

## Marketing Bulletin

**DATE:** September 20<sup>th</sup>, 2006  
**TO:** All Sales Personnel  
**FROM:** Mark Stoner  
**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	EP14 or EH14

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.

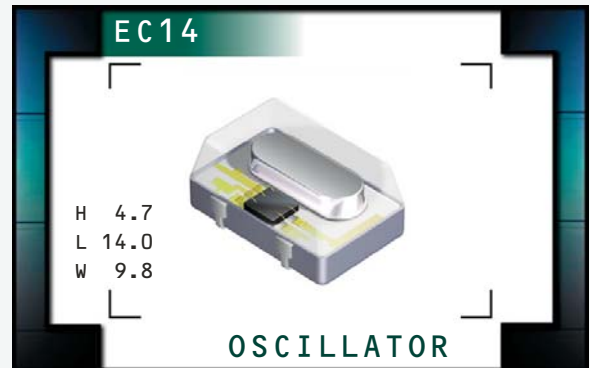
Best Regards,



Mark W. Stoner  
Vice President of Marketing  
Ecliptek Corporation

# EC14 Series

- Plastic surface mount package
- 5.0V supply voltage
- HCMOS/TTL output
- Stability to  $\pm 50\text{ppm}$
- 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 ( $\leq 30.000\text{MHz}$ )
<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	$\pm 100\text{ppm}$ Maximum or $\pm 50\text{ppm}$ Maximum (0°C to 70°C Only)
<b>Input Current</b>	$\leq 30.000\text{MHz}$ 30.001MHz to 50.000MHz >50.000MHz	23mA Maximum (Unloaded) 35mA Maximum (Unloaded) 50mA Maximum (Unloaded)
<b>Load Drive Capability</b>	$\leq 53.125\text{MHz}$ >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 $I_{OH} = -16\text{mA}$ $V_{DD} - 0.5V_{DC}$ Minimum $I_{OH} = -16\text{mA}$
<b>Output Voltage Logic Low (<math>V_{OL}</math>)</b>	w/TTL Load w/HCMOS Load	0.4V <sub>DC</sub> Maximum $I_{OL} = +16\text{mA}$ 0.5V <sub>DC</sub> Maximum $I_{OL} = +16\text{mA}$
<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>		$\pm 5\text{ppm}$ / 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>		$\pm 100\text{pSeconds}$ Maximum
<b>Period Jitter: One Sigma</b>		$\pm 25\text{pSeconds}$ 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)

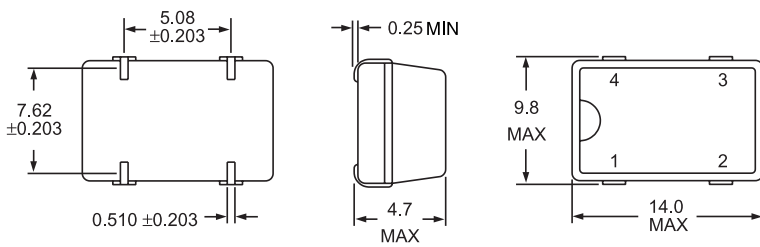
**FREQUENCY**

**OUTPUT CONTROL FUNCTION**

TS=Tri-State Enable High

OBSOLETE

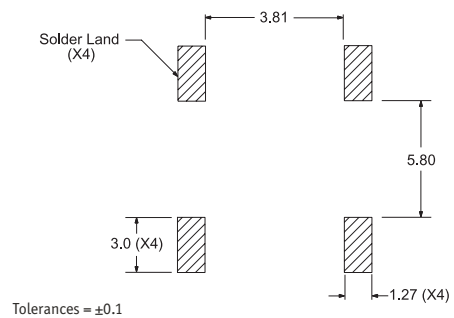
**MECHANICAL DIMENSIONS**  
ALL DIMENSIONS IN MILLIMETERS



Pin 1: Tri-State  
Pin 2: Case Ground

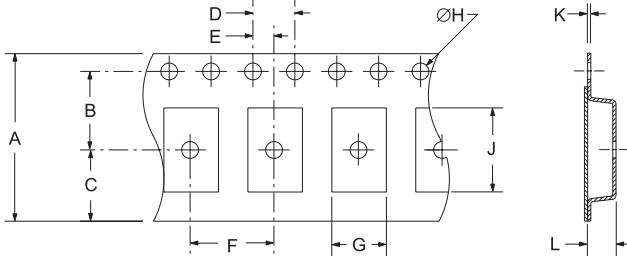
Pin 3: Output  
Pin 4: Supply Voltage

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



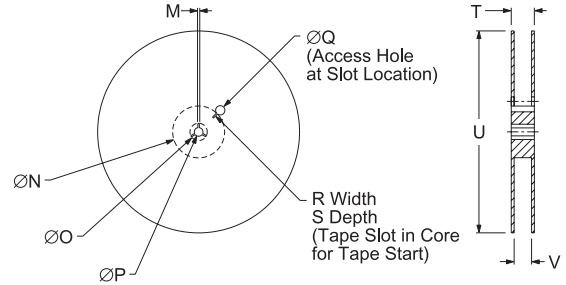
Tolerances = ±0.1

**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  
Eclipsek Manufacturing Identifier

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