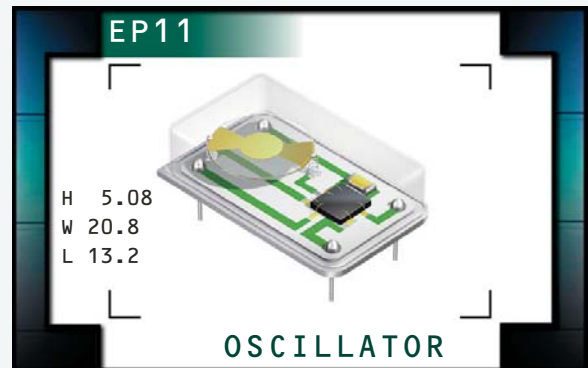


EP11 Series



- RoHS Compliant (Pb-free)
- EPO™ Programmable Oscillators
- 5.0V supply voltage
- HCMOS/TTL output
- 14 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 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/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 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
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 Disables Output: High Impedence Disables Output: Logic Low
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10 mSeconds Maximum
RMS Jitter	<12.000MHz ≥12.000MHz	50pSec Maximum, 13pSec Typical 13pSec Maximum, 8pSec Typical
Peak to Peak Jitter	<12.000MHz ≥12.000MHz	500pSec Maximum, 90pSec Typical 100pSec Maximum, 50pSec Typical

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EP11

PACKAGE
14 pin DIP

VOLTAGE
5.0V

CLASS
OS44

REV. DATE
12/05

PART NUMBERING GUIDE

EP11 00 ET T TS L - 24.000M - CL125

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum (Standard)
45=±50ppm Maximum

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(%)

OUTPUT CONTROL FUNCTION

TS=Tri-State Enable High, PD=Power Down

AVAILABLE OPTIONS

Blank=None (Standard)
CLXXX=Custom Lead Length (See Page 133)
G=Full Size Gull Wing (See Page 132)

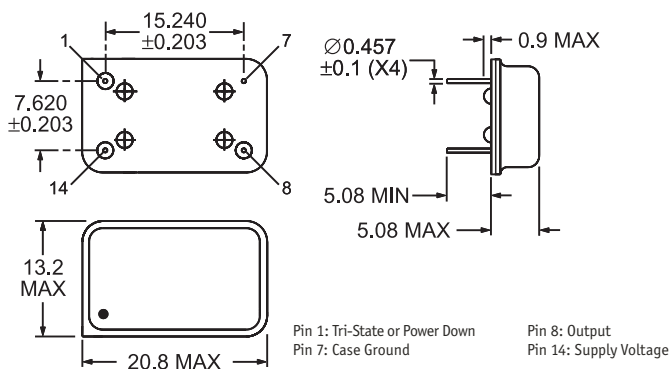
FREQUENCY

OUTPUT TYPE

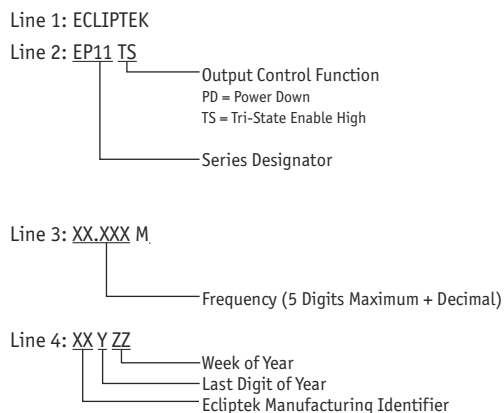
L=TTL, C=HCMOS

NOTES

MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



MARKING SPECIFICATIONS



Note: Pin 1 shall be designated with a dot

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
Lead Integrity	MIL-STD-883, Method 2004

Characteristic	Specification
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-883, Method 210
Resistance to Solvents	MIL-STD-883, Method 215

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EP11	14 pin DIP	5.0V	OS44	12/05