

EC26 Series



ECLIPTEK[®]
CORPORATION

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



ELECTRICAL SPECIFICATIONS

Frequency Range	1.544MHz to 125MHz, 125.00093MHz, 125.00312MHz, 125.009MHz, 125.00937MHz, 125.01MHz, 126MHz, 127MHz, 128MHz, 130MHz, 131.072MHz, 131.25MHz, 132MHz, 133MHz, 133.33MHz, 133.333MHz, 133.3333MHz, 135MHz, 136MHz, 137.472MHz, 140MHz, 142MHz, 142.85MHz, 143MHz, 145MHz, 148.351MHz, 148.3516MHz, 148.5MHz, 150MHz, 155MHz, 155.52MHz, 156.25MHz, 159.375MHz, 159.38MHz, 161.1328MHz, 162.5MHz, 166MHz, 175MHz, 187.5MHz, and 200MHz	
Operating Temperature Range		-10°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	1.544MHz to 32.000MHz 32.000001MHz to 50.000MHz 50.000001MHz to 70.000MHz 70.000001MHz to 125.000MHz 125.009MHz to 200.000MHz	10mA Maximum 18mA Maximum 20mA Maximum 40mA Maximum 60mA 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 Maximum ± 50 ppm Maximum ± 25 ppm Maximum ± 20 ppm Maximum
Output Voltage Logic High (V_{OH})	I _{OH} = -8mA	90% of V _{DD} Minimum
Output Voltage Logic Low (V_{OL})	I _{OL} = +8mA	10% of V _{DD} Maximum
Rise / Fall Time	Measured at 20% to 80% of Waveform ≤ 35.000 MHz (30pF Load) ≤ 35.000 MHz (15pF Load) 35.001MHz to 165.000MHz > 165.000MHz	7nSeconds Maximum 5nSeconds Maximum 3nSeconds Maximum 2nSeconds Maximum
Duty Cycle	at 50% of Waveform	50 ± 10 (%) (Standard) 50 ± 5 (%) (Optional)
Load Drive Capability	≤ 35.000 MHz > 35.000MHz	30pF Maximum 15pF Maximum
Tri-State Input Voltage	No Connection V _{IH} : $\geq 70\%$ of V _{DD} V _{IL} : $\leq 30\%$ of V _{DD}	Enables Output Enables Output Disables Output: High Impedance
Standby Current	Disabled Output: High Impedance	10 μ A Maximum
Start Up Time		10 mSeconds Maximum
RMS Phase Jitter	12kHz to 20MHz offset frequency	1pSeconds Maximum

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EC26

PACKAGE
CERAMIC

VOLTAGE
3.3V

CLASS
OS30

REV. DATE
03/09

PART NUMBERING GUIDE

EC26 00 ET TTS - 40.000M TR

FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum (Standard)
 45=±50ppm Maximum
 25=±25ppm Maximum
 20=±20ppm Maximum

OPERATING TEMPERATURE RANGE

Blank=-10°C to 70°C (Standard)
 ET=-40°C to 85°C

PACKAGING OPTIONS

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

FREQUENCY

OUTPUT CONTROL FUNCTION

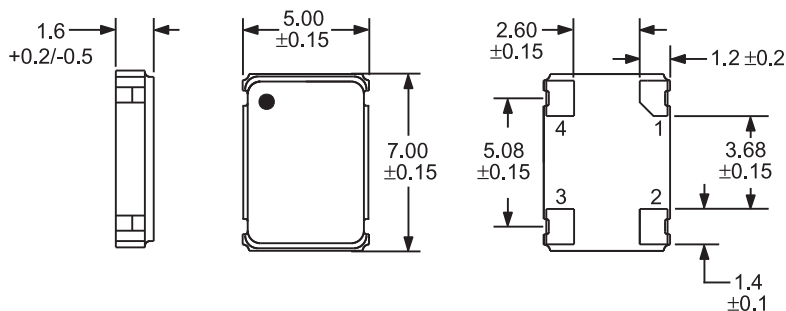
TS=Tri-State

DUTY CYCLE

Blank=50±10% (Standard), T=50±5%

MECHANICAL DIMENSIONS

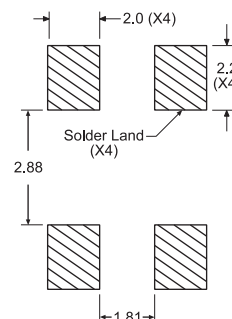
ALL DIMENSIONS IN MILLIMETERS



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

SUGGESTED SOLDER PAD LAYOUT

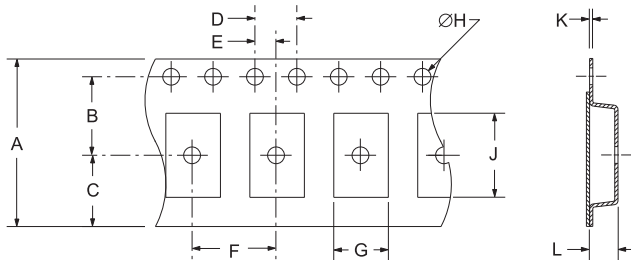
ALL DIMENSIONS IN MILLIMETERS



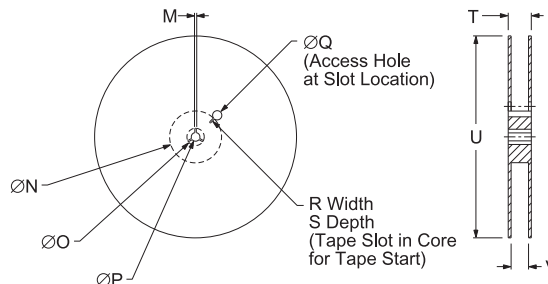
Tolerances = ±0.1

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

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: 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

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OSCILLATOR

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