

Marketing Bulletin

DATE: January 1st, 2006
TO: All Sales Personnel
FROM: Mark Stoner
RE: Product Termination

To all concerned parties,

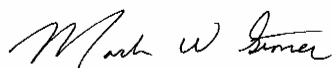
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective January 1st, 2006:

Series	Description	Recommended Replacement
EB13D1	3.3V 5 x 3.2mm SMD Oscillator	EC36

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 April 1st, 2006, with delivery to conclude by July 1st 2006.

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
Director of Marketing
Ecliptek Corporation

EB13D1 Series



- RoHS Compliant (Pb-Free)
- Low Jitter
- Ceramic SMD package
- 3.3V supply voltage
- LVHCMOS
- Stability to 20ppm
- Standby Function
- Available in tube or tape and reel



NOTES

OBSOLETE

ELECTRICAL SPECIFICATIONS

Frequency Range		19.440MHz to 100.000MHz
Operating Temperature Range		0°C to 70°C -40°C to 85°C
Storage Temperature Range		-55°C to 125°C
Supply Voltage (V_{DD})		3.3V _{DC} ±10%
Input Current	19.440MHz to 34.999MHz	10mA Maximum
	35.000MHz to 49.999MHz	25mA Maximum
	50.000MHz to 100.000MHz	35mA Maximum
Frequency Tolerance / Stability	Inclusive of all conditions: Calibration Tolerance at 25°C, Frequency Stability over the Operating Temperature Range, Supply Voltage Change, Output Load Change, First Year Aging at 25°C, Shock, and Vibration	±100ppm, ±50ppm, ±25ppm or ±20ppm Maximum
Output Voltage Logic High (V_{OH})		90% of V _{DD} Min. I _{OH} = -8mA
Output Voltage Logic Low (V_{OL})		10% of V _{DD} Max. I _{OL} = +8mA
Rise / Fall Time	20% to 80% of Waveform from 19.440MHz to 35.000MHz	6 nSec Maximum
	20% to 80% of Waveform from 35.001MHz to 80.000MHz	4 nSec Maximum
	20% to 80% of Waveform from 80.001MHz to 100.000MHz	2 nSec Maximum
Duty Cycle	at 50% of Waveform	50 ±10(%)
	at 50% of Waveform	50 ±5(%)
Load Drive Capability	≤ 35.000MHz	30pF HCMOS Load Maximum
	> 35.001MHz	15pF HCMOS Load Maximum
Tri-State Input Voltage	No Connection	Enables Output
	V _{IH} : ≥90% of V _{DD}	Enables Output
	V _{IL} : ≤10% of V _{DD}	Disables Output: High Impedance
Standby Current	Disabled Output: High Impedance	10µA Maximum
Start Up Time		10 mSec Maximum
RMS Phase Jitter	19.440MHz to 40.000MHz, F _J = 12kHz to 20MHz	5 pSec Maximum
	40.001MHz to 70.000MHz, F _J = 12kHz to 20MHz	3 pSec Maximum
	70.001MHz to 100.000MHz, F _J = 12kHz to 20MHz	1 pSec Maximum

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB13D1	CERAMIC	3.3V	OS2U	12/03

PART NUMBERING GUIDE

EB13D1 F 2 H - 40.000M TR

FREQUENCY TOLERANCE / STABILITY

C=±100ppm Maximum over 0°C to +70°C
 D=±50ppm Maximum over 0°C to +70°C
 E=±25ppm Maximum over 0°C to +70°C
 F=±20ppm Maximum over 0°C to +70°C
 G=±100ppm Maximum over -40°C to +85°C
 H=±50ppm Maximum over -40°C to +85°C
 J=±25ppm Maximum over -40°C to +85°C
 K=±20ppm Maximum over -40°C to +85°C

PACKAGING OPTIONS

Blank=Bulk, TR=Tape and Reel (Standard)

FREQUENCY

OUTPUT CONTROL FUNCTION

H=Tri-State

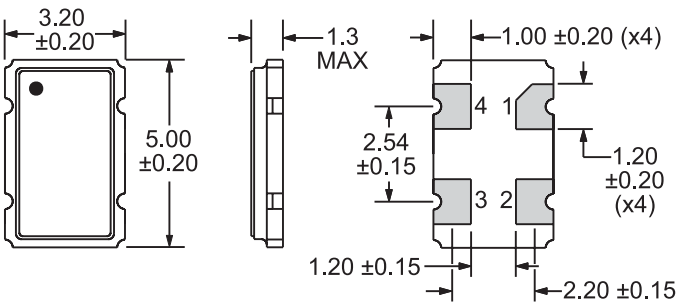
DUTY CYCLE

1=50 ±10(%)
 2=50 ±5(%)

OBSOLETE

MECHANICAL DIMENSIONS

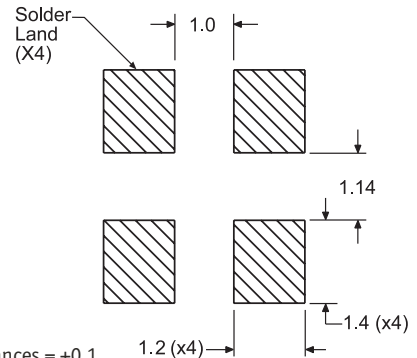
ALL DIMENSIONS IN MILLIMETERS



Pin 1: Tri-State
 Pin 2: Case Ground
 Pin 3: Output
 Pin 4: Supply Voltage

SUGGESTED SOLDER PAD LAYOUT

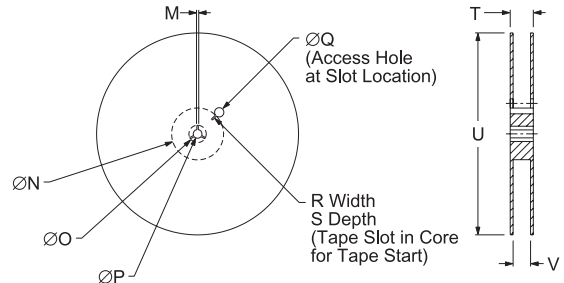
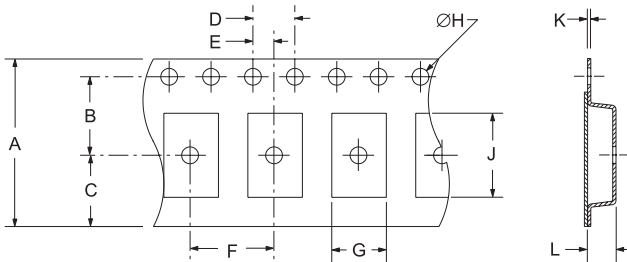
ALL DIMENSIONS IN MILLIMETERS



Tolerances = ±0.1

TAPE AND REEL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
	12.0±0.2	5.5±0.1	6.5±0.1	4.0±0.1	2.0±0.1
F	G	H	J	K	L
8.0±0.1	B0*	1.5 +0.1-0.0	A0*	0.30 ±0.05	K0*

REEL	M	N	O	P	Q
	1.5 MIN	50 MIN	20.2 MIN	13.0±0.2	40 MIN
R	S	T	U	V	QTY/REEL
2.5 MIN	10 MIN	18.4 MAX	180 MAX	12.4+2-0	1,000

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic

Fine Leak Test
 Gross Leak Test
 Mechanical Shock
 Vibration
 Solderability
 Temperature Cycling
 Resistance to Soldering Heat
 Resistance to Solvents

Specification

MIL-STD-883, Method 1014, Condition A
 MIL-STD-883, Method 1014, Condition C
 MIL-STD-202, Method 213, Condition C
 MIL-STD-883, Method 2007, Condition A
 MIL-STD-883, Method 2002
 MIL-STD-883, Method 1010
 MIL-STD-202, Method 210
 MIL-STD-202, Method 215

MARKING SPECIFICATIONS

Line 1: E XX.XXX
 Frequency in MHz (5 Digits Maximum + Decimal)

Line 2: XX Y ZZ
 Week of Year
 Last Digit of Year
 Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB13D1	CERAMIC	3.3V	OS2U	12/03