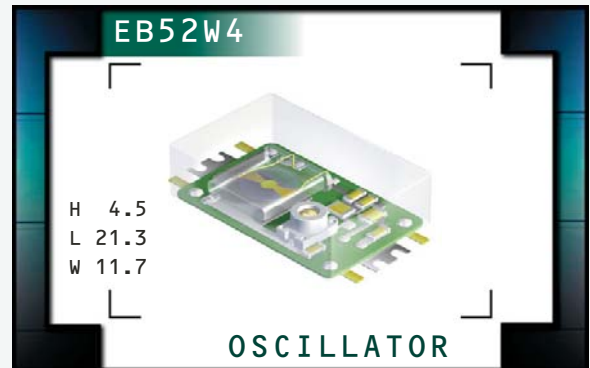


EB52W4 Series

- Temperature Compensated Crystal Oscillators (TCXO)
- LVCMOS Output
- +3.3V Supply Voltage
- Internal Mechanical Trim Function
- External Voltage Control Option
- 4 Pad Metal SMD Package



NOTES

TABLE 1: PART NUMBERING CODES

Operating Temperature Range	Code	Frequency Stability			
		X = Available from 1,200MHz to 27,000MHz Y = Available at any Frequency			
		±1.5ppm	±2.0ppm	±3.0ppm	±5.0ppm
0°C to +50°C	A	Y	Y	Y	Y
0°C to +70°C	B	X	Y	Y	Y
-20°C to +70°C	C		X	Y	Y
-30°C to +70°C	D			Y	Y
-40°C to +85°C	E				Y

ELECTRICAL SPECIFICATIONS

Frequency Range		1.200MHz to 40.000MHz
Operating Temperature Range		See Table 1
Storage Temperature Range		-40°C to 85°C
Supply Voltage (V_{DD})		3.3V _{DC} ±5%
Load Drive Capability		15pF Maximum
Internal Trim (Top of Can)		±3ppm Minimum
Control Voltage (External)		1.65V _{DC} ±1.35V _{DC} , Positive Transfer Characteristic
Frequency Deviation	at V _C = 1.65V _{DC} ±1.35V _{DC} , V _{DD} = 3.3V _{DC}	±7ppm Minimum, ±20ppm Maximum
Input Current	≤ 27.000MHz	20mA Maximum
	> 27.000MHz	35mA Maximum
Aging (at 25°C)		±1ppm / year Maximum
Frequency Stability	vs. Operating Temperature Range	See Table 1
	vs. Input Voltage (±5%)	±0.3ppm Maximum
	vs. Load (±2pF)	±0.2ppm Maximum
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	over 20% to 80% of Waveform	10 nSeconds Maximum
Duty Cycle	at 50% of Waveform	50 ±10(%)
Typical Phase Noise	F ₀ = 19.200MHz, at 25°C, at Nominal V _{DC} and V _C	
	at 10Hz Offset	-70dBc/Hz
	at 100Hz Offset	-100dBc/Hz
	at 1kHz Offset	-130dBc/Hz
	at 10kHz Offset	-140dBc/Hz
	at 100kHz Offset	-145dBc/Hz
Modulation Bandwidth	at -3dB with V _C = 1.65V _{DC}	10kHz Minimum
Input Impedance		10kOhms Typical

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB52W4	Metal SMD	3.3V	OS1H	01/05

PART NUMBERING GUIDE

EB52W4 E 25 V - 12.800M

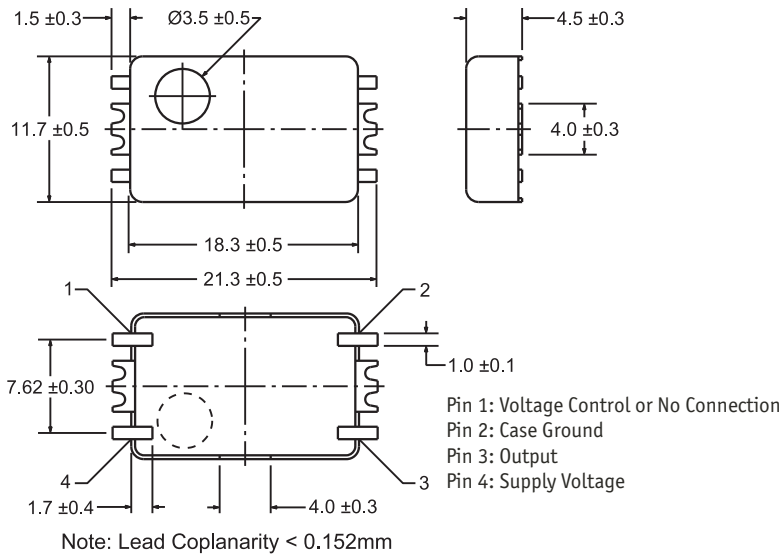
OPERATING TEMP. RANGE
One Letter Code Per Table 1

FREQUENCY STABILITY
Two Digit Code Per Table 1

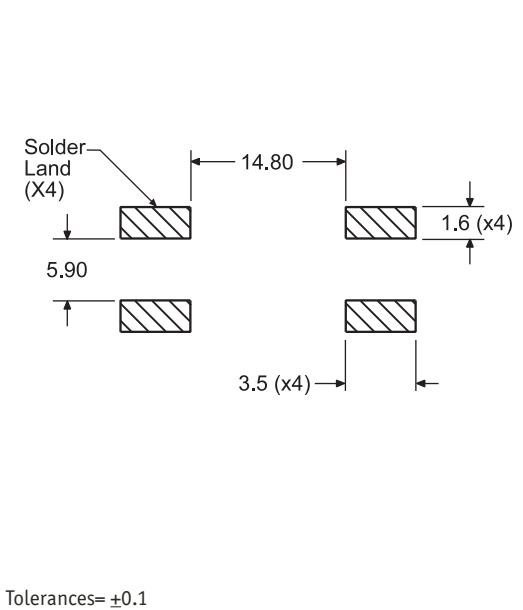
FREQUENCY

EXTERNAL TRIM
N=None (No Connection on Pin 1)
V=External Control Voltage

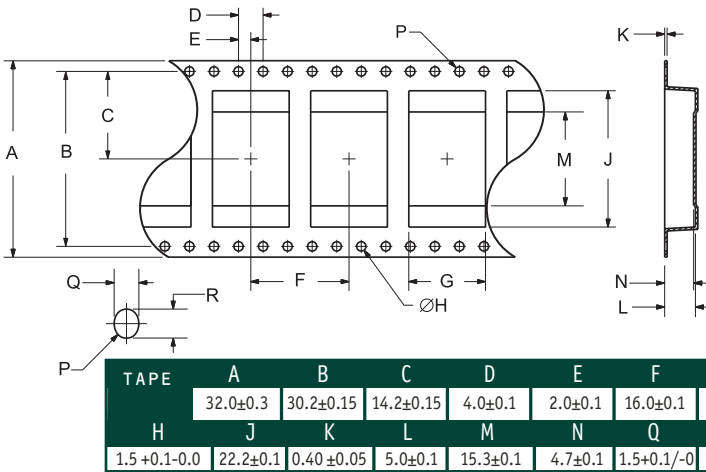
MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



SUGGESTED SOLDER PAD LAYOUT ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



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

Line 1: ECLIPTEK
 Line 3: XX.XXX M _____ Frequency in MHz (5 Digits Maximum + Decimal)
 Line 4: XX Y ZZ _____
 _____ Week of Year
 _____ Last Digit of Year
 _____ Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB52W4	Metal SMD	3.3V	OS1H	01/05



Product EOL Announcement

The Product EOL Announcement signifies that a product series has entered the final phase of the Ecliptek Product Life Cycle, and serves as advance notice of product termination per the Ecliptek End of Life (EOL) policy.

Ecliptek Corporation announces End of Life initiation for the following product series with the intent of discontinuing its availability.

EOL Series	Description
EB52W4	Temperature Compensated Quartz Crystal Clock Oscillators TCXO TC(VC)XO LVCMOS (CMOS) 3.3Vdc 4 Pad 11.7mm x 21.3mm x 4.5mm Metal (PCB) Surface Mount (SMD)

EOL Timeline

The last date Ecliptek will accept orders (Stage 2) and the last date orders may be scheduled for shipment (Stage 3) are listed in the table below.

Stage 1 EOL Announce Date	Stage 2 Last Date to Order	Stage 3 Last Date to Ship
20-January-2012	28-September-2012	21-December-2012

Alternative Products

In order to fulfill your requirements beyond this product's discontinuation, we invite you to evaluate alternative Ecliptek products. Because this series does not have a recommended alternative Ecliptek product series, please contact one of our Global Customer Support Executives to assist you with finding the best Ecliptek product for your application.

Automated EOL Notification

Ecliptek offers automated notification of Product EOL Announcements. Place part numbers for which you'd like to receive EOL Notifications into your personalized [Parts List](#) on our website and we'll email you when EOL is announced.

Please do not hesitate to contact us if you have any questions or need further assistance.

Ecliptek Global Customer Support Team
(800) 433-1280 x300
customersupport@ecliptek.com

All product warranties for discontinued products will be honored in full according to Ecliptek [Terms and Conditions of Sale](#).