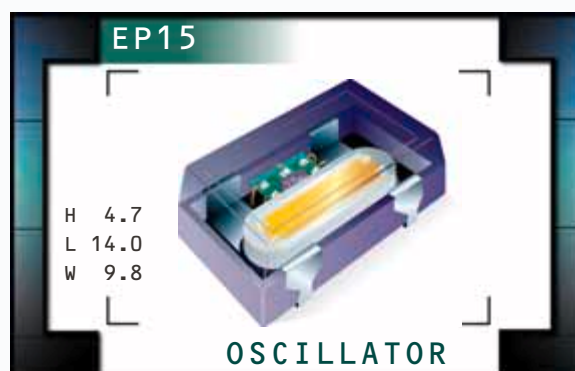


EP15 Series



- EPO™ Programmable Oscillator
- 3.3V supply voltage
- HCMOS/TTL output
- Plastic surface mount package
- Stability to 50ppm
- Available on tape and reel



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range		1.000MHz to 106.250MHz
Operating Temperature Range		-20°C to 70°C or -40°C to 85°C
Storage Temperature Range		-55°C to 125°C
Supply Voltage (V_{DD})		3.3V _{DC} ±0.3V _{DC}
Input Current		28mA Maximum (Unloaded)
Disable Current (TS Option)		16mA Maximum (Pin 1=Ground)
Standby Current (PD Option)		20µA Maximum (Pin 1=Ground)
Frequency Tolerance / Stability	Inclusive of Operating Temp Range, Supply Voltage, and Load	±100ppm or ±50ppm Maximum
Output Voltage Logic High (V_{OH})		$V_{DD} - 0.4V_{DC}$ Minimum $I_{OH} = -8mA$
Output Voltage Logic Low (V_{OL})		0.4V _{DC} Maximum $I_{OL} = +8mA$
Rise Time / Fall Time	20% to 80% of waveform	4 nSeconds Maximum
Duty Cycle	at 50% of waveform	50 ±10(%) (Standard)
	at 50% of waveform (≤50.000MHz Only)	50 ±5(%) (Optional)
Load Drive Capability	≤50.000MHz	30pF HCMOS Load Maximum
	>50.000MHz	15pF HCMOS Load Maximum
Pin 1 Connection	TS	Tri-State
	PD	Power Down
Pin 1 Input Voltage	V_{IH} : No Connection or ≥70% of V_{DD}	Enables Output
	V_{IL} : (TS Option) ≤20% of V_{DD}	Disable Output: High Impedance
	V_{IL} : (PD Option) ≤20% of V_{DD}	Disable Output: Logic Low
Aging (at 25°C)		±5ppm / year Maximum
Start Up Time		10 mSeconds Maximum
Period Jitter: Absolute	≤33.000MHz	±250pSec Max, ±100pSec Typical
	>33.000MHz	±125pSec Max, ±75pSec Typical
Period Jitter: One Sigma	≤33.000MHz	±50pSeconds Maximum
	>33.000MHz	±40pSeconds Maximum

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EP15

PACKAGE
PLASTIC

VOLTAGE
3.3V

CLASS
0549

REV. DATE
06/00

PART NUMBERING GUIDE

EP15 00 SJ ET TS - 24.000M TR

FREQUENCY TOLERANCE / STABILITY

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

OPERATING TEMP. RANGE

Blank=20°C to 70°C
ET=-40°C to 85°C

DUTY CYCLE

Blank=50 ±10(%) (Standard)
T=50 ±5(%)

PACKAGING OPTIONS

Blank=Bulk
TR=Tape and Reel (Standard)

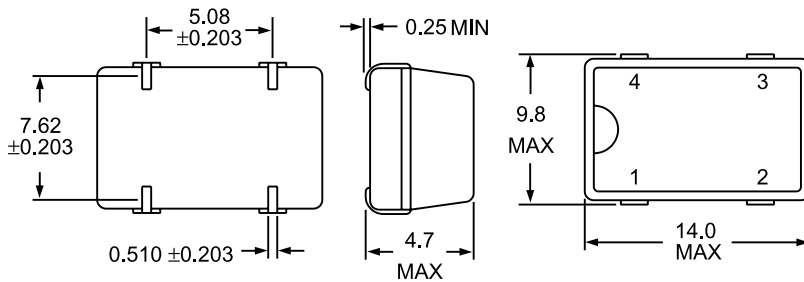
FREQUENCY

PIN 1 CONNECTION

TS=Tri-State
PD=Power Down

MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS

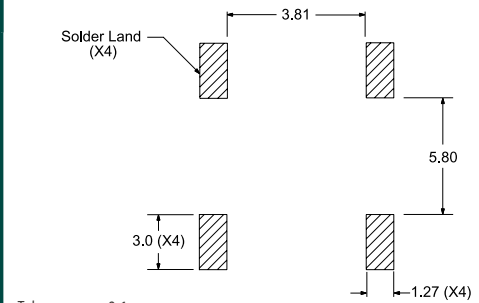


Pin 1: Tri-State or Power Down
Pin 2: Case Ground

Pin 3: Output
Pin 4: Supply Voltage

SUGGESTED SOLDER PAD LAYOUT

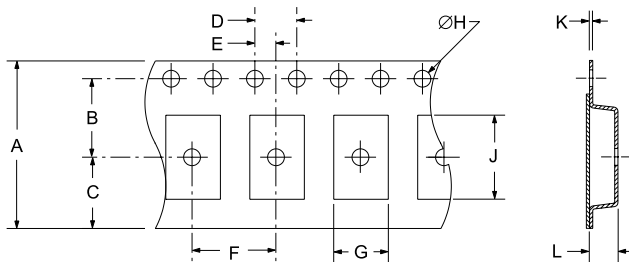
ALL DIMENSIONS IN MILLIMETERS



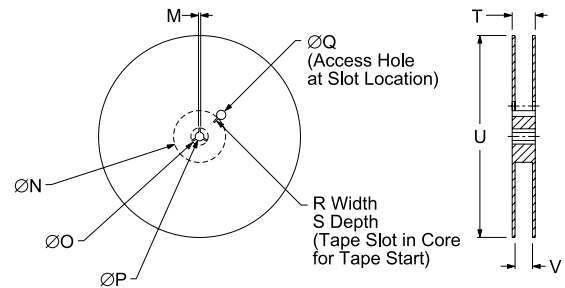
Tolerances = ±0.1

TAPE AND REEL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
	24 ±.3	11.5 ±.1	10.75 ±.1	4 ±.2	2 ±.1
F	G	H	J	K	L
12 ±.2	B0*	1.5 +.1-0	A0*	.3 ±.1	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	30.4 MAX	360 MAX	24.4+2-0	1000

*Compliant to EIA 481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic	Specification
Seal Integrity	Bubble test in Perfluorocarbon at +125°C ±5°C for 60 seconds minimum (internal crystal only).
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.
Vibration	Frequency with an amplitude of 1.5mm sweeping between 10Hz to 55Hz within 1 minute (approximately) for 2 hours minimum on each axis (X, Y and Z) for a total of 6 hours.

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

Eclipse Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EP15	PLASTIC	3.3V	OS49	06/00