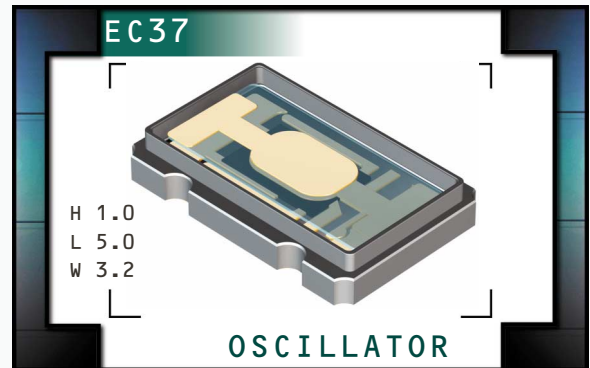


EC37 Series

- HCMOS output
- 2.5V Supply Voltage
- Ceramic 4-pad SMD package
- Stability to 50ppm
- Available on Tape and Reel



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range (F_0)		1.544MHz to 40.000MHz
Operating Temperature Range (OTR)	± 100 ppm or ± 50 ppm	0°C to 70°C or -40°C to 85°C
Storage Temperature Range (STR)		-55°C to 125°C
Supply Voltage (V_{DD})		2.5V _{DC} $\pm 10\%$
Input Current (I_{DD})	≤ 24.000 MHz > 24.000 MHz	10mA Maximum 20mA Maximum
Frequency Tolerance/Stability	Inclusive of Operating Temperature Range, Supply Voltage, and Load	± 100 ppm or ± 50 ppm
Output Voltage Logic High (V_{OH})		90% of V_{DD} Minimum $I_{OH} = -4$ mA
Output Voltage Logic Low (V_{OL})		10% of V_{DD} Maximum $I_{OL} = +4$ mA
Rise Time / Fall Time (T_R/T_F)	≤ 24.000 MHz 10% to 90% of Waveform > 24.000 MHz 10% to 90% of Waveform	6 nSeconds Maximum 4 nSeconds Maximum
Duty Cycle (SYM)	at 50% of Waveform	50 ± 10 (%) (Standard) or 50 ± 5 (%) (Optional)
Load Drive Capability (C_{LOAD})		15pF HCMOS Load Maximum
Pin 1 Tri-State Input Voltage	No Connection $V_{IH}: \geq 90\%$ of V_{DD} $V_{IL}: \leq 10\%$ of V_{DD}	Enables Output Enables Output Disables Output: High Impedance
Aging (at 25°C)		± 5 ppm /year Maximum
Start Up Time (T_S)		10 mSeconds Maximum
Period Jitter: Absolute		± 100 pSeconds Maximum
Period Jitter: One Sigma		± 25 pSeconds Maximum

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC37	CERAMIC	2.5V	OS92	11/01

PART NUMBERING GUIDE

EC37 00 ET TTS - 30.000M TR

FREQUENCY TOLERANCE / STABILITY

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

OPERATING TEMPERATURE RANGE

Blank=0°C to 70°C (Standard)
ET=-40°C to 85°C

PACKAGING OPTIONS

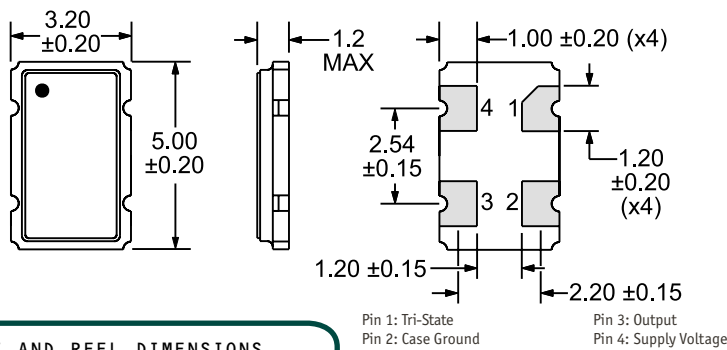
Blank=Bulk (Standard)
TR=Tape and Reel

FREQUENCY

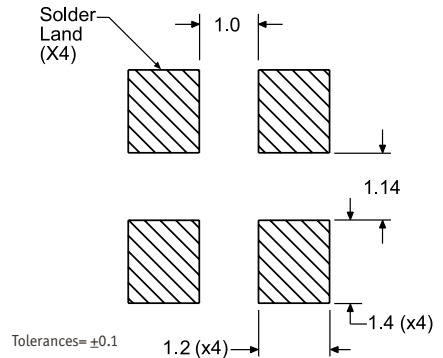
DUTY CYCLE

Blank=50 ±10(%) (Standard)
T=50 ±5(%)

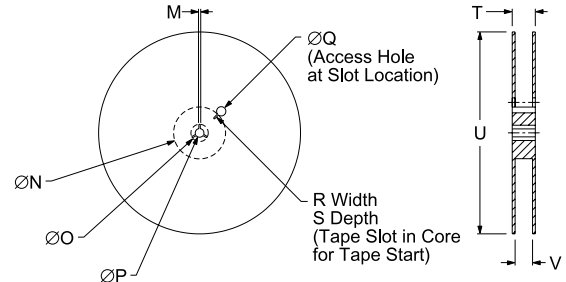
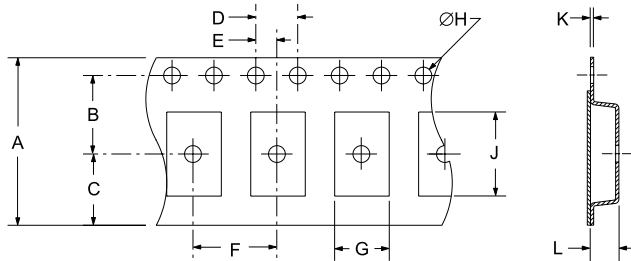
MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E	
	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	K0*

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	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: E XX.XXX
Frequency in MHz (5 Digits Maximum + Decimal)

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC37	CERAMIC	2.5V	0S92	11/01