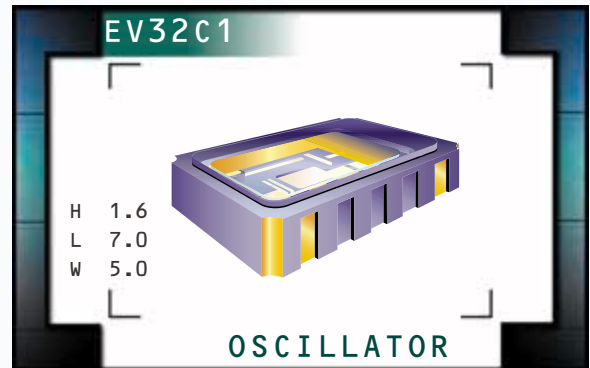


EV32C1 Series

- Voltage Controlled Crystal Oscillator (VCXO)
- 3.3V Supply Voltage
- HCMOS output
- Ceramic 4-pad SMD package
- Stability to 20ppm
- APR Performance to ± 100 ppm
- Commercial and Industrial Temperature Range



ELECTRICAL SPECIFICATIONS

Frequency Range (F_0)		16.384MHz to 35.328MHz
Operating Temperature Range (OTR)		0°C to 70°C or -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})		15mA Maximum
Frequency Tolerance/Stability	Inclusive of Operating Temperature Range, Supply Voltage, and Load with $V_C = 1.65V_{DC}$	± 50 ppm, ± 25 ppm, or ± 20 ppm (0°C to +70°C only)
Output Voltage Logic High (V_{OH})		90% of V_{DD} Minimum
Output Voltage Logic Low (V_{OL})		10% of V_{DD} Maximum
Rise Time / Fall Time (T_R/T_F)	20% to 80% of Waveform	5 nSeconds Maximum
Duty Cycle (SYM)	at 50% of Waveform	50 ± 10 (%) (Standard) 50 ± 5 (%) (Optional)
Load Drive Capability (C_{LOAD})		15pF HCMOS Load Maximum
Aging (at 25°C)		± 2 ppm/1st year Typical, ± 10 ppm/10 years Maximum
Start Up Time (T_S)		10 mSeconds Maximum
Absolute Pull Range (APR)	Inclusive of Operating Temp. Range, Supply Voltage, Load, and Aging over Control Voltage (V_C)	± 20 ppm Minimum ± 32 ppm Minimum ± 50 ppm Minimum ± 80 ppm Minimum ± 100 ppm Minimum
Linearity		20%, 15%, or 10% Maximum
Control Voltage (V_C): Test Conditions for APR		1.65V _{DC} $\pm 1.35V_{DC}$
Control Voltage Range (V_{CR})		0.0V _{DC} to V_{DD}
Transfer Function		Positive Transfer Characteristic
Input Impedance (Z_I)		50kOhms Typical
Modulation Bandwidth (MBW)	-3dB, $V_C = 1.65V_{DC}$	10kHz Minimum
Typical Phase Noise	At offset of 10Hz At offset of 100Hz At offset of 1kHz At offset of 10kHz At offset of 100kHz	-70dBc/Hz -100dBc/Hz -130dBc/Hz -147dBc/Hz -152dBc/Hz

MANUFACTURER ECLIPTEK CORP.	CATEGORY OSCILLATOR	SERIES EV32C1	PACKAGE CERAMIC	VOLTAGE 3.3V	CLASS OS56	REV. DATE 10/00
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PART NUMBERING GUIDE

EV32C1 D 2 A 1 - 35.328M TR

FREQUENCY TOLERANCE & STABILITY/ OPERATING TEMPERATURE RANGE

A=Not Specified/0°C to 70°C, B=Not Specified/-40°C to 85°C,
D=±50ppm Max./0°C to 70°C, E=±25ppm Max./0°C to 70°C,
F=±20ppm Max./0°C to 70°C, H=±50ppm Max./-40°C to 85°C,
J=±25ppm Max./-40°C to 85°C

ABSOLUTE PULL RANGE (APR)

1=±20ppm Minimum, 2=±32ppm Minimum,
3=±50ppm Minimum, 4=±80ppm Minimum,
5=±100ppm Minimum

AVAILABLE OPTIONS

Blank=Bulk (Standard)
TR=Tape and Reel

FREQUENCY

DUTY CYCLE

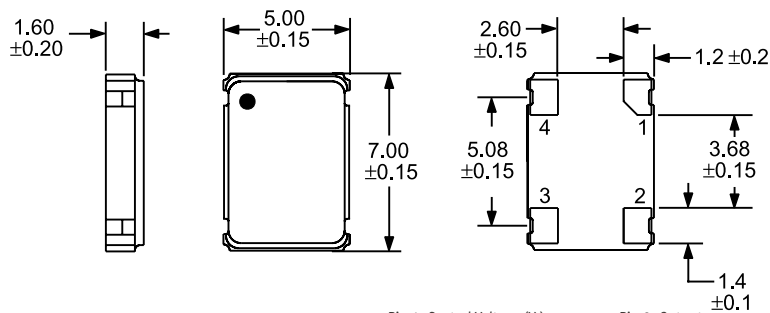
1=50 ±10(%), 2=50 ±5(%)

LINEARITY

A=20% Maximum,
B=15% Maximum,
C=10% Maximum

MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS

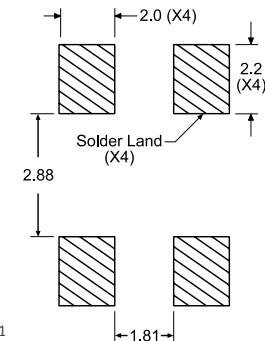


Pin 1: Control Voltage (V_c)
Pin 2: Case Ground

Pin 3: Output
Pin 4: Supply Voltage

SUGGESTED SOLDER PAD LAYOUT

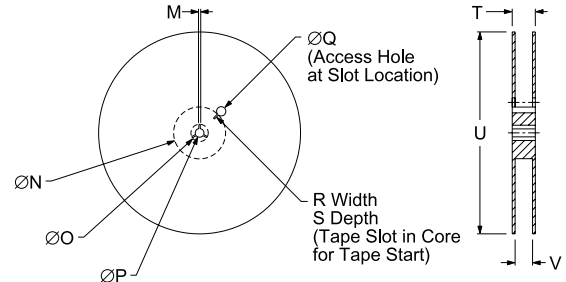
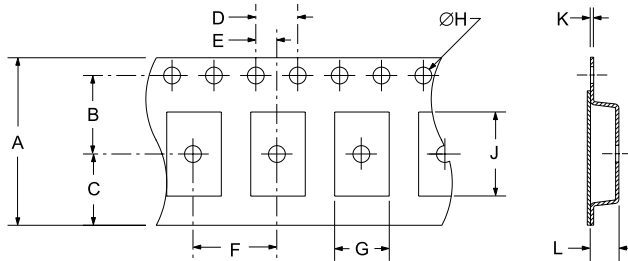
ALL DIMENSIONS IN MILLIMETERS



Tolerances= ±0.1

TAPE AND REEL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
	16±.3-.1	7.5±.1	6.75±.1	4 ±.1	2±.1
F	G	H	J	K	L
8±.1	B0*	1.5+1-.0	A0*	.3 ±.05	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	22.4 MAX	360 MAX	16.4+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: ECLIPTEK	
Line 2: XX.XXX M	Frequency in MHz (5 Digits Maximum + Decimal)
Line 3: XY ZZ	Week of Year Last Digit of Year Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EV32C1	CERAMIC	3.3V	OS56	10/00