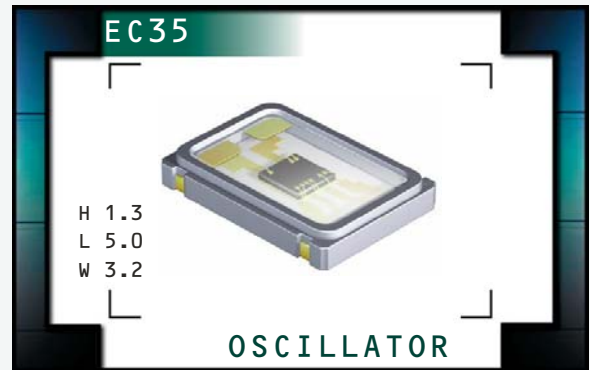


EC35 Series



ECLIPTEK[®]
CORPORATION

- RoHS Compliant (Pb-Free)
- HCMOS/TTL output
- 5.0V Supply Voltage
- Ceramic SMD package
- Stability to ± 20 ppm
- Standby Function



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range (F_0)		1.544MHz to 100.000MHz
Operating Temperature Range (OTR)		-10°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}) (No Load)	1.544MHz to 35.000MHz	20mA Maximum
	35.001MHz to 70.000MHz	40mA Maximum
	70.001MHz to 100.000MHz	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, ± 50 ppm, ± 25 ppm, or ± 20 ppm Maximum
Output Voltage Logic High (V_{OH})	w/ TTL Load	2.4V _{DC} Minimum ($I_{OH} = -16$ mA)
	w/ HCMOS Load	$V_{DD} - 0.5V_{DC}$ Minimum ($I_{OH} = -16$ mA)
Output Voltage Logic Low (V_{OL})	w/ TTL Load	0.4V _{DC} Maximum ($I_{OL} = +16$ mA)
	w/ HCMOS Load	0.5V _{DC} Maximum ($I_{OL} = +16$ mA)
Rise Time / Fall Time (T_R/T_F)	≤ 35.000 MHz 20% to 80% of Waveform	6 nSeconds Maximum
	> 35.000 MHz 20% to 80% of Waveform	4 nSeconds Maximum
Duty Cycle (SYM)	at 50% of Waveform	50 ± 10 (%) (Standard) 50 ± 5 (%) (Optional)
Load Drive Capability (C_{LOAD})	1.544MHz to 35.000MHz	10TTL Load or 50pF HCMOS Load
	35.001MHz to 70.000MHz	50pF HCMOS Load
	70.001MHz to 100.000MHz	30pF HCMOS Load
Tri-State Input Voltage	No Connection	Enables Output
	$V_{IH} \geq 90\%$ of V_{DD}	Enables Output
	$V_{IL} \leq 10\%$ of V_{DD}	Disables Output: High Impedance
Standby Current	Disabled Output: High Impedance	10 μ A Maximum
Start Up Time (T_S)		10 mSeconds Maximum
RMS Phase Jitter	12kHz to 20MHz offset frequency	1pSeconds Maximum

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EC35	PACKAGE CERAMIC	VOLTAGE 5.0V	CLASS OS90	REV. DATE 01/06
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PART NUMBERING GUIDE

EC35 00 ET TSY - 30.000M TR

FREQUENCY TOLERANCE / STABILITY

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

PACKAGING OPTIONS

Blank=Bulk (Standard)
 TR=Tape and Reel

FREQUENCY

DUTY CYCLE

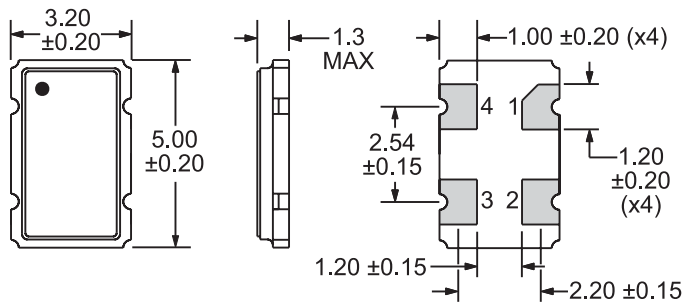
Blank=50 ±10(%) (Standard)
 T=50 ±5(%)

OPERATING TEMPERATURE RANGE

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

MECHANICAL DIMENSIONS

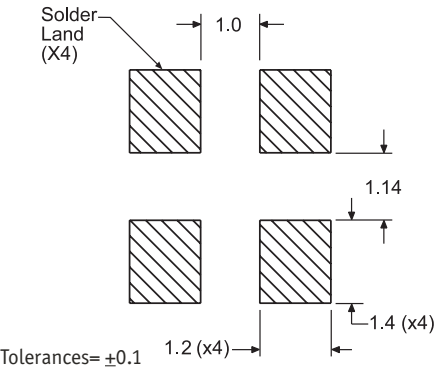
ALL DIMENSIONS IN MILLIMETERS



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

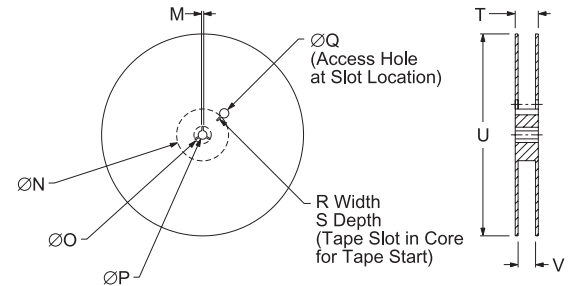
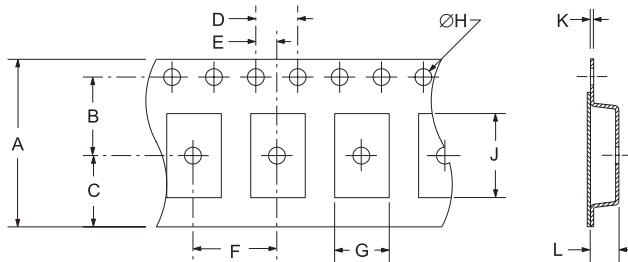
SUGGESTED SOLDER PAD LAYOUT

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*

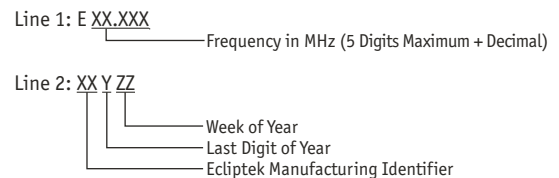
REEL	M	N	O	P	Q	
	1.5 MIN	50 MIN	20.2 MIN	13.0±0.2	40 MIN	
R	S	T	U	V	QTY/REEL	
	2.5 MIN	10 MIN	18.4 MAX	180 MAX	12.4+2-0	1,000

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215

MARKING SPECIFICATIONS



MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC35	CERAMIC	5.0V	OS90	01/06