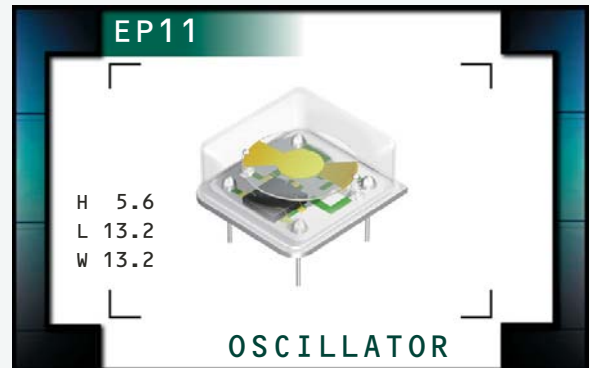


EP11 Series



- RoHS Compliant (Pb-free)
- EP0™ Programmable Oscillators
- 5.0V Supply Voltage
- CMOS/TTL Output
- 8 Pin DIP Package
- Stability to ± 50 ppm
- Custom Lead Length and 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} $\pm 10\%$
Input Current		45mA Maximum (Unloaded)
Disable Current (TS Option)		30mA Maximum (Pin 1=Ground)
Standby Current (PD Option)		50 μ A 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	± 100 ppm or ± 50 ppm Maximum
Output Voltage Logic High (V_{OH})	w/TTL Load w/CMOS Load	2.4V _{DC} Minimum $I_{OH}=-16$ mA V _{DD} -0.4V _{DC} Minimum $I_{OH}=-16$ mA
Output Voltage Logic Low (V_{OL})	w/TTL Load or w/HCMOS Load	0.4V _{DC} Maximum $I_{OL}=+16$ mA
Rise Time / Fall Time	0.8V _{DC} to 2.0 V _{DC} w/TTL Load or 20% to 80% of Waveform w/CMOS Load	4 nSeconds Maximum
Duty Cycle	at 1.4V _{DC} w/TTL Load; at 50% of waveform w/CMOS Load at 1.4V _{DC} w/TTL Load (≤ 27.000 MHz only), or 50% of waveform w/CMOS Load (≤ 50.000 MHz only)	50 ± 10 (%) (Standard) 50 ± 5 (%) (Optional)
Load Drive Capability / Output Type-HCMOS	≤ 50.000 MHz >50.000MHz	50pF CMOS Load Maximum 15pF CMOS Load Maximum
Load Drive Capability / Output Type-TTL	≤ 40.000 MHz >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 $\geq 2.0V_{DC}$ V _{IL} : (TS Option) $\leq 0.8V_{DC}$ V _{IL} : (PD Option) $\leq 0.8V_{DC}$	Enables Output Disables Output: High Impedence Disables Output: Logic Low
Aging (at 25°C)		± 5 ppm / year Maximum
Start Up Time		10 mSeconds Maximum
RMS Jitter	<12.000MHz ≥ 12.000 MHz	50pSec Maximum, 13pSec Typical 13pSec Maximum, 8pSec Typical
Peak to Peak Jitter	<12.000MHz ≥ 12.000 MHz	500pSec Maximum, 90pSec Typical 100pSec Maximum, 50pSec Typical

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EP11

PACKAGE
8 pin DIP

VOLTAGE
5.0V

CLASS
OS45

REV. DATE
08/05

PART NUMBERING GUIDE

EP11 00 HS ET TS L - 24.000M - G 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(%)

OUTPUT CONTROL FUNCTION

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

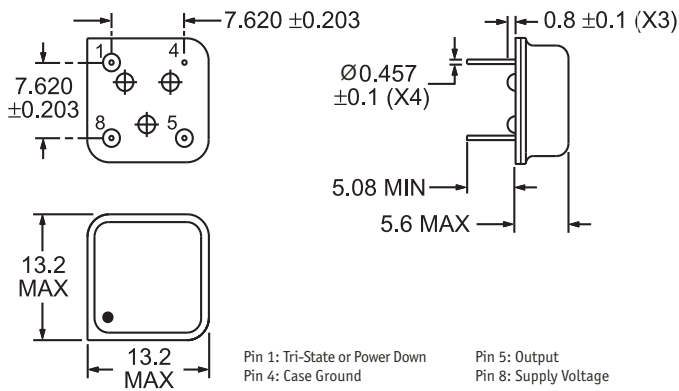
Blank=None (Standard)
CLXXX=Custom Lead Length (See Page 133)
G=Half Size Gull Wing (See Page 132)
G2=Half Size Gull Wing (See Page 132)

FREQUENCY

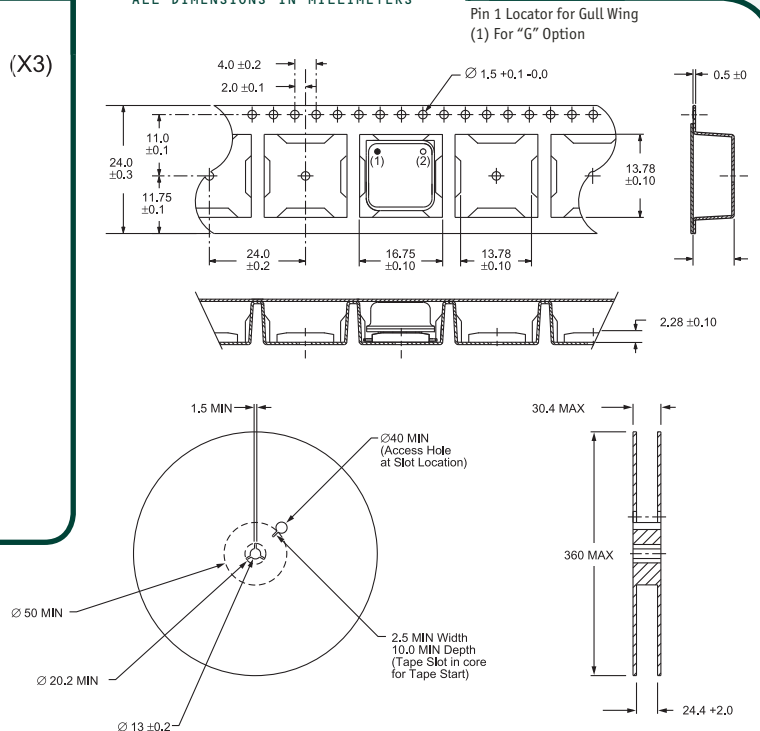
OUTPUT TYPE

L=TTL, C=CMOS

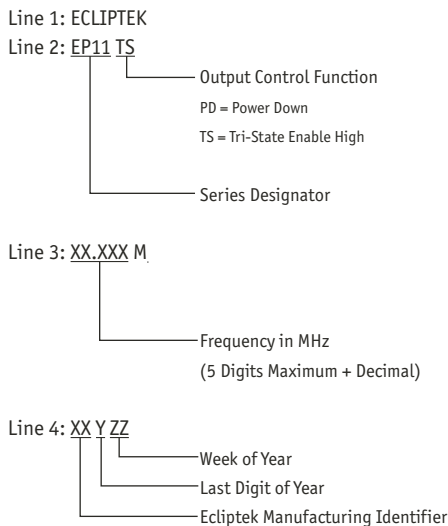
MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



MARKING SPECIFICATIONS



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
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	8 pin DIP	5.0V	OS45	08/05