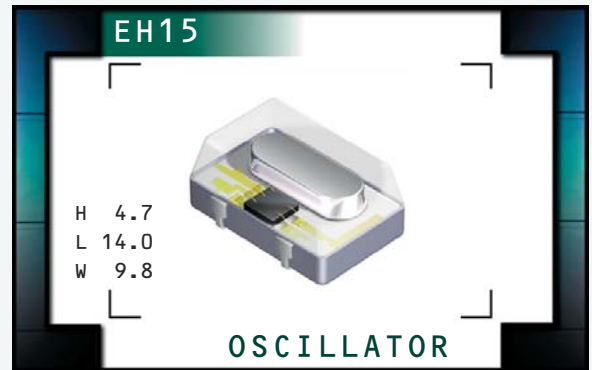


EH15 Series

- Crystal Clock Oscillators
- LVCMOS Output
- +3.3V Supply Voltage
- Tri-State Output Function
- 4 Pad Plastic SMD Package
- RoHS Compliant



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range		1.000MHz to 155.520MHz
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})		3.3V _{DC} ±0.3V _{DC}
Input Current		35mA Maximum (Unloaded)
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, ±50ppm, ±25ppm, or ±20ppm Maximum
Output Voltage Logic High (V_{OH})		2.7V _{DC} Minimum I _{OH} = -8mA
Output Voltage Logic Low (V_{OL})		0.5V _{DC} Maximum I _{OL} = +8mA
Rise Time / Fall Time	≤70.000MHz 20% to 80% of Waveform >70.000MHz 20% to 80% of Waveform	6 nSeconds Maximum 4 nSeconds Maximum
Load Drive Capability	≤70.000MHz >70.000MHz	30pF Maximum 15pF Maximum
Duty Cycle (at V_{DD}=3.3V_{DC})	at 50% of Waveform	50 ±10(%) (Standard) or 50 ±5(%) (Optional)
Tri-State Input Voltage	V _{IH} : No Connection or ≥2.2V _{DC} V _{IL} : ≤0.8V _{DC}	Enables Output Disables Output: High Impedance
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10mSeconds Maximum
Period Jitter: Absolute		±250pSec Maximum, ±100pSec Typical
Period Jitter: One Sigma		±50pSec Maximum, ±40pSec Typical

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EH15

PACKAGE
PLASTIC

VOLTAGE
3.3V

CLASS
0549

REV. DATE
06/10

PART NUMBERING GUIDE

EH15 00 SJ ET TS - 24.000M TR

FREQUENCY TOLERANCE / STABILITY

00=100 ppm Maximum
 45=±50ppm Maximum, 25=±25ppm Maximum
 20=±20ppm Maximum

OPERATING TEMP. RANGE

Blank = 0°C to +70°C
 ET = -40°C to +85°C

DUTY CYCLE

Blank = 50 ± 10 (%)
 T = 50 ± 5 (%)

PACKAGING OPTIONS

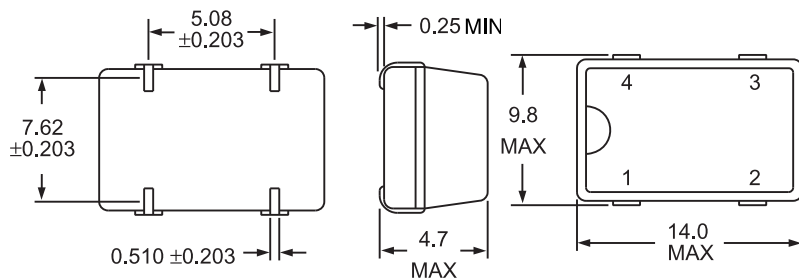
Blank = Bulk
 TR = Tape & Reel

FREQUENCY

OUTPUT CONTROL FUNCTION

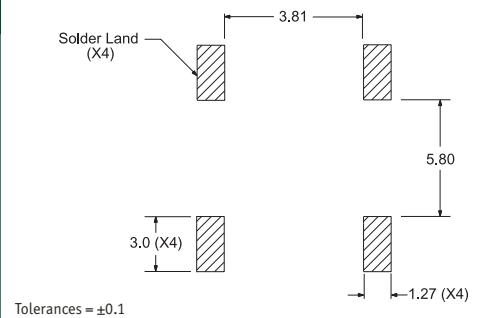
TS = Tri-State

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



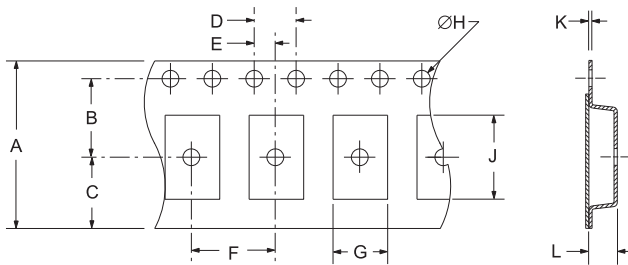
Pin 1: Tri-State
 Pin 2: Case Ground
 Pin 3: Output
 Pin 4: Supply Voltage

SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS

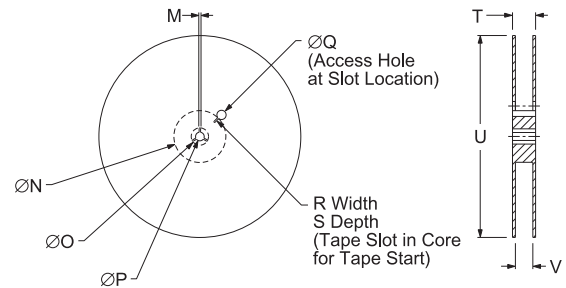


Tolerances = ±0.1

TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E	
	24 ± 3	11.5 ± 1	10.75 ± 1	4 ± 2	2 ± 1	
	F	G	H	J	K	L
	12 ± 2	B0*	1.5 +1-0	A0*	.3 ± 1	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	30.4 MAX	360 MAX	24.4+2-0	1000

*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 (Internal Crystal Only)
Flammability	UL94-V0
Gross Leak Test	MIL-STD-883, Method 1014, Condition C (Internal Crystal Only)
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Moisture Resistance	MIL-STD-883, Method 1004
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: ECLIPTEK
 Line 2: XX.XXX M — Frequency in MHz (5 Digits Maximum + Decimal)
 Line 3: XXXXXX — Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EH15	PLASTIC	3.3V	OS49	06/10