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)

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	±100ppm or ±50ppm Maximum
Output Voltage Logic High (V_{OH})	w/TTL Load w/CMOS Load	2.4V_{DC} Minimum I_{OH}=-16mA 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 w/CMOS Load	4 nSeconds Max (0.8V_{DC} to 2.0V_{DC}) 4 nSec Max (20% to 80% of waveform)
Duty Cycle	at 1.4V_{DC} w/TTL Load; at 50% of waveform w/CMOS Load at 1.4V_{DC} w/TTL Load (≤27.000MHz only), or at 50% of waveform w/CMOS Load (≤50.000MHz Only)	50 ±10(%) 50 ±5(%)
Load Drive Capability / Output Type-HCMOS	≤50.000MHz >50.000MHz	50pF CMOS Load Maximum 15pF CMOS Load Maximum
Load Drive Capability / Output Type-TTL	≤40.000MHz >40.000MHz	10TTL Load Maximum 5TTL Load Maximum
Output Control Function	TS PD	Tri-State Power Down
Output Control Function Input Voltage	V_{IH}: No Connection or ≥2.0V_{DC} V_{IL}: (TS Option) ≤0.8V_{DC} V_{IL}: (PD Option) ≤0.8V_{DC}	Enables Output Disable Output: High Impedance Disable Output: Logic Low
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10 mSeconds Maximum
Period Jitter: Absolute	≤33.000MHz >33.000MHz	±250pSec Maximum, ±100pSec Typical ±100pSec Maximum, ±50pSec Typical
Period Jitter: One Sigma	≤33.000MHz >33.000MHz	±50pSec Maximum ±30pSec Maximum

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

PART NUMBERING GUIDE

EP35 00 ET T TS L - 24.000M TR

FREQUENCY TOLERANCE / STABILITY
00 = ±100ppm Maximum
45 = ±50ppm Maximum

OPERATING TEMPERATURE RANGE
Blank = -20°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

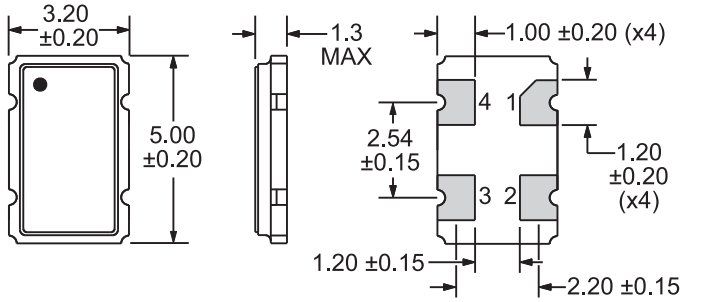
FREQUENCY

OUTPUT TYPE
L = TTL
C = CMOS

OUTPUT CONTROL FUNCTION
TS = Tri-State
PD = Power Down

MECHANICAL DIMENSIONS

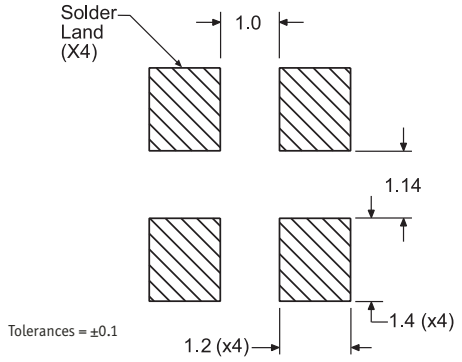
ALL DIMENSIONS IN MILLIMETERS



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

SUGGESTED SOLDER PAD LAYOUT

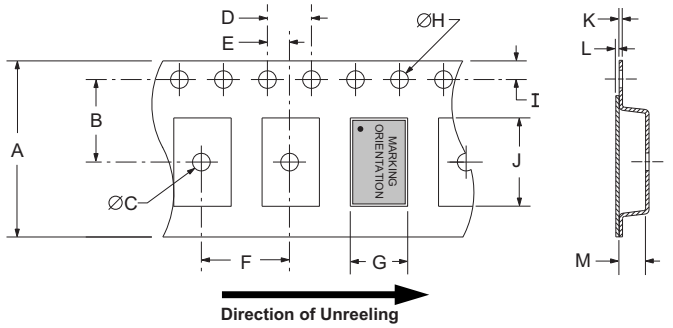
ALL DIMENSIONS IN MILLIMETERS

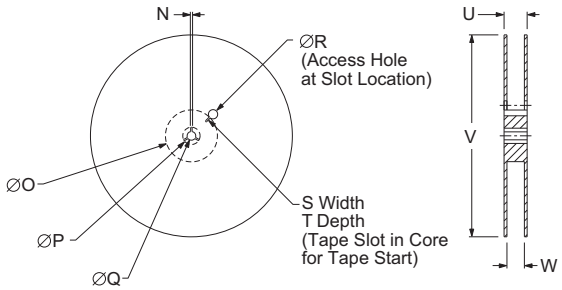


Tolerances = ±0.1

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

Note: Compliant to EIA-481

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

Line 1: E XX.XXX
- Frequency in MHz (5 Digits Maximum + Decimal)
- Ecliptek Designator

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ECLIPTEK CORP.	OSCILLATOR	EP35	CERAMIC	5.0V	OS89	10/11

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Ecliptek:

EP3500ETPDL EP3500ETPDC EP3500TTSL EP3500TTSC EP3500TSC4.0MHZ EP3500TPDL EP3500TPDC EP3500ETTSC EP3500ETTSL EP3500ETTPDC EP3500ETTPDL EP3500ETTTSC EP3500ETTTSL EP3500TSL EP3500TSC EP3500PDL EP3500PDC EP3500TSL-48.00MHZ EP3500TSL-20.00MHz EP3500TSC-64.000MHZ