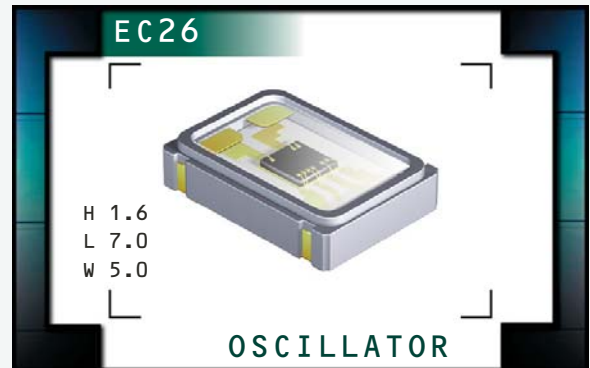


# EC26 Series



ECLIPTEK<sup>®</sup>  
CORPORATION

- Crystal Clock Oscillators
- LVCMOS Output
- +3.3V Supply Voltage
- Tri-State Output Function
- 4 Pad Ceramic SMD Package
- Low Stand-by Current
- RoHS Compliant (Pb-Free)



## ELECTRICAL SPECIFICATIONS

<b>Frequency Range</b>	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	
<b>Operating Temperature Range</b>		-10°C to +70°C -40°C to +85°C
<b>Storage Temperature Range</b>		-55°C to +125°C
<b>Supply Voltage (V<sub>DD</sub>)</b>		3.3V <sub>DC</sub> ±10%
<b>Input Current</b>	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
<b>Frequency Tolerance / Stability</b>	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 Maximum ±50ppm Maximum ±25ppm Maximum ±20ppm Maximum
<b>Output Voltage Logic High (V<sub>OH</sub>)</b>	I <sub>OH</sub> = -8mA	90% of V <sub>DD</sub> Minimum
<b>Output Voltage Logic Low (V<sub>OL</sub>)</b>	I <sub>OL</sub> = +8mA	10% of V <sub>DD</sub> Maximum
<b>Rise / Fall Time</b>	Measured at 20% to 80% of Waveform ≤ 35.000MHz (30pF Load) ≤ 35.000MHz (15pF Load) 35.001MHz to 165.000MHz > 165.000MHz	7nSeconds Maximum 5nSeconds Maximum 3nSeconds Maximum 2nSeconds Maximum
<b>Duty Cycle</b>	at 50% of Waveform	50 ±10(%) (Standard) 50 ±5(%) (Optional)
<b>Load Drive Capability</b>	≤ 35.000MHz > 35.000MHz	30pF Maximum 15pF Maximum
<b>Tri-State Input Voltage</b>	No Connection V <sub>IH</sub> : ≥70% of V <sub>DD</sub> V <sub>IL</sub> : ≤30% of V <sub>DD</sub>	Enables Output Enables Output Disables Output: High Impedance
<b>Standby Current</b>	Disabled Output: High Impedance	10µA Maximum
<b>Start Up Time</b>		10 mSeconds Maximum
<b>RMS Phase Jitter</b>	12kHz to 20MHz offset frequency	1pSeconds Maximum

MANUFACTURER  
ECLIPTEK CORP.

CATEGORY  
OSCILLATOR

SERIES  
EC26

PACKAGE  
CERAMIC

VOLTAGE  
3.3V

CLASS  
OS30

REV. DATE  
02/10

## PART NUMBERING GUIDE

### EC26 00 ET TS - 40.000M TR

#### FREQUENCY TOLERANCE / STABILITY

00=±100ppm Maximum  
 45=±50ppm Maximum  
 25=±25ppm Maximum  
 20=±20ppm Maximum

#### OPERATING TEMPERATURE RANGE

Blank = -10°C to +70°C  
 ET = -40°C to +85°C

#### PACKAGING OPTIONS

Blank = Bulk  
 TR = Tape & Reel

#### FREQUENCY

#### OUTPUT CONTROL FUNCTION

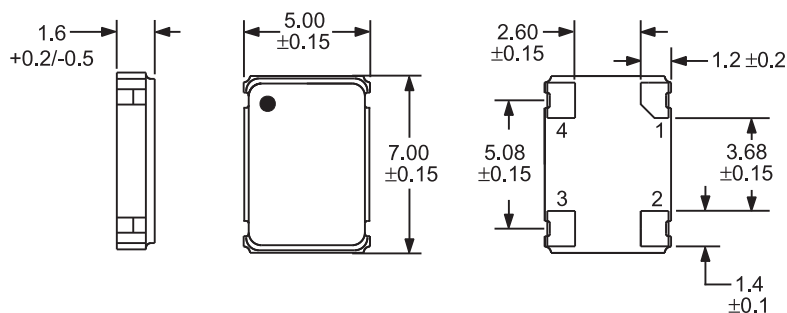
TS = Tri-State

#### DUTY CYCLE

Blank = 50±10(%)  
 T = 50±5(%)

#### MECHANICAL DIMENSIONS

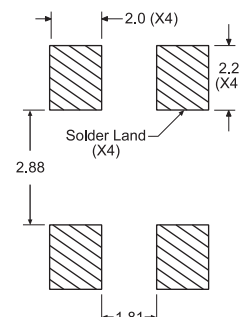
ALL DIMENSIONS IN MILLIMETERS



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

#### SUGGESTED SOLDER PAD LAYOUT

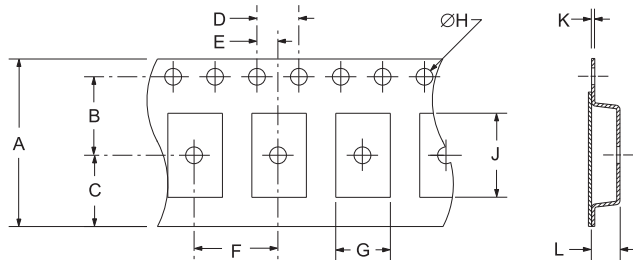
ALL DIMENSIONS IN MILLIMETERS



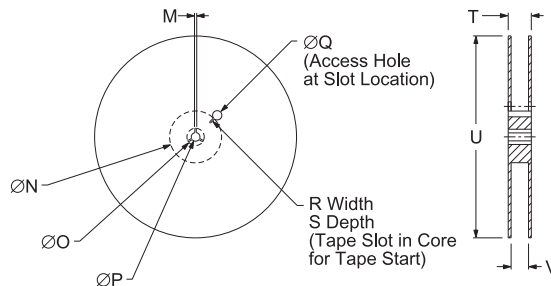
Tolerances = ±0.1

#### 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	Specification
ESD Susceptibility	MIL-STD-883, Method 3015, Class 1, HBM: 1500V
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Flammability	UL94-V0
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Moisture Resistance	MIL-STD-883, Method 1004
Moisture Sensitivity	J-STD-020, MSL 1
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003
Temperature Cycling	MIL-STD-883, Method 1010, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A

#### 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	EC26	CERAMIC	3.3V	OS30	02/10