

## Marketing Bulletin

**DATE:** September 20<sup>th</sup>, 2006  
**TO:** All Sales Personnel  
**FROM:** Isaac Gonzalez  
**RE:** Product Termination

To all concerned parties,

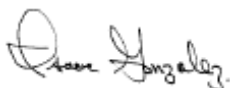
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective September 20<sup>th</sup>, 2006:

<b>Series</b>	<b>Description</b>	<b>Recommended Replacement</b>
EC14	5V 4 pad SMD Plastic Oscillator	<a href="#">EP14</a> or <a href="#">EH14</a>

In compliance with our End of Life (EOL) policy, this will serve as advanced notice of product termination. New orders will not be accepted after March 31<sup>st</sup>, 2007, with delivery to conclude by September 30<sup>th</sup>, 2007.

If there are any questions pertaining to this bulletin, please feel free to contact me. Thank you again for your cooperation.

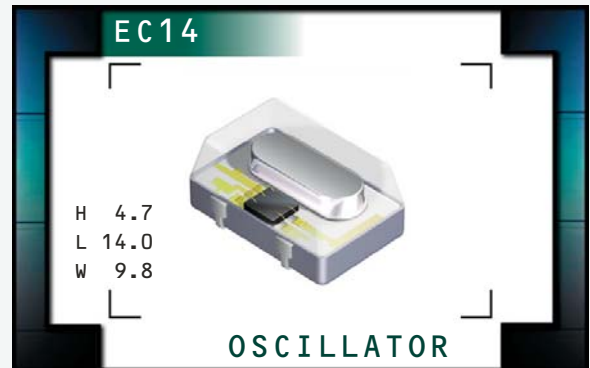
Best Regards,



Isaac Gonzalez  
Configuration Manager  
Ecliptek Corporation

# EC14 Series

- Plastic surface mount package
- 5.0V supply voltage
- HCMOS/TTL output
- Stability to  $\pm 50$ ppm
- Available on tape and reel



OBSOLETE

## ELECTRICAL SPECIFICATIONS

<b>Frequency Range (MHz)</b>		1.000MHz to 66.667MHz
<b>Operating Temperature Range</b>		0°C to 70°C or -40°C to 85°C ( $\leq 30.000$ MHz)
<b>Storage Temperature Range</b>		-55°C to 125°C
<b>Supply Voltage (<math>V_{DD}</math>)</b>		5.0V <sub>DC</sub> $\pm 10\%$
<b>Frequency Tolerance / Stability*</b>	Inclusive of Operating Temperature Range, Supply Voltage, and Load	$\pm 100$ ppm Maximum or $\pm 50$ ppm Maximum (0°C to 70°C Only)
<b>Input Current</b>	$\leq 30.000$ MHz 30.001MHz to 50.000MHz >50.000MHz	23mA Maximum (Unloaded) 35mA Maximum (Unloaded) 50mA Maximum (Unloaded)
<b>Load Drive Capability</b>	$\leq 53.125$ MHz >53.125MHz	10TTL Load or 50pF HCMOS Load 15pF HCMOS Load
<b>Output Voltage Logic High (<math>V_{OH}</math>)</b>	w/TTL Load w/HCMOS Load	2.4V <sub>DC</sub> Minimum $I_{OH} = -16$ mA $V_{DD} - 0.5V_{DC}$ Minimum $I_{OH} = -16$ mA
<b>Output Voltage Logic Low (<math>V_{OL}</math>)</b>	w/TTL Load w/HCMOS Load	0.4V <sub>DC</sub> Maximum $I_{OL} = +16$ mA 0.5V <sub>DC</sub> Maximum $I_{OL} = +16$ mA
<b>Duty Cycle</b>	at 50% of waveform w/HCMOS Load at 1.4V <sub>DC</sub> w/TTL Load at 1.4V <sub>DC</sub> w/HCMOS Load or w/TTL Load	50 $\pm 10$ (%) (Standard) 50 $\pm 5$ (%) (Optional)
<b>Rise Time / Fall Time</b>	20% to 80% of waveform w/HCMOS Load; 0.4V <sub>DC</sub> to 2.4V <sub>DC</sub> w/TTL Load	8 nSeconds Maximum
<b>Aging (at 25°C)</b>		$\pm 5$ ppm / year Maximum
<b>Tri-State Input Voltage</b>	No Connection $V_{IH} : \geq 2.0V_{DC}$ $V_{IL} : \leq 0.8V_{DC}$	Enables Output Enables Output Disables Output: High Impedance
<b>Start Up Time</b>	1.000MHz to 26.000MHz 26.001MHz to 66.667MHz	4 mSeconds Maximum 10 mSeconds Maximum
<b>Period Jitter: Absolute</b>		$\pm 100$ ppSeconds Maximum
<b>Period Jitter: One Sigma</b>		$\pm 25$ ppSeconds Maximum

## PART NUMBERING GUIDE

### EC14 00 SJ ET TS - 25.000M TR

**FREQUENCY TOLERANCE / STABILITY**

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

**OPERATING TEMP. RANGE**

Blank=0°C to 70°C  
ET=-40°C to 85°C

**DUTY CYCLE**

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

**PACKAGING OPTIONS**

Blank=Bulk  
TR=Tape and Reel (Standard)

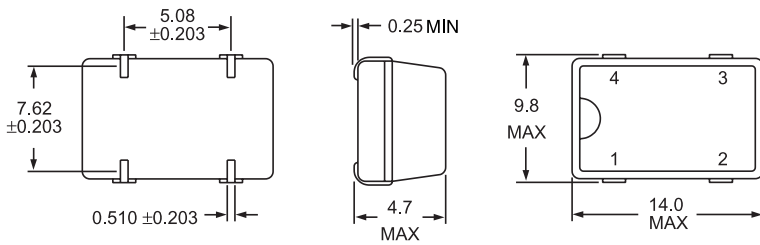
**FREQUENCY**

**OUTPUT CONTROL FUNCTION**

TS=Tri-State Enable High

OBSOLETE

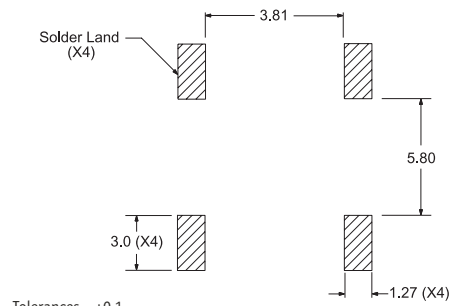
**MECHANICAL DIMENSIONS**  
ALL DIMENSIONS IN MILLIMETERS



Pin 1: Tri-State  
Pin 2: Case Ground

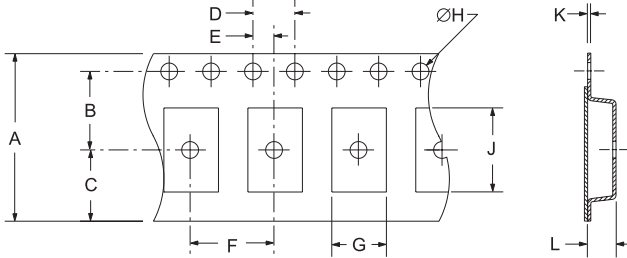
Pin 3: Output  
Pin 4: Supply Voltage

**SUGGESTED SOLDER PAD LAYOUT**  
ALL DIMENSIONS IN MILLIMETERS



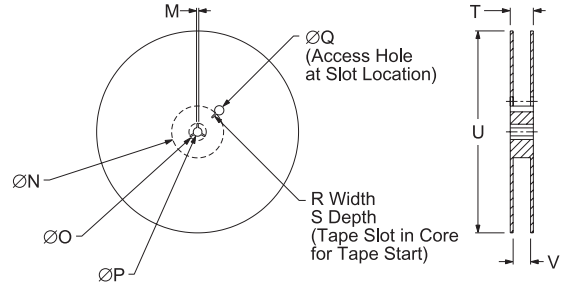
Tolerances = ±0.1

**TAPE AND REEL DIMENSIONS**  
ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
	24 ±.3	11.5 ±.1	10.75 ±.1	4 ±.2	2 ±.1
F	G	H	J	K	L
12 ±.2	B0*	1.5 +.1-0	A0*	.3 ±.1	K0*

\*Compliant to EIA 481A



REEL	M	N	O	P	Q
	1.5 MIN	50 MIN	20.2 MIN	13 ±.2	40 MIN
R	S	T	U	V	QTY/REEL
2.5 MIN	10 MIN	30.4 MAX	360 MAX	24.4+2-0	1,000

**ENVIRONMENTAL/MECHANICAL SPECIFICATIONS**

Characteristic	Specification
Seal Integrity	Bubble test in Perfluorocarbon at +125°C ±5°C for 60 seconds minimum (internal crystal only).
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: XX.XXX M  
 Frequency in MHz (5 Digits Maximum + Decimal)  
 Line 3: XX Y ZZ  
 Week of Year  
 Last Digit of Year  
 Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC14	PLASTIC	5.0V	OS33	08/06