

EH25 Series

- Pb-free ceramic SMD package
- 5.0V supply voltage
- HCMOS/TTL output
- Stability to 20ppm
- Available on tape and reel



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, ±100ppm, ±50ppm, ±25ppm, or Frequency Stability over the Operating Temperature Range, ±20ppm Maximum Supply Voltage Change, Output Load Change, First Year Aging at 25°C, Shock, and Vibration
Output Voltage Logic High (V_{OH})	w/TTL Load	2.4V _{DC} Minimum $I_{OH} = -16mA$
	w/HCMOS 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/HCMOS 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/HCMOS Load (≤70.000MHz)	50 ±10(%) (Standard)
	at 50% of waveform w/ TTL Load or w/HCMOS Load (>70.000MHz)	50 ±10(%) (Standard)
	at 50% of waveform w/TTL Load or w/HCMOS Load	50 ±5(%) (Optional)
Rise Time / Fall Time	0.8V _{DC} to 2.0V _{DC} w/TTL Load or 20% to 80% of Waveform w/HCMOS Load (≤70.000MHz)	6 nSeconds Maximum
	0.8V _{DC} to 2.0V _{DC} w/TTL Load or 20% to 80% of Waveform w/HCMOS Load (>70.000MHz)	4 nSeconds Maximum
Tri-State Input Voltage	V_{IH} : No Connection	Enables Output
	$V_{IH} \geq 2.2V_{DC}$	Enables Output
	$V_{IL} \leq 0.8V_{DC}$	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 HCMOS Load Maximum
	>70.000MHz	5TTL Load or 15pF HCMOS Load Maximum
Period Jitter: Absolute		±250pSec Maximum, ±100pSec Typical
Period Jitter: One Sigma		±50pSec Maximum, ±30pSec Typical

PART NUMBERING GUIDE

EH25 00 ET TS - 24.000M TR

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum (Standard), 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 (%) (Standard), T = 50 ± 5 (%)

AVAILABLE OPTIONS

Blank = Bulk (Standard)

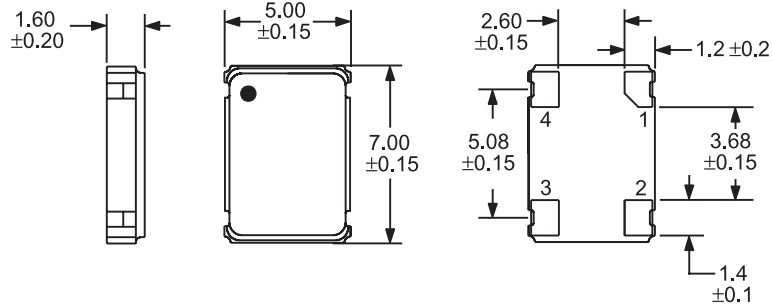
TR = Tape and Reel

FREQUENCY

OUTPUT CONTROL FUNCTION

TS = Tri-State

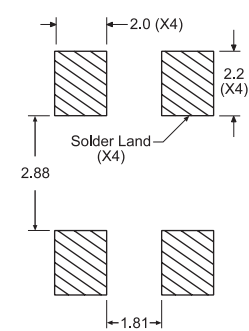
MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



Pin 1: Tri-State
Pin 2: Case Ground

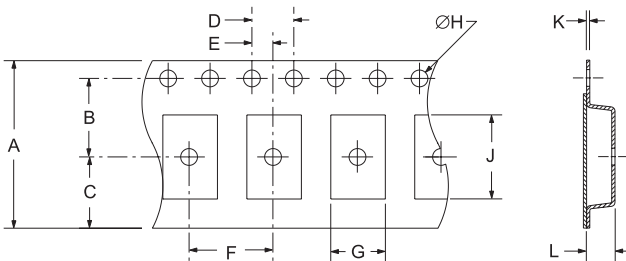
Pin 3: Output
Pin 4: Supply Voltage

SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS

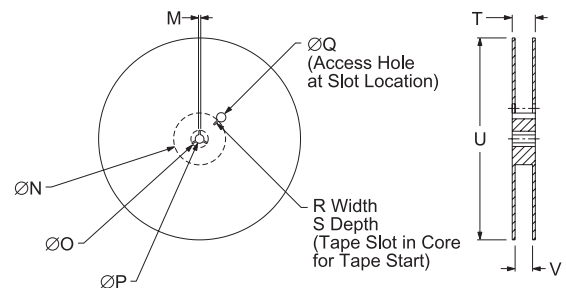


Tolerances = ±0.1

TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



REEL	A	B	C	D	E
	16+3-1	7.5±1	6.75±1	4±1	2±1
F	G	H	J	K	L
8±1	B0*	1.5+1-0	A0*	.3±.05	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	22.4 MAX	360 MAX	16.4+2-0	1,000

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic

Fine Leak Test
Gross Leak Test
Mechanical Shock
Vibration
Lead Integrity
Solderability
Temperature Cycling
Resistance to Soldering Heat
Resistance to Solvents

Specification

MIL-STD-883, Method 1014, Condition A
MIL-STD-883, Method 1014, Condition C
MIL-STD-202, Method 213, Condition C
MIL-STD-883, Method 2007, Condition A
MIL-STD-883, Method 2004
MIL-STD-883, Method 2002
MIL-STD-883, Method 1010
MIL-STD-883, Method 210
MIL-STD-883, Method 215

MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: XX.XXX M

Frequency in MHz (5 Digits Maximum + Decimal)

Line 3: P XX Y ZZ

Week of Year
Last Digit of Year
Ecliptek Manufacturing Identifier
Configuration Designator