

EB13C5 Series



ECLIPTEK[®]
CORPORATION
www.DataSheet4U.com

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



ELECTRICAL SPECIFICATIONS

Frequency Range		6.144MHz to 44.736MHz
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} $\pm 10\%$
Input Current	6.144MHz to 10.000MHz	2mA Maximum
	10.001MHz to 25.000MHz	3mA Maximum
	25.001MHz to 40.000MHz	5mA Maximum
	40.001MHz to 44.736MHz	12mA 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 ± 100 ppm, ± 50 ppm, ± 25 ppm or ± 20 ppm Max.
Output Voltage Logic High (V_{OH})	≤ 40.000 MHz	90% of V _{DD} Min. (-1.6mA)
	> 40.000 MHz	(-8mA)
Output Voltage Logic Low (V_{OL})	≤ 40.000 MHz	10% of V _{DD} Max. (+1.6mA)
	> 40.000 MHz	(+8mA)
Rise / Fall Time	≤ 25.000 MHz 20% to 80% of Waveform	6 nSeconds Maximum
	> 25.000 MHz 20% to 80% of Waveform	4 nSeconds Maximum
Duty Cycle	at 50% of Waveform	50 ± 10 (%) (Standard)
	at 50% of Waveform	50 ± 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
Standby Current		Disabled Output: High Impedance 10 μ A Maximum
Start Up Time		10 mSeconds Maximum
Period Jitter: One Sigma		25pSeconds Maximum

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EB13C5	PACKAGE CERAMIC	VOLTAGE 3.3V	CLASS OS1K	REV. DATE 03/03
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PART NUMBERING GUIDE

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EB13C5 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

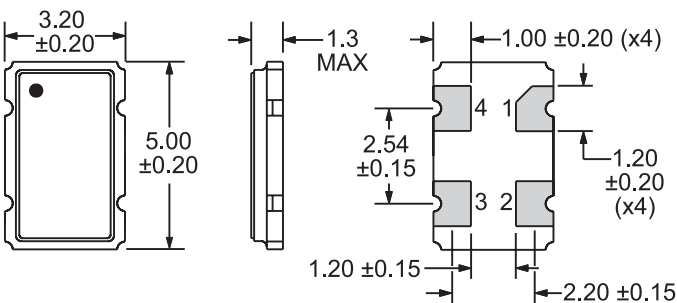
OUTPUT CONTROL FUNCTION

H=Tri-State

DUTY CYCLE

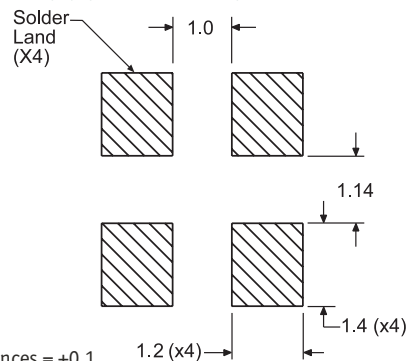
- 1=50 ±10(%)
- 2=50 ±5(%)

MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS

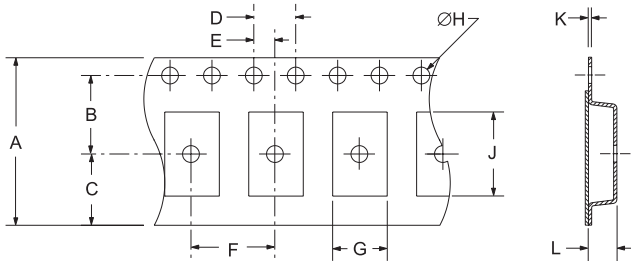


Pin 1: Tri-State
Pin 2: Case Ground
Pin 3: Output
Pin 4: Supply Voltage

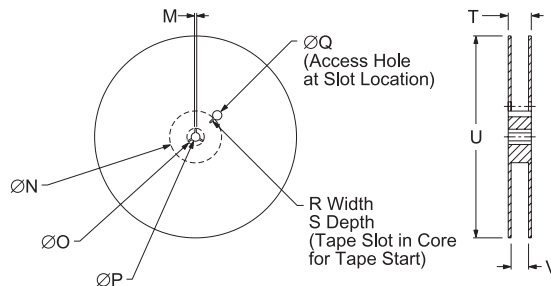
SUGGESTED SOLDER PAD LAYOUT
ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
	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



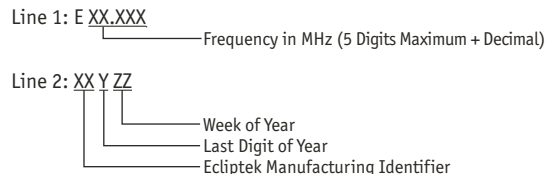
REEL	M	N	O	P	Q
	1.5 MIN	50 MIN	20.2 MIN	13.0±0.2	40 MIN
R	S	T	U	V	QTY/REEL
	2.5 MIN	10 MIN	18.4 MAX	180 MAX	12.4+2-0

*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



MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB13C5	CERAMIC	3.3V	OS1K	03/03