

Marketing Bulletin

DATE: March 24th, 2006
TO: All Sales Personnel
FROM: Mark Stoner
RE: Product Termination

To all concerned parties,

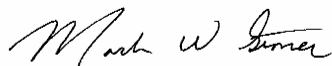
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective March 24th, 2006:

Series	Description	Recommended Replacement
E13C9	3.3V 5 x 7mm SMD LVPECL Oscillator	E13C7 or E13D8

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 July 1st, 2006, with delivery to conclude by October 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

E13C9 Series



- RoHS Compliant (Pb-Free)
- LVPECL Output Oscillators
- 3.3V Supply Voltage
- AT-Cut Fundamental Mode Inverted Mesa Crystal
- Ceramic 6-pad SMD Package
- Stability to 25ppm
- Tri-State Enable High and Enable Low Options Available on Pad 1 or Pad 2
- Complementary Output
- Wide Range of Available Frequencies



OBSOLETE

ELECTRICAL SPECIFICATIONS

Nominal Frequency	19.440MHz to 200.000MHz	
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_{CC})	3.3V _{DC} ±5%	
Input Current	75mA 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, 1st Year Aging at 25°C, Shock, and Vibration	±100ppm, ±50ppm, or ±25ppm Maximum
Output Voltage Logic High (V_{OH})	V _{CC} -1.025V _{DC} Minimum	
Output Voltage Logic Low (V_{OL})	V _{CC} -1.620V _{DC} Maximum	
Rise Time / Fall Time	20% to 80% of waveform	1.5 nSeconds Maximum, 600 pSec Typical
Duty Cycle	at 50% of waveform	50 ±10% 50 ±5%
Load Drive Capability	50 Ohms into V _{CC} -2.0V _{DC}	
Logic Control / Additional Output	No Connect and Complementary Output or Tri-State and Complementary Output	
Enable High Tri-State Input Voltage	Enable High or Enable Low V _{IH} of 70% of V _{CC} Minimum No Connection V _{IL} of 30% of V _{CC} Maximum	Enables Output Enables Output Disables Output: High Impedance
Enable Low Tri-State Input Voltage	V _{IH} of 70% of V _{CC} Minimum No Connection V _{IL} of 30% of V _{CC} Maximum	Disables Output: High Impedance Enables Output Enables Output
Output Disable Current	25mA Maximum	
Start Up Time	10 mSeconds Maximum	
RMS Phase Jitter	< 44.736MHz; F _J = 12kHz to 20MHz ≥ 44.736MHz, < 77.760MHz; F _J = 12kHz to 20MHz ≥ 77.760MHz; F _J = 12kHz to 20MHz	5 pSec Maximum 2 pSec Maximum 1 pSec Maximum
Phase Noise (at 155.520MHz)	at 10Hz Offset at 100Hz Offset at 1kHz Offset at 10kHz Offset at 100kHz Offset	-75dBc/Hz Typical -95dBc/Hz Typical -125dBc/Hz Typical -140dBc/Hz Typical -145dBc/Hz Typical

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES E13C9	PACKAGE CERAMIC	VOLTAGE 3.3V	CLASS OS1T	REV. DATE 06/04
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PART NUMBERING GUIDE

E13C9 E 2 F - 155.520M TR

FREQUENCY TOLERANCE & STABILITY/ OPERATING TEMPERATURE RANGE

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
 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

DUTY CYCLE

1=50% ±10%, 2=50% ±5%

AVAILABLE OPTIONS

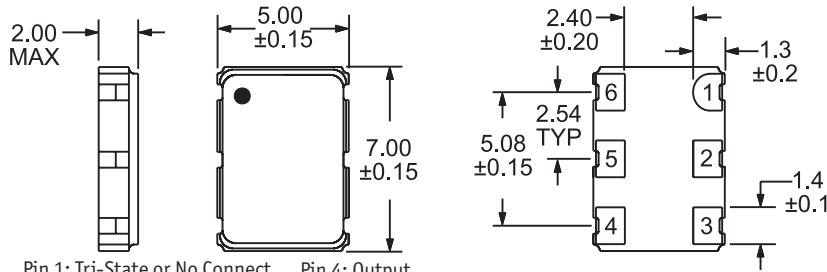
Blank=Tubes
 TR=Tape and Reel (Standard)

FREQUENCY

LOGIC CONTROL/ADDITIONAL OUTPUT

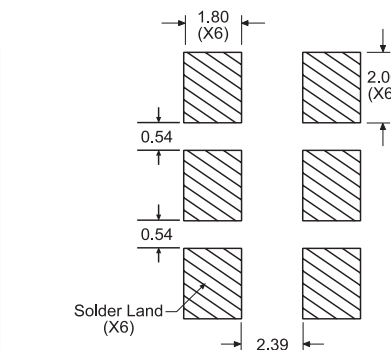
C=No Connect and Complementary Output
 F=Tri-State (Enable High) on Pad 1 and Complementary Output
 H=Tri-State (Enable High) on Pad 2 and Complementary Output
 J=Tri-State (Enable Low) on Pad 1 and Complementary Output
 K=Tri-State (Enable Low) on Pad 2 and Complementary Output

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS

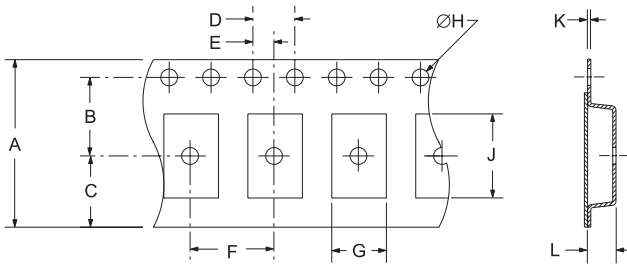


Pin 1: Tri-State or No Connect Pin 4: Output
 Pin 2: Tri-State or No Connect Pin 5: Complementary Output
 Pin 3: Case Ground Pin 6: Supply Voltage

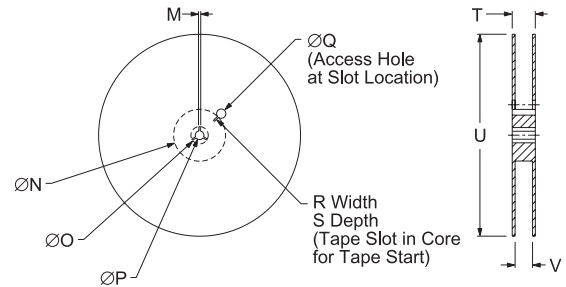
SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E	
	16±.3-1	7.5±.1	6.75±.1	4 ±.1	2±.1	
	F	G	H	J	K	L
	8±.1	B0*	1.5 +.1-0	A0*	.3±.05	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	22.4 MAX	360 MAX	16.4±2-0	1,000

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215

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	E13C9	CERAMIC	3.3V	OS1T	06/04