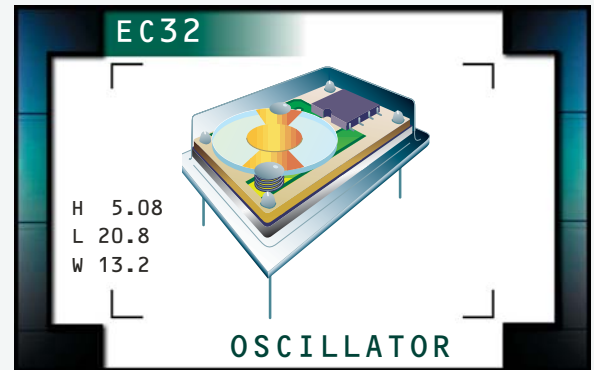


EC32 Series

- Voltage Controlled Crystal Oscillator (VCXO)
- 3.3V Supply Voltage
- HCMOS/TTL output
- 14 pin DIP package
- Stability to 20ppm
- Wide frequency and pull range



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range		1.000MHz to 44.736MHz
Operating Temperature Range		0°C to 70°C or -40°C to +85°C
Storage Temperature Range		-55°C to +125°C
Supply Voltage (V_{DD})		3.3V _{DC} ±10%
Aging (at 25°C)		±5ppm / year Maximum
Load Drive Capability		2TTL Load or 15pF HCMOS Load Maximum
Start Up Time		10 mSeconds Maximum
Frequency Deviation / Control Voltage	1.65V _{DC} ±1.65V _{DC} Positive Transfer Characteristic, or	±50ppm Minimum
	1.65V _{DC} ±1.65V _{DC} Positive Transfer Characteristic	±100ppm Minimum
Linearity		±20% Maximum, ±15% Maximum, or 10% Maximum
Input Current	1.000MHz to 20.000MHz	10mA Maximum
	20.001MHz to 44.736MHz	20mA Maximum
Frequency Tolerance / Stability		Inclusive of Operating Temperature Range, Supply Voltage, and Load ±100ppm, ±50ppm, ±25ppm, or ±20ppm Maximum (0°C to 70°C Only)
Output Voltage Logic High (V_{OH})	w/TTL Load	2.4V _{DC} Minimum
	w/HCMOS Load	2.7V _{DC} Minimum
Output Voltage Logic Low (V_{OL})		w/TTL Load or w/HCMOS Load 0.4V _{DC} Maximum
Duty Cycle	at 50% of Waveform	50 ±10(%) (Standard)
	at 50% of Waveform	50 ±5(%) (Optional)
Rise Time / Fall Time		0.4V _{DC} to 2.4V _{DC} w/TTL Load; 20% to 80% of Waveform w/HCMOS Load 5 nSeconds Maximum
Period Jitter: Absolute		±100pSeconds Maximum
Period Jitter: One Sigma		±25pSeconds Maximum

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EC32	PACKAGE 14 pin DIP	VOLTAGE 3.3V	CLASS OS46	REV. DATE 03/02
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PART NUMBERING GUIDE

EC32 00 T A 15 ET - 24.000M - G

FREQUENCY TOLERANCE / STABILITY

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

DUTY CYCLE

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

FREQUENCY DEVIATION

Blank=±50ppm Minimum (Standard)
A=±100ppm Minimum

AVAILABLE OPTIONS

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

FREQUENCY

OPERATING TEMP. RANGE

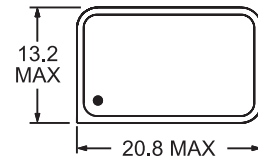
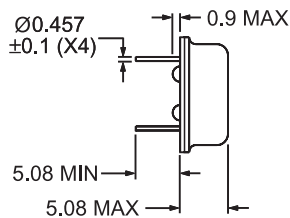
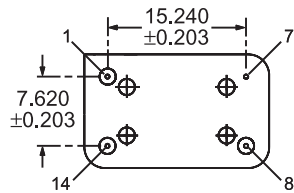
Blank=0°C to 70°C (Standard)
ET=-40°C to 85°C

LINEARITY

Blank=20% Maximum (Standard)
15=15% Maximum
10=10% Maximum

NOTES

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



Pin 1: Control Voltage (V_c)
Pin 7: Case Ground

Pin 8: Output
Pin 14: Supply Voltage

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.

MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: EC32

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

Note: Pin 1 shall be designated with a dot

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC32	14 pin DIP	3.3V	0546	03/02