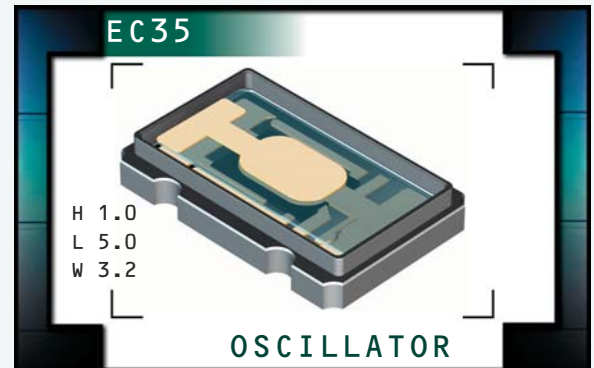


EC35 Series

- HCMOS output
- 5.0V Supply Voltage
- Ceramic 4-pad SMD package
- Stability to 50ppm
- Available on Tape and Reel



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range (F_0)		2.500MHz to 70.000MHz
Operating Temperature Range (OTR)	$\pm 100\text{ppm}$ or $\pm 50\text{ppm}$	0°C to 70°C or -40°C to 85°C
Storage Temperature Range (STR)		-55°C to 125°C
Supply Voltage (V_{DD})		$5.0V_{DC} \pm 10\%$
Input Current (I_{DD})	$\leq 20.000\text{MHz}$ $> 20.000\text{MHz}$ to 40.000MHz $> 40.000\text{MHz}$	30mA Maximum 50mA Maximum 80mA Maximum
Frequency Tolerance/Stability	Inclusive of Operating Temperature Range, Supply Voltage, and Load	$\pm 100\text{ppm}$ or $\pm 50\text{ppm}$
Output Voltage Logic High (V_{OH})	w/ TTL Load w/ HCMOS Load	$2.4V_{DC}$ Minimum $V_{DD} - 0.5V_{DC}$ Minimum
Output Voltage Logic Low (V_{OL})	w/ TTL Load w/ HCMOS Load	$0.4V_{DC}$ Maximum $0.5V_{DC}$ Maximum
Rise Time / Fall Time (T_R/T_F)	20% to 80% of Waveform	7 nSeconds Maximum
Duty Cycle (SYM)	at 50% of Waveform	$50 \pm 10(\%)$ (Standard) or $50 \pm 5(\%)$ (Optional)
Load Drive Capability (C_{LOAD})		5TTL Load or 50pF HCMOS Load
Tri-State Input Voltage	No Connection $V_{IH} \geq 2.7V_{DC}$ $V_{IL} \leq 0.8V_{DC}$	Enables Output Enables Output Disables Output: High Impedance
Standby Current	$< 40.000\text{MHz}$ $\geq 40.000\text{MHz}$	10 μA Maximum (Disabled Output: High Impedance) 25mA Maximum (Disabled Output: High Impedance)
Aging (at 25°C)		$\pm 5\text{ppm}$ 1st year Maximum
Start Up Time (T_s)		10 mSeconds Maximum
Period Jitter: Absolute		$\pm 100\text{pSeconds}$ Maximum
Period Jitter: One Sigma		$\pm 25\text{pSeconds}$ Maximum

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EC35	PACKAGE CERAMIC	VOLTAGE 5.0V	CLASS OS90	REV. DATE 06/02
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PART NUMBERING GUIDE

EC35 00 ET TSY - 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

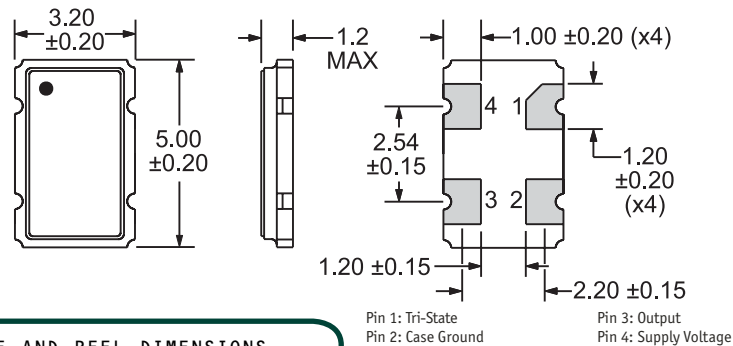
FREQUENCY

DUTY CYCLE

Blank=50 ±10(%) (Standard)
T=50 ±5(%)

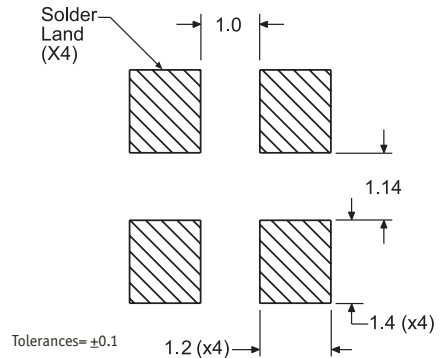
MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



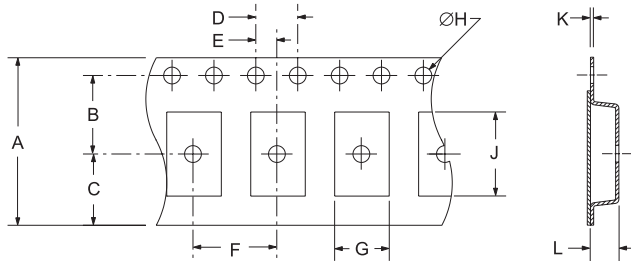
SUGGESTED SOLDER PAD LAYOUT

ALL DIMENSIONS IN MILLIMETERS

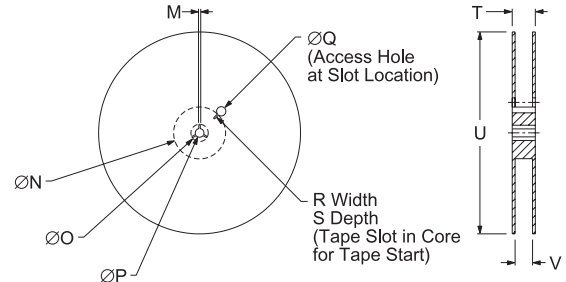


TAPE AND REEL DIMENSIONS

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	EC35	CERAMIC	5.0V	0590	06/02