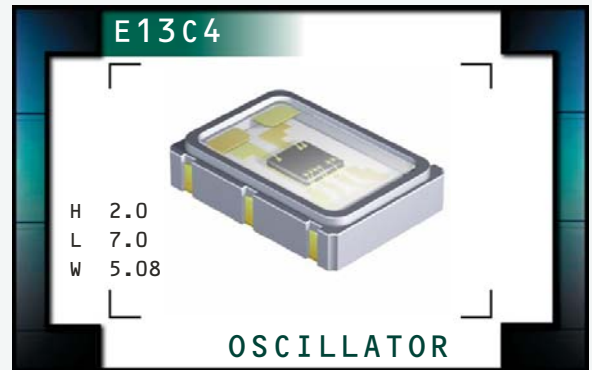


E13C4 Series



ECLIPTEK[®]
CORPORATION

- RoHS Compliant (Pb-Free)
- LVPECL Output Oscillators
- 3.3V Supply Voltage
- AT-Cut Third Overtone Crystal
- Ceramic 6-Pad SMD Package
- Stability to 25ppm
- Tri-State Output
- Complementary Output



NOTES

ELECTRICAL SPECIFICATIONS

Nominal Frequency	100MHz, 106.250MHz, 125MHz, 133.333MHz, 155.52MHz, 156.25MHz, 161.1328MHz or 166MHz	
Operating Temperature Range	0°C to 70°C, -5°C to 85°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 Operating Temperature Range, Supply Volt, Load, and 1st year Aging at 25°C	±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 nSeconds Maximum
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	Complementary Output and Tri-State	
Tri-State Input Voltage	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
Standby Current	Without Load	10µA Maximum
Start Up Time	10 mSeconds Maximum	
RMS Phase Jitter	FJ = 12kHz to 20MHz	0.24 pSec Typical, 1 pSec Maximum
RMS Period Jitter	3 pSec Typical, 5 pSec Maximum	

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
E13C4

PACKAGE
CERAMIC

VOLTAGE
3.3V

CLASS
OS1A

REV. DATE
04/03

PART NUMBERING GUIDE

E13C4 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
 L=±100ppm Maximum over -5°C to +85°C
 M=±50ppm Maximum over -5°C to +85°C
 N=±25ppm Maximum over -5°C to +85°C

AVAILABLE OPTIONS

Blank= Tubes
 TR= Tape and Reel (Standard)

FREQUENCY

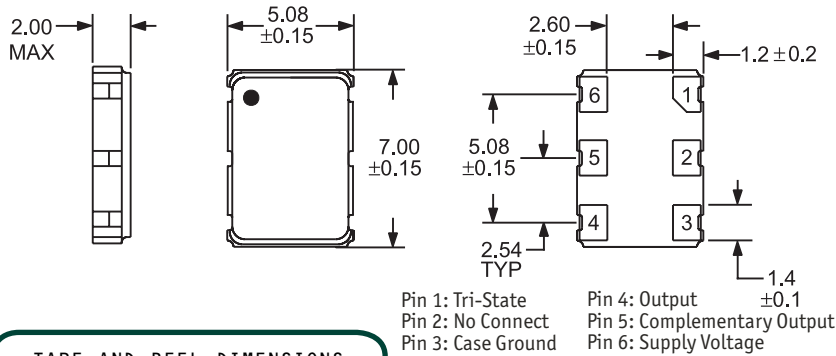
LOGIC CONTROL/ADDITIONAL OUTPUT

F= Complementary Output and Tri-State

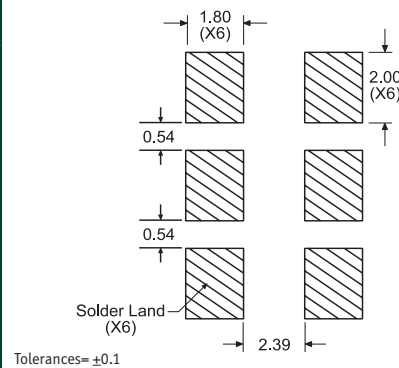
DUTY CYCLE

1=50%±10%, 2=50%±5%

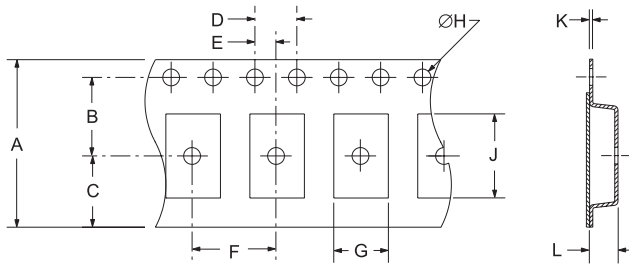
MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



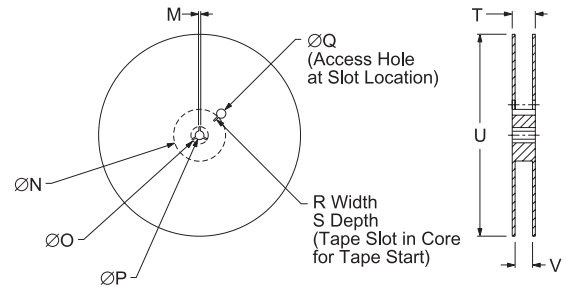
SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS



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	E13C4	CERAMIC	3.3V	OS1A	04/03