



- RoHS Compliant (Pb-Free)
- LVHCMOS output
- 3.3V Supply Voltage
- Ceramic SMD package
- Stability to $\pm 20\text{ppm}$
- Standby Function
- Available on Tape and Reel



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range (F ₀)	1.544MHz to 100.000MHz	
Operating Temperature Range (OTR)	-10°C to 70°C -40°C to 85°C	
Storage Temperature Range (STR)	-55°C to 125°C	
Supply Voltage (V _{DD})	3.3V _{DC} $\pm 10\%$	
Input Current (I _{DD})	1.544MHz to 9.999MHz	8mA Maximum
	10.000MHz to 34.999MHz	10mA Maximum
	35.000MHz to 49.999MHz	25mA Maximum
	50.000MHz to 70.000MHz	35mA Maximum
	70.000001MHz to 100MHz	40mA 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	$\pm 100\text{ppm}$, $\pm 50\text{ppm}$, 25ppm, or $\pm 20\text{ppm}$ Maximum
	Aging at 25°C, Shock, and Vibration	
Output Voltage Logic High (V _{OH})	90% of V _{DD} Minimum (I _{OH} = -8mA)	
Output Voltage Logic Low (V _{OL})	10% of V _{DD} Maximum (I _{OL} = +8mA)	
Rise Time / Fall Time (T _R /T _F)	20% to 80% of Waveform from 1.544MHz to 35.000MHz	6 nSeconds Maximum
	20% to 80% of Waveform from 35.001MHz to 80.000MHz	4 nSeconds Maximum
	20% to 80% of Waveform from 80.001MHz to 100.000MHz	2 nSeconds Maximum
Duty Cycle (SYM)	at 50% of Waveform	50 $\pm 10\%$ (Standard)
	at 50% of Waveform	50 $\pm 5\%$ (Optional)
Load Drive Capability (C _{LOAD})	$\leq 35.000\text{MHz}$	30pF HCMOS Load Maximum
	$> 35.000\text{MHz}$	15pF HCMOS Load Maximum
Tri-State Input Voltage	No Connection	Enables Output
	V _{IH} : 90% of V _{DD} Minimum	Enables Output
	V _{IL} : 10% of V _{DD} Maximum	Disables Output: High Impedance
Standby Current	Disabled Output: High Impedance	10 μA Maximum
Start Up Time (T _S)	10 mSeconds Maximum	
RMS Phase Jitter	12kHz to 20MHz offset frequency	1pSeconds Maximum

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EC36	CERAMIC	3.3V	0591	01/06

查询"EC24"供应商

PART NUMBERING GUIDE

EC36 00 ETTS - 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

OPERATING TEMPERATURE RANGE

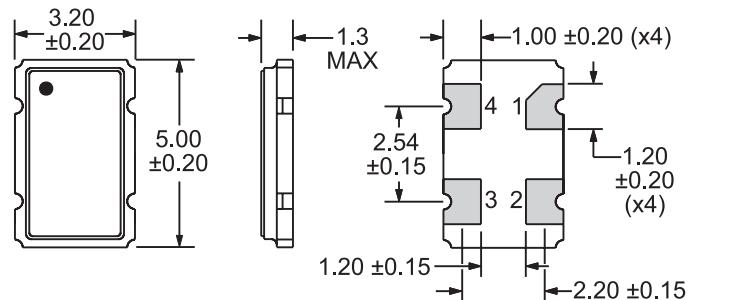
Blank=-10°C to 70°C (Standard)
ET=-40°C to 85°C

FREQUENCY

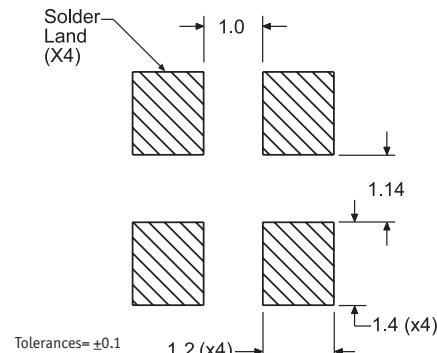
DUTY CYCLE

Blank=50±10% (Standard)
T=50±5%

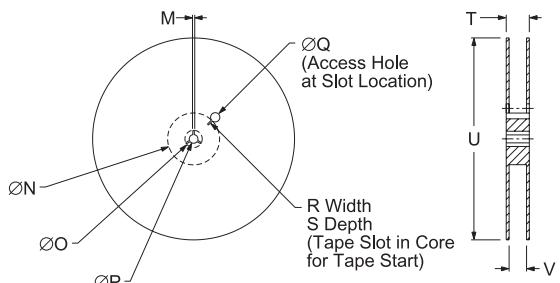
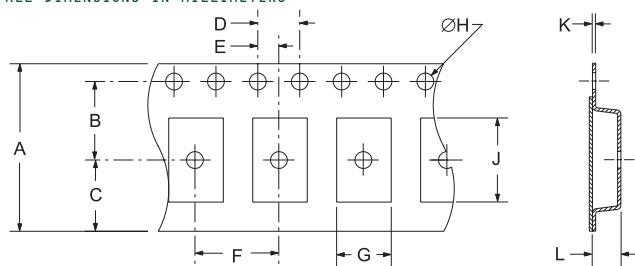
MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
F	12.0±0.2	5.5±0.1	6.5±0.1	4.0±0.1	2.0±0.1
G	8.0±0.1	B0*	1.5+0.1-0.0	A0*	0.30±0.05
H					K0*
J					
K					
L					

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

*Compliant to EIA 481A

ENVIRONMENTAL / MECHANICAL SPECIFICATIONS

Characteristic

Fine Leak Test
Gross Leak Test
Mechanical Shock
Vibration
Solderability
Temperature Cycling
Resistance to Soldering Heat
Resistance to Solvents

Specification

MIL-STD-883, Method 1014, Condition A
MIL-STD-883, Method 1014, Condition C
MIL-STD-202, Method 213, Condition C
MIL-STD-883, Method 2007, Condition A
MIL-STD-883, Method 2002
MIL-STD-883, Method 1010
MIL-STD-202, Method 210
MIL-STD-202, Method 215

MARKING SPECIFICATIONS

Line 1: E XX.XXX

Frequency in MHz (5 Digits Maximum + Decimal)

Line 2: XX Y ZZ

Week of Year

Last Digit of Year

Ecliptek Manufacturing Identifier

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

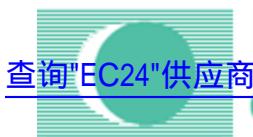
SERIES
EC36

PACKAGE
CERAMIC

VOLTAGE
3.3V

CLASS
OS91

REV. DATE
01/06

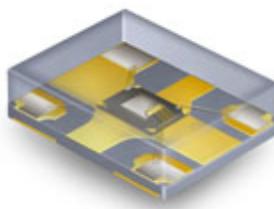


ECLIPTEK®
CORPORATION

Ecliptek
MEMS Oscillators

Ecliptek MEMS Oscillators
- *Lower Cost, Quicker Delivery Alternative!*

The EMO™ family of oscillators offers exceptional performance, shorter delivery and significant cost advantages by utilizing a revolutionary new MEMS resonator technology. This important innovation enables Ecliptek to offer the ultimate in flexibility with delivery of 2 days for samples and 5 to 10 days for quantities up to 10,000 pieces on tape and reel.



Supply Voltage (V _{DC})	Package Dimensions (all dimensions in millimeters)			
	5 x 7	3.2 x 5	2.5 x 3.2	2 x 2.5
1.8	EMK11	EMK21	EMK31	EMK41
2.5	EMK12	EMK22	EMK32	EMK42
3.3	EMK13	EMK23	EMK33	EMK43

Would you like to request EMO™ samples or a quotation now?

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Want to learn more about the Ecliptek EMO™ family of MEMS oscillators?

[Click Here](#)

Product Features:

- Improved frequency stability through the use of a MEMS resonator
- 1.8VDC, 2.5VDC, or 3.3VDC supply voltages
- Frequency range of 1MHz to 125MHz, HCMOS output
- Frequency stability to $\pm 50\text{ppm}$, -40°C to +85°C operation
- Tri-state or power down functions
- RoHS compliant
- High temperature +260°C reflow capability
- EIA compliant tape and reel packaging
- Four SMD package sizes

If you have any questions or would like additional information regarding the Ecliptek EMO™ family of oscillators, please contact our [Sales Department](#).