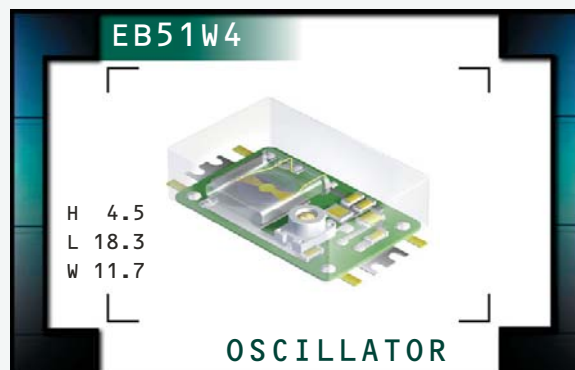


EB51W4 Series



- Temperature Compensated Crystal Oscillator (TCXO)
- HCMOS/TTL Output
- 5.0V Supply Voltage
- SMD package
- Stability to 1.5ppm
- External voltage control option available
- Internal Mechanical Trim (Top of Can)



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})		5.0V _{DC} ±5%
Load Drive Capability		10TTL Load or 15pF HCMOS Load Maximum
Internal Trim (Top of Can)		±3ppm Minimum
Control Voltage (External)		2.5V _{DC} ±2.0V _{DC} , Positive Transfer Characteristic
Frequency Deviation	at $V_C = 2.5V_{DC}$ ±2.0V _{DC} , $V_{DD} = 5.0V_{DC}$	±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})	w/TTL Load	2.4V _{DC} Minimum
	w/HCMOS Load	$V_{DD} - 0.5V_{DC}$ Minimum
Output Voltage Logic Low (V_{OL})	w/TTL Load	0.4V _{DC} Maximum
	w/HCMOS Load	0.5V _{DC} Maximum
Rise Time / Fall Time	0.4V _{DC} to 2.4V _{DC} w/TTL Load; 20% to 80% of Waveform w/HCMOS Load	10 nSeconds Maximum
Duty Cycle	at 1.4V _{DC} w/TTL Load; at 50% of Waveform w/HCMOS Load	50 ±10(%)
Typical Phase Noise	Fo = 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 $V_C = 2.5V_{DC}$	10kHz Minimum
Input Impedance		10kOhms Typical

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB51W4	Metal SMD	5.0V	OS1G	01/05

EB51W4 E 25 V - 12.800M

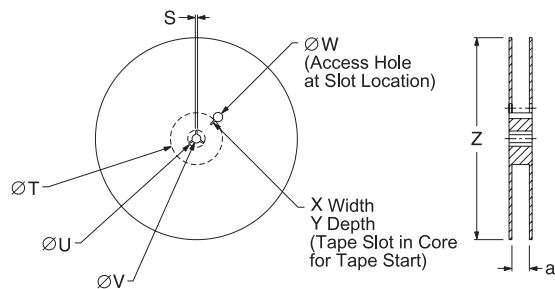
FREQUENCY

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

ALL DIMENSIONS IN MILLIMETERS



ALL DIMENSIONS IN MILLIMETERS



REEL	S	T	U	V	W
	1.5 MIN	50 MIN	20.2 MIN	13.0±0.2	40 MIN
X	Y	Z	a	QTY/REEL	
2.5 MIN	10 MIN	360 MAX	32.4+2-0	1,000	

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
- Eclipse Manufacturing Identifier

Specifications subject to change without notice.