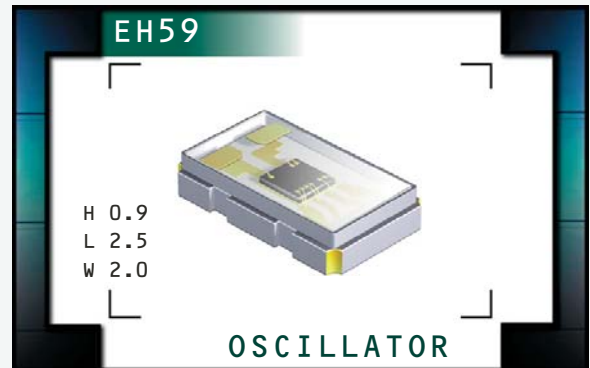


EH59 Series



ECLIPTEK[®]
CORPORATION

- Crystal Clock Oscillators
- LVCMOS Output
- +1.8V Supply Voltage
- Tri-State Output Function
- 4 Pad Ceramic SMD Package
- Low Stand-by Current
- RoHS Compliant (Pb-Free)



ELECTRICAL SPECIFICATIONS

Frequency Range	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	75.000MHz				

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}) 1.8V_{DC} ±5%

Input Current (No Load) 3.300MHz to 25.000MHz 3.5mA Maximum
25.001MHz to 75.000MHz 4mA 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 Aging at 25°C, 260°C Reflow, Shock, and Vibration ±25ppm Maximum
±20ppm Maximum

Output Voltage Logic High (V_{OH}) 90% of V_{DD} Minimum I_{OH} = -8mA

Output Voltage Logic Low (V_{OL}) 10% of V_{DD} Maximum I_{OL} = +8mA

Rise Time / Fall Time 3.300MHz to 50.000MHz 20% to 80% of Waveform 6 nSeconds Maximum
50.001MHz to 75.000MHz 20% to 80% of Waveform 4 nSeconds Maximum

Load Drive Capability 15pF Maximum

Duty Cycle at 50% of Waveform 50 ±10% (Standard) or 50 ±5% (Optional)

Tri-State Input Voltage V_{IH} : ≥90% of V_{DD} or No Connection Enables Output
V_{IL} : ≤10% of V_{DD} Disables Output: High Impedance

Standby Current Pin 1 = Ground 10µA Maximum

Aging (at 25°C) ±5ppm / year Maximum

Start Up Time 10mSeconds Maximum

Period Jitter: Absolute ±125pSec Maximum

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EH59	PACKAGE CERAMIC	VOLTAGE 1.8V	CLASS 056Z	REV. DATE 09/09
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PART NUMBERING GUIDE

EH59 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

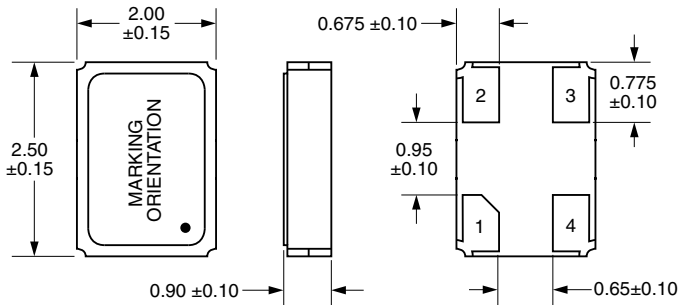
Blank = Bulk
TR = Tape & Reel

FREQUENCY

OUTPUT CONTROL FUNCTION

TS = Tri-State

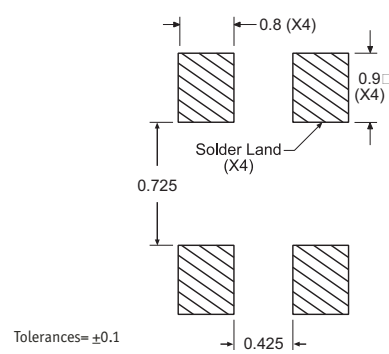
MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



Pin 1: Tri-State
Pin 2: Case Ground

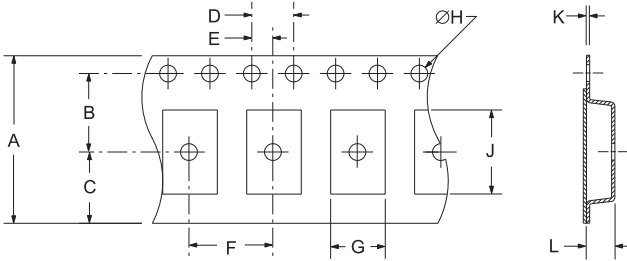
Pin 3: Output
Pin 4: Supply Voltage

SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS

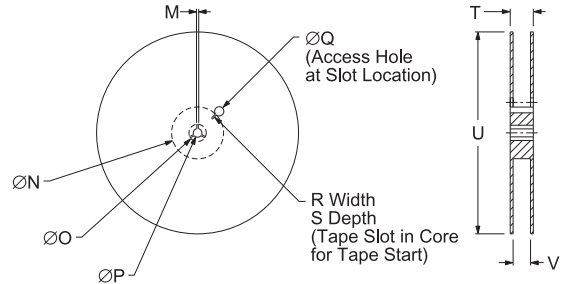


Tolerances = ±0.1

TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



REEL	A	B	C	D	E
	8.0 ± 2	3.5 ± 1	2.75 ± 1	4 ± 1	2 ± 1
F	G	H	J	K	L
4 ± 1	B0*	1.55 ± 0.05	A0*	.25 ± 0.05	K0*



REEL	M	N	O	P	Q
	1.5 MIN	50 MIN	20.2 MIN	13 ± 2 - 2	40 MIN
R	S	T	U	V	QTY/REEL
2.5 MIN	10 MIN	14.4 MAX	360 MAX	8.4 ± 1.5 - 0	1,000

*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
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: EPO

Line 2: XXXXX

Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EH59	CERAMIC	1.8V	OS6Z	09/09