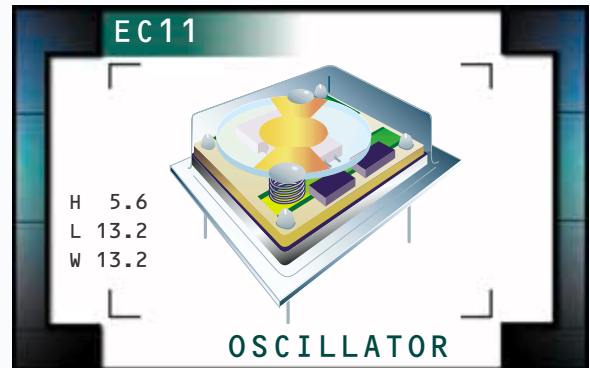


# EC11 Series

- HCMOS/TTL output
- 5.0V supply voltage
- 8 pin DIP package
- Stability to 20ppm
- Custom lead length, gull wing options available



## ELECTRICAL SPECIFICATIONS

<b>Frequency Range</b>		250.000kHz to 106.250MHz
<b>Operating Temperature Range</b>		0°C to 70°C or -40°C to 85°C
<b>Storage Temperature Range</b>		-55°C to 125°C
<b>Supply Voltage (V<sub>DD</sub>)</b>		5.0V <sub>DC</sub> ±10%
<b>Input Current</b>	250.000kHz to 24.000MHz	45mA Maximum
	24.001MHz to 50.000MHz	55mA Maximum
	50.001MHz to 66.667MHz	65mA Maximum
	66.668MHz to 106.250MHz	85mA Maximum
<b>Frequency Tolerance / Stability</b>	Inclusive of Operating Temperature Range, Supply Voltage, and Load	±100ppm, ±50ppm, ±25ppm, or ±20ppm Max. (0°C to 70°C Only)
<b>Output Voltage Logic High (V<sub>OH</sub>)</b>	w/TTL Load	2.4V <sub>DC</sub> Minimum
	w/HCMOS Load	V <sub>DD</sub> -0.5V <sub>DC</sub> Minimum
<b>Output Voltage Logic Low (V<sub>OL</sub>)</b>	w/TTL Load	0.4V <sub>DC</sub> Maximum
	w/HCMOS Load	0.5V <sub>DC</sub> Maximum
<b>Rise Time / Fall Time</b>	0.4V <sub>DC</sub> to 2.4V <sub>DC</sub> w/TTL Load; 20% to 80% of Waveform w/HCMOS Load ≤66.667MHz	6 nSeconds Maximum
	0.4V <sub>DC</sub> to 2.4V <sub>DC</sub> w/TTL Load; 20% to 80% of Waveform w/HCMOS Load >66.667MHz	3 nSeconds Maximum
<b>Duty Cycle</b>	at 1.4V <sub>DC</sub> w/TTL Load; at 50% of Waveform w/HCMOS Load	50 ±10% (Standard)
	at 1.4V <sub>DC</sub> w/TTL Load or w/HCMOS Load ≤66.667MHz	50 ±5% (Optional)
	at 50% of Waveform w/LSTTL Load or w/HCMOS Load >66.667MHz	50 ±5% (Optional)
<b>Load Drive Capability</b>	250.000kHz to 24.000MHz	10TTL Load or 50pF HCMOS Load
	24.001MHz to 66.667MHz	10TTL Load or 15pF HCMOS Load
	66.668MHz to 106.250MHz	10LSTTL Load or 15pF HCMOS Load
<b>Pin 1 Tri-State Input Voltage</b>	V <sub>IH</sub> :No Connection	Enables Output
	V <sub>IH</sub> :≥2.2V <sub>DC</sub>	Enables Output
	V <sub>IL</sub> :≤0.8V <sub>DC</sub>	Disables Output: High Impedance
<b>Aging (at 25°C)</b>		±5ppm / year Maximum
<b>Start Up Time</b>		10mSeconds Maximum
<b>Period Jitter: Absolute</b>		±100pSeconds Maximum
<b>Period Jitter: One Sigma</b>		±25pSeconds Maximum

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EC11	PACKAGE 8 pin DIP	VOLTAGE 5.0V	CLASS OS05	REV. DATE 06/00
--------------------------------	------------------------	----------------	----------------------	-----------------	---------------	--------------------

## PART NUMBERING GUIDE

### EC11 00 HS ETTTS - 64.000M - G TR

#### FREQUENCY TOLERANCE / STABILITY

00=±100ppm Max. (Standard), 45=±50ppm Max.  
25=±25ppm Max., 20=±20ppm Max.

#### PACKAGE

HS=Half Size 8 Pin DIP

#### OPERATING TEMP. RANGE

Blank=0°C to 70°C (Standard), ET=-40°C to 85°C

#### DUTY CYCLE

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

#### PIN 1 CONNECTION

Blank=No Connection (Standard), TS=Tri-State Enable High

#### PACKAGING OPTIONS

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

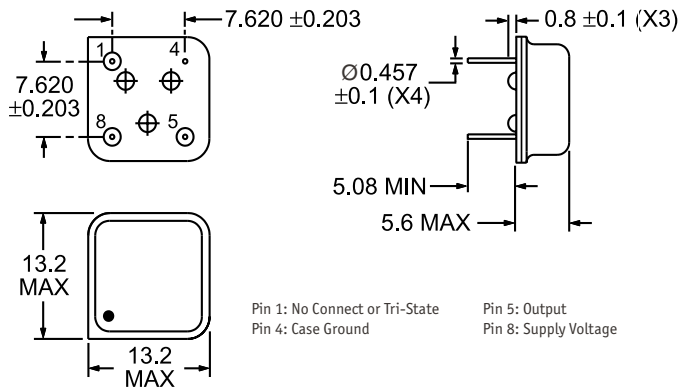
#### AVAILABLE OPTIONS

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)

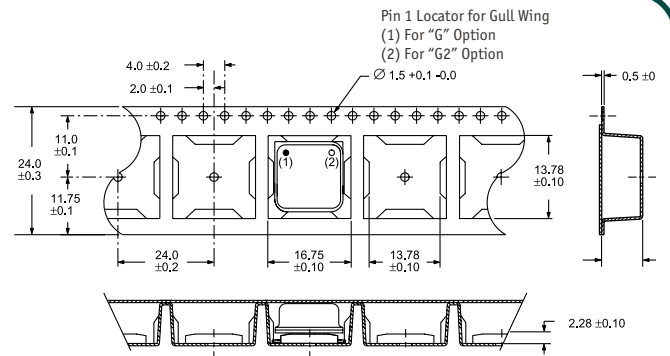
#### FREQUENCY

K=kHz, M=MHz

#### MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



#### TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



#### MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: EC11 TS

Pin 1 Connection  
Blank = No Connection  
TS = Tri-State Enable High  
Series Designator

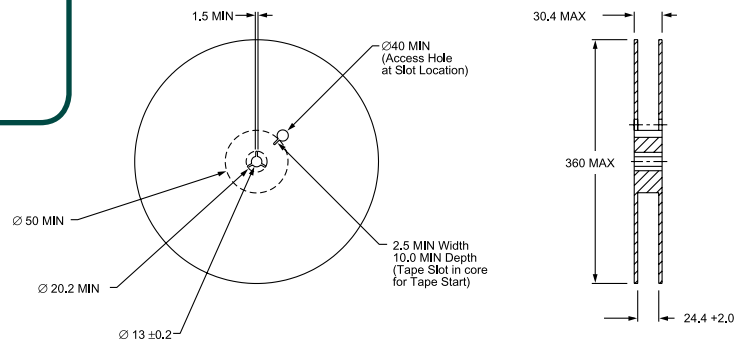
Line 3: XX.XXX M

M=MHz, K=kHz  
Frequency (5 Digits Maximum + Decimal)

Line 4: XX Y ZZ

Week of Year  
Last Digit of Year  
Ecliptek Manufacturing Identifier

Note: Pin 1 shall be designated with a dot



700 Pieces Per Reel  
Compliant to EIA-481A

#### 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	EC11	8 pin DIP	5.0V	OS05	06/00