

Product EOL Announcement

The Product EOL Announcement signifies that a product series has entered the final phase of the Ecliptek Product Life Cycle, and serves as advance notice of product termination per the Ecliptek End of Life (EOL) policy.

Ecliptek Corporation announces End of Life initiation for the following product series with the intent of discontinuing its availability.

EOL Series	Description
EC32	RoHS Compliant (Pb-free) 3.3V 8 Pin or 14 Pin DIP Metal Thru-Hole LVCMOS/TTL VCXO

EOL Timeline

The last date Ecliptek will accept orders (Stage 2) and the last date orders may be scheduled for shipment (Stage 3) are listed in the table below.

Stage 1 EOL Announce Date	Stage 2 Last Date to Order	Stage 3 Last Date to Ship
20-April-2010	1-September-2010	1-December-2010

Alternative Products

In order to fulfill your requirements beyond this product's discontinuation, we invite you to evaluate the recommended alternative Ecliptek product series referenced below. Please click on the link to view the data sheet.

Alternative Series	Description
EMVA13	RoHS Compliant (Pb-free) 4 Pad 5mm x 7mm SMD 3.3Vdc LVCMOS Voltage Controlled MEMS Oscillator

Automated EOL Notification

Ecliptek offers automated notification of Product EOL Announcements. Place part numbers for which you'd like to receive EOL Notifications into your personalized [Parts List](#) on our website and we'll email you when EOL is announced.

Please do not hesitate to contact us if you have any questions or need further assistance.

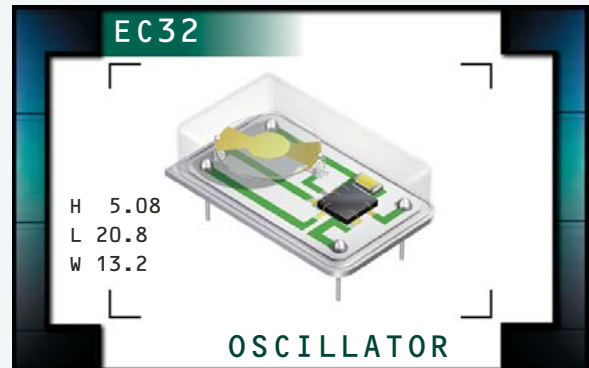
Ecliptek Global Customer Support Team
(800) 433-1280 x300
customersupport@ecliptek.com

EC32 Series



ECLIPTEK[®]
CORPORATION

- Voltage Controlled Crystal Oscillators (VCX0)
- CMOS/TTL Output
- +3.3V Supply Voltage
- External Voltage Control Function
- Custom Lead Length & Gull Wing Options
- 14 pin DIP Metal Package
- RoHS Compliant (Pb-free)



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range (MHz)	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 LVCMOS Load Maximum	
Start Up Time	10 mSeconds Maximum	
Frequency Deviation / Control Voltage	1.65V _{DC} ±1.65V _{DC} Positive Transfer Characteristic, or 1.65V _{DC} ±1.65V _{DC} Positive Transfer Characteristic	±50ppm Minimum ±100ppm Minimum
Linearity	±20% Maximum, ±15% Maximum, or 10% Maximum	
Input Current	1.000MHz to 20.000MHz 20.001MHz to 44.736MHz	10mA Maximum 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 w/LVCMOS Load	2.4V _{DC} Minimum 2.7V _{DC} Minimum
Output Voltage Logic Low (V_{OL})	w/TTL Load or w/LVCMOS Load	0.4V _{DC} Maximum
Duty Cycle	at 50% of Waveform at 50% of Waveform	50 ±10(%) (Standard) 50 ±5(%) (Optional)
Rise Time / Fall Time	0.4V _{DC} to 2.4V _{DC} w/TTL Load; 20% to 80% of Waveform w/LVCMOS 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
0546

REV. DATE
08/06

PART NUMBERING GUIDE

EC32 00 T A 15 ET - 24.000M - G

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum
 45=±50ppm Maximum, 25=±25ppm Maximum
 20=±20ppm Maximum

DUTY CYCLE

Blank=50 ±10(%), T=50 ±5(%)

FREQUENCY DEVIATION

Blank=±50ppm Minimum
 A=±100ppm Minimum

AVAILABLE OPTIONS

Blank=None
 CLXXX=Custom Lead Length
 G=Full Size Gull Wing

FREQUENCY

OPERATING TEMP. RANGE

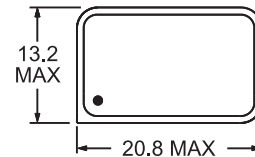
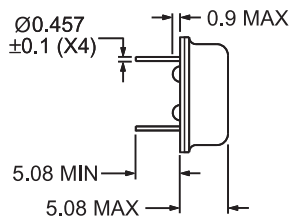
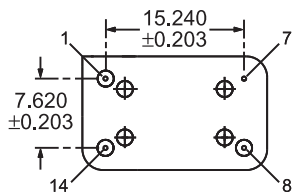
Blank=0°C to 70°C
 ET=-40°C to 85°C

LINEARITY

Blank=20% Maximum
 15=15% Maximum
 10=10% Maximum

NOTES

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



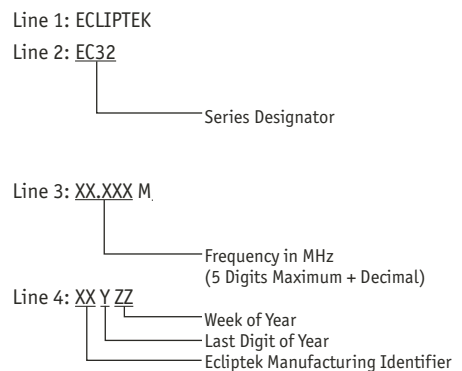
Pin 1: Control Voltage (V_c)
 Pin 7: Case Ground

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



Note: Pin 1 shall be designated with a dot

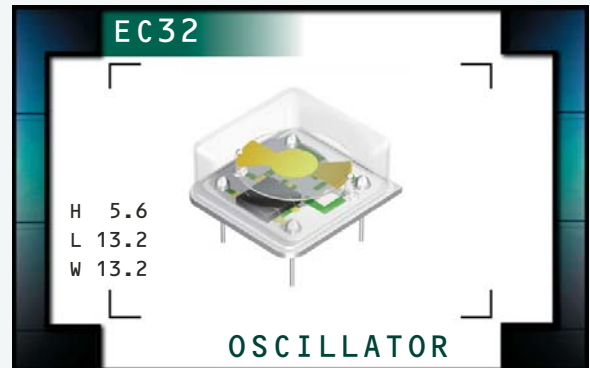
MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC32	14 pin DIP	3.3V	OS46	08/06

EC32 Series



ECLIPTEK[®]
CORPORATION

- Voltage Controlled Crystal Oscillators (VCX0)
- CMOS/TTL Output
- +3.3V Supply Voltage
- External Voltage Control Function
- Custom Lead Length & Gull Wing Options
- 8 pin DIP Metal Package
- RoHS Compliant (Pb-free)



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range (MHz)		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 LVCMOS Load Maximum
Start Up Time		10 mSeconds Maximum
Frequency Deviation / Control Voltage	1.65V _{DC} ±1.65V _{DC} Positive Transfer Characteristic, or 1.65V _{DC} ±1.65V _{DC} Positive Transfer Characteristic	±50ppm Minimum ±100ppm Minimum
Linearity		±20% Maximum, ±15% Maximum, or 10% Maximum
Input Current	1.000MHz to 20.000MHz 20.001MHz to 44.736MHz	10mA Maximum 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 w/LVCMOS Load	2.4V _{DC} Minimum 2.7V _{DC} Minimum
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Period Jitter: Absolute		±100pSeconds Maximum
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MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EC32

PACKAGE
8 pin DIP

VOLTAGE
3.3V

CLASS
0547

REV. DATE
08/06

PART NUMBERING GUIDE

EC32 00 HST A 15 ET - 24.000M - G TR

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum
 45=±50ppm Maximum, 25=±25ppm Maximum
 20=±20ppm Maximum

PACKAGE

HS=Half Size 8 Pin DIP

DUTY CYCLE

Blank=50±10(%), T=50±5(%)

FREQUENCY DEVIATION

Blank=±50ppm Minimum
 A=±100ppm Minimum

PACKAGING OPTIONS

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

AVAILABLE OPTIONS

Blank=None (Standard)
 CLXX=Custom Lead Length
 G=Half Size Gull Wing
 G2=Alternate Half Size Gull Wing

FREQUENCY

OPERATING TEMP. RANGE

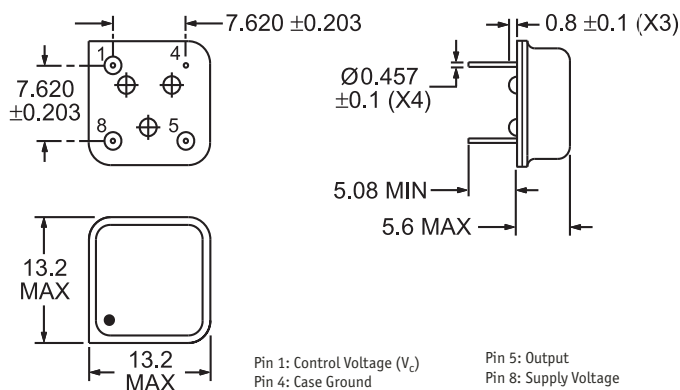
Blank=0°C to 70°C
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Blank=20% Maximum
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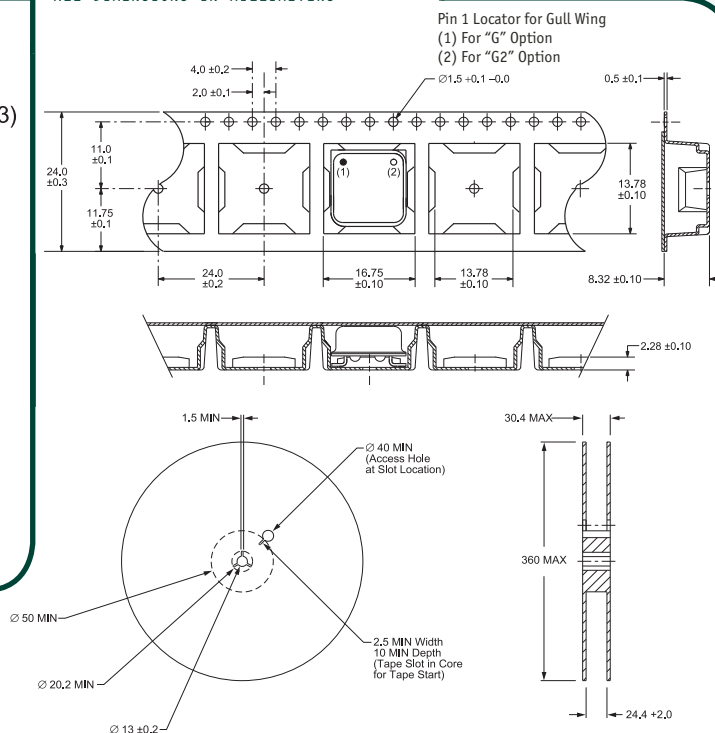
MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



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

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.
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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.

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ECLIPTEK CORP.	OSCILLATOR	EC32	8 pin DIP	3.3V	OS47	08/06