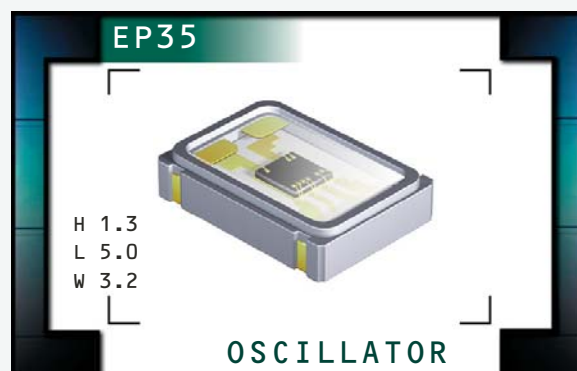


EP35 Series

- Programmable Crystal Oscillators
- HCMOS/TTL Output
- +5.0V Supply Voltage
- Tri-State and Power Down Options
- 4 Pad Ceramic SMD Package
- RoHS Compliant (Pb-Free)



ECLIPTEK
CORPORATION



ELECTRICAL SPECIFICATIONS

Frequency Range		1.000MHz to 125.000MHz	
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})		5.0V _{DC} ±10%	
Input Current		45mA Maximum (Unloaded)	
Disable Current (TS Option)		30mA Maximum (Pin 1=Ground)	
Standby Current (PD Option)		50µA Maximum (Pin 1=Ground)	
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	
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 or w/CMOS Load	0.4V _{DC} Maximum	I_{OL} =+16mA
Rise Time / Fall Time	w/TTL Load	4 nSeconds Max (0.8V _{DC} to 2.0V _{DC})	
	w/CMOS Load	4 nSec Max (20% to 80% of waveform)	
Duty Cycle	at 1.4V _{DC} w/TTL Load; at 50% of waveform w/CMOS Load	50 ±10(%)	
	at 1.4V _{DC} w/TTL Load (≤27.000MHz only), or	50 ±5(%)	
	at 50% of waveform w/CMOS Load (≤50.000MHz Only)		
Load Drive Capability /	≤50.000MHz	50pF CMOS Load Maximum	
Output Type-HCMOS	>50.000MHz	15pF CMOS Load Maximum	
Load Drive Capability /	≤40.000MHz	10TTL Load Maximum	
Output Type-TTL	>40.000MHz	5TTL Load Maximum	
Output Control Function	TS	Tri-State	
	PD	Power Down	
Output Control Function Input Voltage	V_{IH} : No Connection or ≥2.0V _{DC}	Enables Output	
	V_{IL} : (TS Option) ≤0.8V _{DC}	Disable Output: High Impedance	
	V_{IL} : (PD Option) ≤0.8V _{DC}	Disable Output: Logic Low	
Aging (at 25°C)		±5ppm / year Maximum	
Start Up Time		10 mSeconds Maximum	
Period Jitter: Absolute	≤33.000MHz	±250pSec Maximum, ±100pSec Typical	
	>33.000MHz	±100pSec Maximum, ±50pSec Typical	
Period Jitter: One Sigma	≤33.000MHz	±50pSec Maximum	
	>33.000MHz	±30pSec Maximum	

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EP35

PACKAGE
CERAMIC

VOLTAGE
5.0V

CLASS
OS89

REV. DATE
10/11

PART NUMBERING GUIDE

EP35 00 ET TS L - 24.000M TR

FREQUENCY TOLERANCE / STABILITY

00 = ± 100 ppm Maximum
45 = ± 50 ppm Maximum

OPERATING TEMPERATURE RANGE

Blank = -20°C to $+70^{\circ}\text{C}$
ET = -40°C to $+85^{\circ}\text{C}$

DUTY CYCLE

Blank = 50 ± 10 (%)
T = 50 ± 5 (%)

AVAILABLE OPTIONS

Blank = Bulk
TR = Tape & Reel

FREQUENCY

OUTPUT TYPE

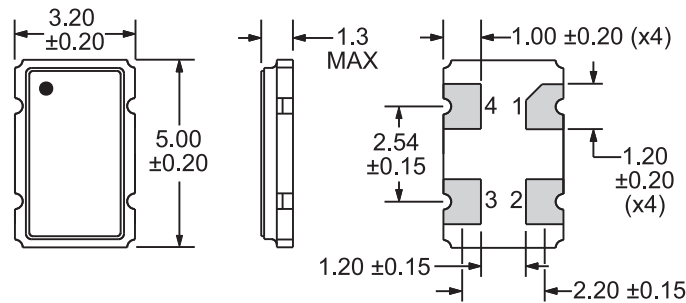
L = TTL
C = CMOS

OUTPUT CONTROL FUNCTION

TS = Tri-State
PD = Power Down

MECHANICAL DIMENSIONS

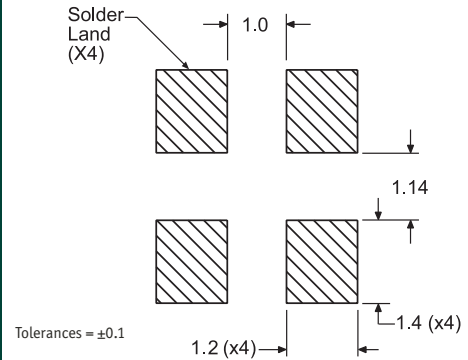
ALL DIMENSIONS IN MILLIMETERS



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

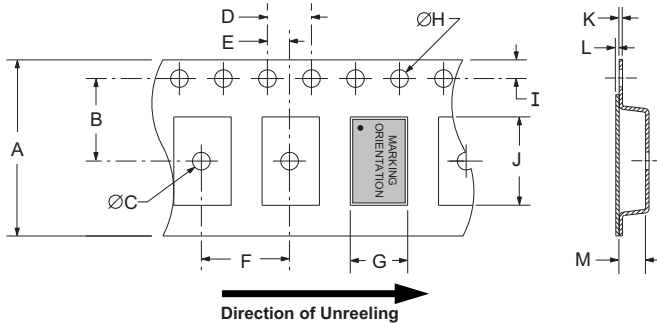
SUGGESTED SOLDER PAD LAYOUT

ALL DIMENSIONS IN MILLIMETERS

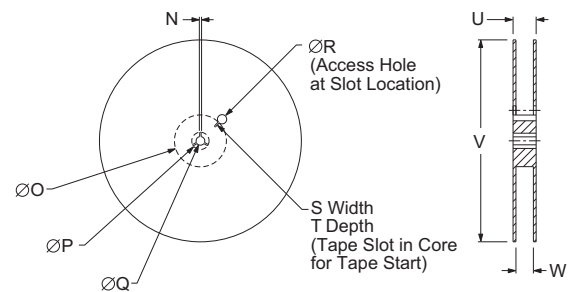


TAPE AND REEL DIMENSIONS

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

Fine Leak Test
Gross Leak Test
Mechanical Shock
Vibration
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 2002
MIL-STD-883, Method 1010
MIL-STD-202, Method 210
MIL-STD-202, Method 215

MARKING SPECIFICATIONS

Note: Compliant to EIA-481

Line 1: E XX.XXX

Frequency in MHz (5 Digits Maximum + Decimal)

Ecliptek Designator

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EP35	CERAMIC	5.0V	OS89	10/11

Mouser Electronics

Authorized Distributor

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[EP3500ETTSC](#) [EP3500ETTSL](#) [EP3500ETTPDC](#) [EP3500ETTPDL](#) [EP3500ETTTSC](#) [EP3500ETTTSL](#) [EP3500TSL](#)
[EP3500TSC](#) [EP3500PDL](#) [EP3500PDC](#) [EP3500TSL-48.00MHZ](#) [EP3500TSL-20.00MHz](#) [EP3500TSC-64.000MHZ](#)