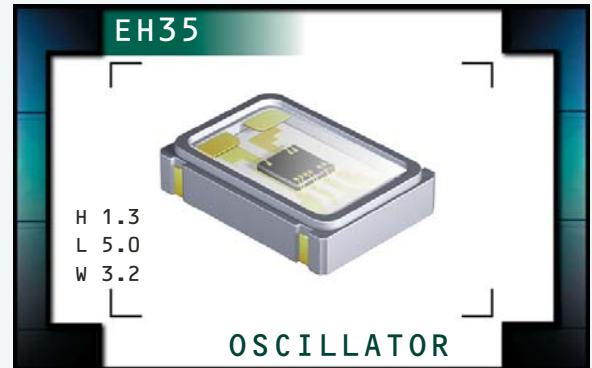


EH35 Series

- Crystal Clock Oscillators
- CMOS Output
- +5.0V Supply Voltage
- Tri-State Output Function
- 4 Pad Ceramic SMD Package
- RoHS Compliant (Pb-Free)



ECLIPTEK[®]
CORPORATION



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})	5.0V _{DC} ±10%		
Input Current	50mA 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})	w/TTL Load	2.4V _{DC} Minimum	I _{OH} = -16mA
	w/CMOS Load	V _{DD} -0.4V _{DC} Minimum	I _{OH} = -16mA
Output Voltage Logic Low (V_{OL})	w/TTL Load	0.4V _{DC} Maximum	I _{OL} = +16mA
	w/CMOS Load	0.5V _{DC} Maximum	I _{OL} = +16mA
Duty Cycle (V_{DD}=5.0V_{DC})	at 1.4V _{DC} w/TTL Load; at 50% of waveform w/CMOS Load (≤70.000MHz)	50 ±10(%)	
	at 50% of waveform w/ TTL Load or w/CMOS Load (>70.000MHz)	50 ±10(%)	
	at 50% of waveform w/TTL Load or w/CMOS Load	50 ±5(%)	
Rise Time / Fall Time	0.8V _{DC} to 2.0V _{DC} w/TTL Load or 20% to 80% of Waveform w/CMOS Load (≤70.000MHz)	6 nSeconds Maximum	
	0.8V _{DC} to 2.0V _{DC} w/TTL Load or 20% to 80% of Waveform w/CMOS Load (>70.000MHz)	4 nSeconds Maximum	
Tri-State Input Voltage	V _{IH} : No Connection	Enables Output	
	V _{IH} : ≥2.2V _{DC}	Enables Output	
	V _{IL} : ≤0.8V _{DC}	Disables Output: High Impedance	
Aging (at 25°C)	±5ppm / year Maximum		
Start Up Time	10 mSeconds Maximum		
Load Drive Capability	≤70.000MHz	10TTL Load or 50pF CMOS Load Maximum	
	>70.000MHz	5TTL Load or 15pF CMOS Load Maximum	
Output Logic Type	CMOS		
Period Jitter: Absolute	±250pSec Maximum, ±100pSec Typical		
Period Jitter: One Sigma	±50pSec Maximum, ±30pSec Typical		

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EH35

PACKAGE
CERAMIC

VOLTAGE
5.0V

CLASS
OS89

REV. DATE
10/11

PART NUMBERING GUIDE

EH35 00 ET TS - 24.000M TR

FREQUENCY TOLERANCE / STABILITY

00 = ±100ppm 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(%)

AVAILABLE OPTIONS

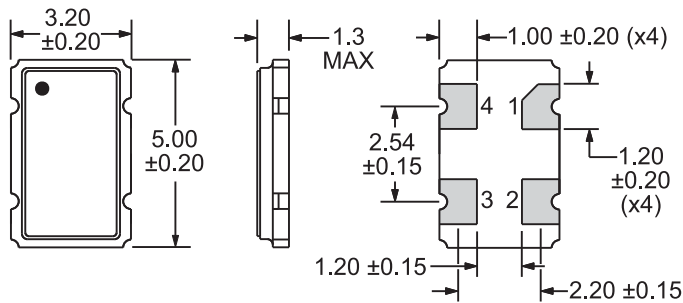
Blank=Bulk
 TR=Tape & Reel

FREQUENCY

OUTPUT CONTROL FUNCTION

TS=Tri-State

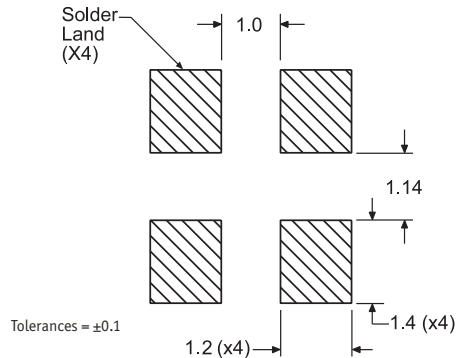
MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



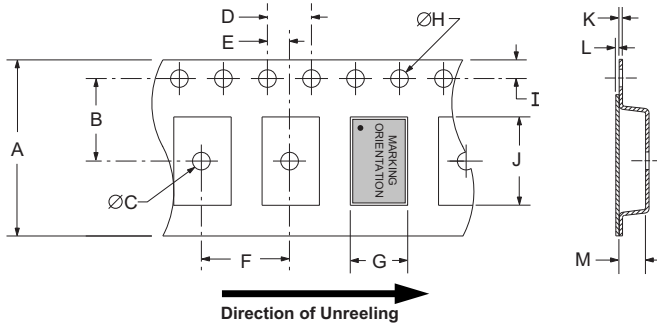
Pin 1: Tri-State
 Pin 2: Case Ground

Pin 3: Output
 Pin 4: Supply Voltage

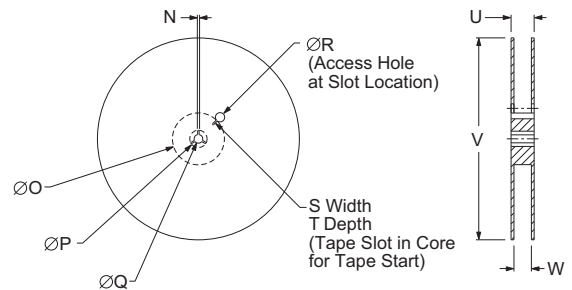
SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E	F
	16.0 ±0.3	7.5 ±0.1	1.50 MIN	4.0 ±0.1	2.0 ±0.1	8.0 ±0.1
G	H	I	J	K	L	M
A0	1.5 +0.1/-0.0	1.75 ±0.10	B0	0.60 MAX	0.10 MAX	K0



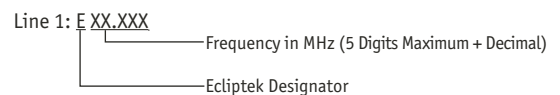
REEL	N	O	P	Q	R	
	1.5 MIN	50 MIN	20.2 MIN	13.0 ±0.2	40 MIN	
S	T	U	V	W	QTY/REEL	
	2.5 MIN	10 MIN	22.4 MAX	180 MAX	16.4 +2.0/-0.0	1,000

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215

MARKING SPECIFICATIONS

Note: Compliant to EIA-481



MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EH35	CERAMIC	5.0V	OS89	10/11