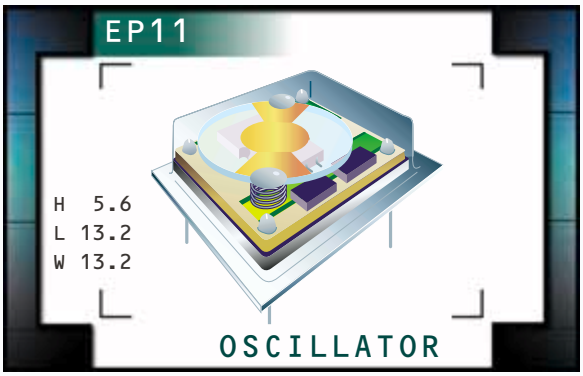
EP11 Series

- EPO TM Programmable Oscillators
- 5.0V supply voltage
- HCMOS/TTL output
- 8 pin DIP package
- Stability to 50ppm
- Custom lead length, gull wing options available



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 Operating Temp Range, Supply Voltage, and Load	±100ppm or ±50ppm Maximum
Output Voltage Logic High (V_{OH})	w/TTL Load w/HCMOS 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/HCMOS Load	0.4V_{DC} Maximum I_{OL}=+16mA
Rise Time / Fall Time	0.8V_{DC} to 2.0 V_{DC} w/TTL Load or 20% to 80% of Waveform w/HCMOS Load	4 nSeconds Maximum
Duty Cycle	at 1.4V_{DC} w/TTL Load; at 50% of waveform w/HCMOS Load at 1.4V_{DC} w/TTL Load (≤27.000MHz only), or at 50% of waveform w/HCMOS Load (≤50.000MHz only)	50 ±10(%) (Standard) 50 ±5(%) (Optional)
Load Drive Capability / Output Type-HCMOS	≤50.000MHz >50.000MHz	50pF HCMOS Load Maximum 15pF HCMOS Load Maximum
Load Drive Capability / Output Type-TTL	≤40.000MHz >40.000MHz	10TTL Load Maximum 5TTL Load Maximum
Pin 1 Connection	TS PD	Tri-State Power Down
Pin 1 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 Disables Output: High Impedence Disables 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	±50pSeconds Maximum ±30pSeconds Maximum

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EP11	8 pin DIP	5.0V	OS45	06/00

PART NUMBERING GUIDE

EP11 00 HS ET T TS L - 24.000M - CL125 TR

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

PACKAGE
HS=Half Size 8 Pin DIP

OPERATING TEMP. RANGE
Blank=-20°C to 70°C (Standard), ET=-40°C to 85°C

DUTY CYCLE
Blank=50 ±10(%) (Standard), T=50 ±5(%)

PIN 1 CONNECTION
TS=Tri-State Enable High, PD=Power Down

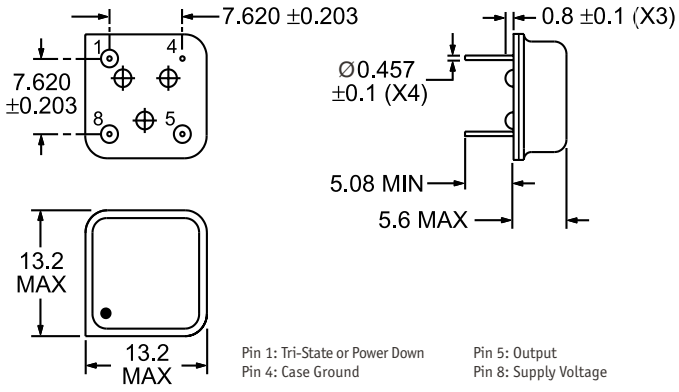
PACKAGING OPTIONS
Blank=Bulk (Standard)
TR=Tape & Reel (only offered with Half Size G and Half Size G2 Options)

AVAILABLE OPTIONS
Blank=None (Standard)
CLXXX=Custom Lead Length (See Page 123)
G=Half Size Gull Wing (See Page 122)
G2=Half Size Gull Wing (See Page 122)

FREQUENCY

OUTPUT TYPE
L=TTL, C=HCMOS

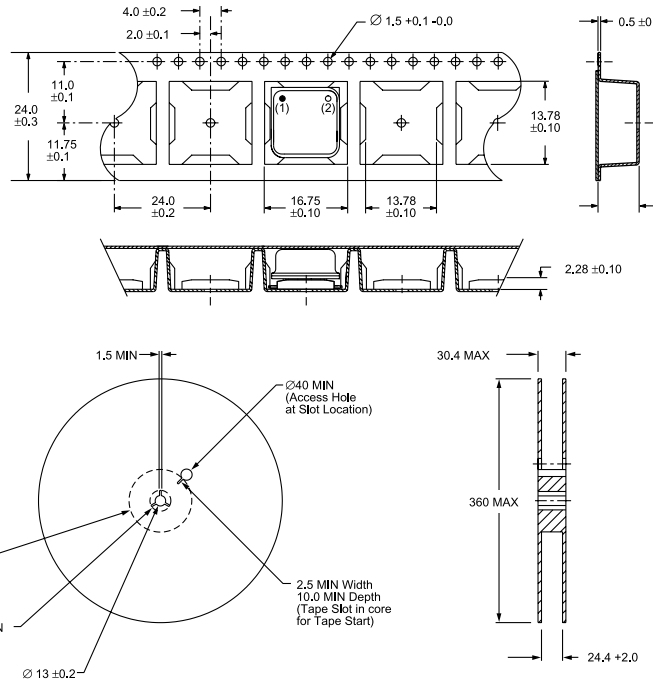
MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



Pin 1: Tri-State or Power Down
Pin 4: Case Ground
Pin 5: Output
Pin 8: Supply Voltage

TAPE AND REEL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS

Pin 1 Locator for Gull Wing
(1) For "G" Option



700 Pieces Per Reel
Compliant to EIA-481A

MARKING SPECIFICATIONS

Line 1: ECLIPTEK
Line 2: EP11 TS
- Pin 1 Connection
  - PD = Power Down
  - TS = Tri-State Enable High
- Series Designator

Line 3: XX.XXX M
- Frequency in MHz (5 Digits Maximum + Decimal)

Line 4: XX Y ZZ
- Week of Year
- Last Digit of Year
- Ecliptek Manufacturing Identifier

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
Seal Integrity	Bubble test in Perfluorocarbon at +125°C ±5°C for 60 seconds minimum.
Solderability	Sn63 Solder dip at +230°C ±5°C for 5 seconds/95% coverage.
Marking Permanency	10 Strokes with brush after 1 minute soak in solvent, 3 times.
Shock	Random drop on hard wooden plate 3 times from a height of 20cm.
Vibration	Frequency with an amplitude of 1.5mm sweeping between 10Hz to 55Hz within 1 minute (approximately) for 2 hours minimum on each axis (X, Y and Z) for a total of 6 hours.

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EP11	8 pin DIP	5.0V	OS45	06/00