



ECLIPTEK®
CORPORATION

Marketing Bulletin

DATE: September 20th, 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 20th, 2006:

Series	Description	Recommended Replacement
EC33	2.5V 4 pad SMD Plastic Oscillator	EC27 or EC37

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 31st, 2007, with delivery to conclude by September 30th 2007.

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

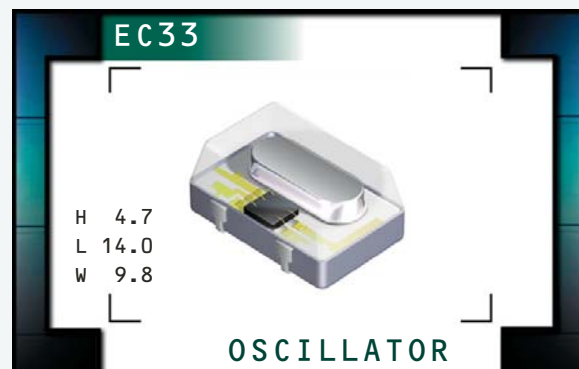
Best Regards,

Mark W. Stoner
Vice President of Marketing
Ecliptek Corporation



EC33 Series

- Plastic surface mount package
- 2.5V supply voltage
- HCMOS output
- Stability to $\pm 50\text{ppm}$
- Available on tape and reel



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range (MHz)		1.544MHz to 32.768MHz
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})		2.5V _{DC} $\pm 5\%$
Aging (at 25°C)		$\pm 5\text{ppm} / \text{year}$ Maximum
Input Current	$\leq 24.000\text{MHz}$	10mA Maximum
	$> 24.000\text{MHz}$	20mA Maximum
Frequency Tolerance / Stability*		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)
Output Voltage Logic High (V_{OH})		90% of V_{DD} Minimum $I_{OH} = -4\text{mA}$
Output Voltage Logic Low (V_{OL})		10% of V_{DD} Maximum $I_{OL} = +4\text{mA}$
Rise Time / Fall Time	$\leq 24.000\text{MHz}$ 20% to 80% of Waveform	6 nSec Maximum
	$> 24.000\text{MHz}$ 20% to 80% of Waveform	4 nSec Maximum
Duty Cycle		at 50% of Waveform
		50 $\pm 10\%$ (Standard) or 50 $\pm 5\%$ (Optional)
Load Drive Capability		15pF HCMOS Load Maximum
Tri-State Input Voltage	No Connection	Enables Output
	$V_{IH} \geq 90\%$ of V_{DD}	Enables Output
	$V_{IL} \leq 10\%$ of V_{DD}	Disables Output: High Impedance
Start Up Time		10 mSeconds Maximum
Period Jitter: Absolute		$\pm 100\text{pSeconds}$ Maximum
Period Jitter: One Sigma		$\pm 25\text{pSeconds}$ Maximum

PART NUMBERING GUIDE

EC33 00 SJ ET T TS - 25.000M TR

FREQUENCY TOLERANCE / STABILITY

00= ± 100 ppm Maximum (Standard)

45= ± 50 ppm Maximum

OPERATING TEMP. RANGE

Blank= 0°C to 70°C

ET= -40°C to 85°C

DUTY CYCLE

Blank= $50 \pm 10(\%)$ (Standard)

T= $50 \pm 5(\%)$

PACKAGING OPTIONS

Blank=Bulk

TR=Tape and Reel (Standard)

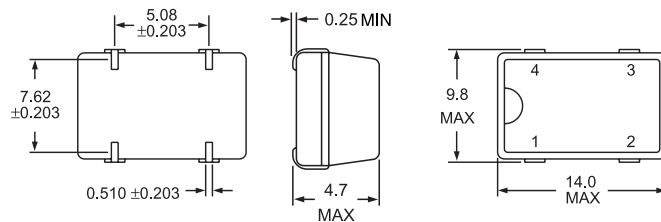
FREQUENCY

OUTPUT CONTROL FUNCTION

TS=Tri-State Enable High

MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS

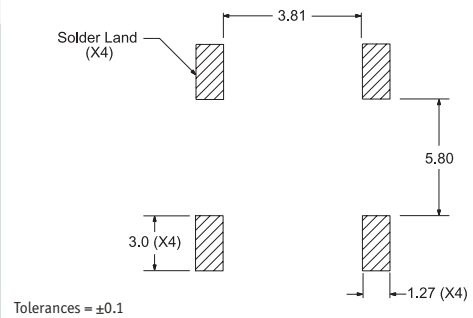


Pin 1: Tri-State
Pin 2: Case Ground

Pin 3: Output
Pin 4: Supply Voltage

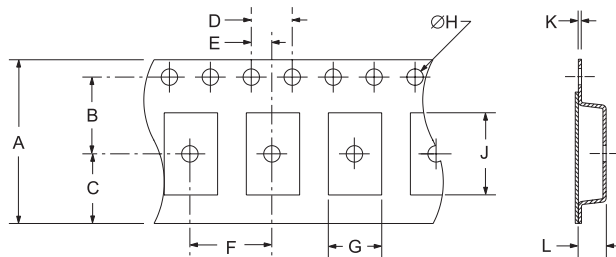
SUGGESTED SOLDER PAD LAYOUT

ALL DIMENSIONS IN MILLIMETERS

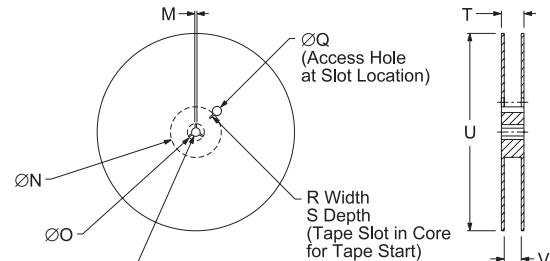


TAPE AND REEL DIMENSIONS

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*



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	1000

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
Seal Integrity	Bubble test in Perfluorocarbon at $+125^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 60 seconds minimum (internal crystal only).
Solderability	Sn63 Solder dip at $+230^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 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

Eclipse Manufacturing Identifier