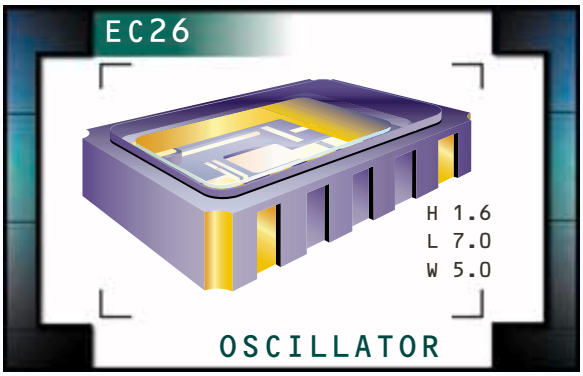
EC26 Series

- Ceramic SMD package
- 3.3V supply voltage
- HCMOS/TTL output
- Stability to 20ppm
- Available in tube or tape and reel



ELECTRICAL SPECIFICATIONS

Frequency Range*		1.544MHz to 125.000MHz
Operating Temperature Range	±100ppm, ±50ppm or ±25ppm	-10°C to 70°C or -40°C to 85°C
	±20ppm	-10°C to 70°C
Storage Temperature Range		-55°C to 125°C
Supply Voltage (V_{DD})		3.3V_{DC} ±10%
Input Current	1.544MHz to 36.000MHz	10mA Maximum
	36.001MHz to 50.000MHz	18mA Maximum
	50.001MHz to 70.000MHz	20mA Maximum
	70.001MHz to 125.000MHz	40mA Maximum
Frequency Tolerance / Stability*	Inclusive of Operating Temperature Range, Supply Voltage, and Load	±100ppm or ±50ppm, ±25ppm or ±20ppm Max.
Output Voltage Logic High (V_{OH})	w/HCMOS or TTL Load	90% of V_{DD} Min. I_{OH}= -8mA
Output Voltage Logic Low (V_{OL})	w/HCMOS or TTL Load	10% of V_{DD} Max. I_{OL}= +8mA
Rise / Fall Time	10% to 90% of Waveform w/HCMOS Load; 0.4V_{DC} to 2.4V_{DC} w/TTL Load	5 nSeconds Maximum
Duty Cycle	at 1.4V_{DC} w/TTL Load; at 50% of Waveform w/HCMOS Load	50 ±10(%) (Standard)
	at 50% of waveform w/TTL Load or w/HCMOS Load	50 ±5(%) (Optional)
Load Drive Capability	≤70.000MHz	10LSTTL Load or 15pF HCMOS Load
	>70.000MHz	15pF HCMOS Load
Pin 1 Tri-State Input Voltage	No Connection	Enables Output
	V_{IH}:≥70% of V_{DD}	Enables Output
	V_{IL}:≤30% of V_{DD}	Disables Output: High Impedance
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10 mSeconds Maximum
Period Jitter: Absolute		±100pSeconds Maximum
Period Jitter: One Sigma		±25pSeconds Maximum

***Note:** Not all Frequency Tolerance/Stability options available, see the Ecliptek website for the "Qualified Frequency List".

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC26	CERAMIC	3.3V	OS30	06/00

PART NUMBERING GUIDE

EC26 00 ET T TS - 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

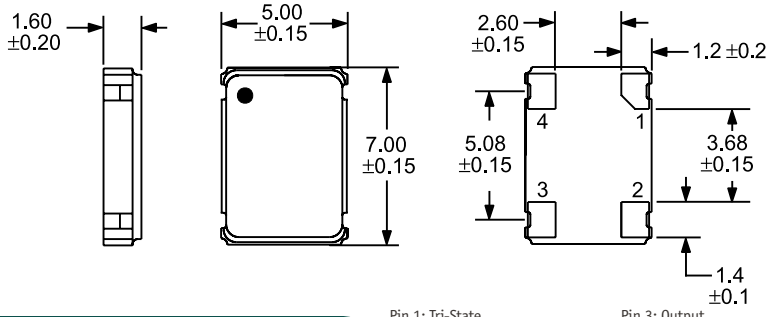
PACKAGING OPTIONS
Blank=Bulk, TR=Tape and Reel (Standard)

FREQUENCY

PIN 1 CONNECTION
TS=Tri-State

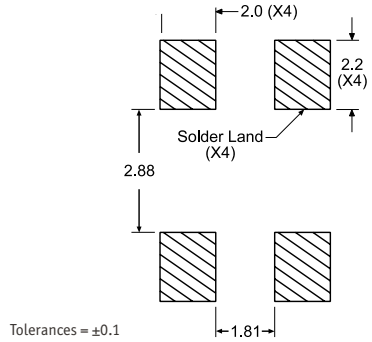
DUTY CYCLE
Blank=50 ±10(%) (Standard), T=50 ±5(%)

MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



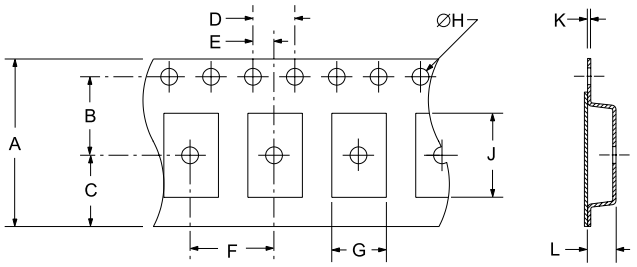
Pin 1: Tri-State
Pin 2: Case Ground
Pin 3: Output
Pin 4: Supply Voltage

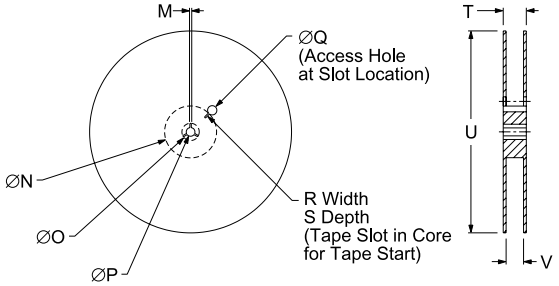
SUGGESTED SOLDER PAD LAYOUT
ALL DIMENSIONS IN MILLIMETERS



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	Specification
Seal Integrity	Bubble test in Perfluorocarbon at +125°C ±5°C for 60 seconds minimum.
Solderability	Sn63 Solder dip at +230°C ±5°C for 5 seconds/95% coverage.
Marking Permanency	10 Strokes with brush after 1 minute soak in solvent, 3 times.
Shock	Random drop on hard wooden plate 3 times from a height of 50cm.
Thermal Shock	300 Cycles from -55°C to +125°C, 5 minute dwell.

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	06/00