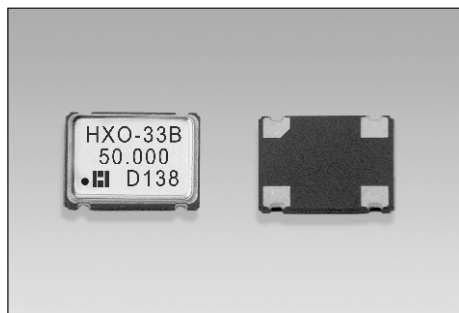




# SURFACE MOUNT OSCILLATOR

## • HXO-33 Series 7.0X5.0X1.5mm



The HXO-33 series is an ultra miniature package clock oscillator with size of 7.0X5.0X1.5mm. It is mainly used in portable PC and telecom munication devices and equipment.

### FEATURES

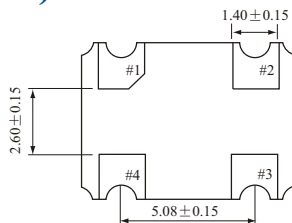
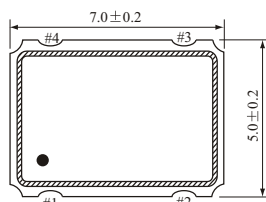
- Miniature Package
- Tri-State Enable/Disable
- TTL/HCMOS compatible
- Tape and Reel
- IR Re-flow
- 5.0V Input Voltage

## Electrical Specifications

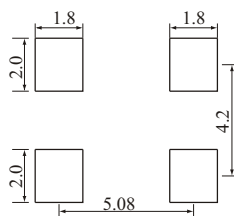
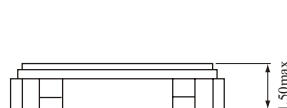
Parameter	Condition	HXO-33	
Frequency Range	F <sub>0</sub>	1MHz~125.00MHz	
Frequency Stability*	All Condition*	± 25ppm, ± 50ppm, ± 100ppm	
Operating Temperature Range	T <sub>OPR</sub>	0°C~70°C (-40°C~+85°C option)	
Storage Temperature Range	T <sub>STG</sub>	-55°C~+125°C	
Power supply Voltage	V <sub>DD</sub>	5.0V+/-10%	
Aging(First Year)	25°C ± 3°C	± 5ppm	
Supply Current	I <sub>DD</sub>	1.000 to 23.999MHz	20mA Max
		24.000MHz to 49.999MHz	30mA Max
		50.000MHz to 69.999MHz	40mA Max
		70.000MHz to 125.000MHz	60mA Max
Output Symmetry	Sym	At 1/2V <sub>DD</sub>	40/60%(45/55% Option)
Rise time	T <sub>r</sub>	10%V <sub>DD</sub> ~90%V <sub>DD</sub>	5 nS Max
Fall Time	T <sub>f</sub>	90%V <sub>DD</sub> ~10%V <sub>DD</sub>	5 nS Max
Output Voltage	V <sub>OH</sub>		90% V <sub>DD</sub> min
	V <sub>OL</sub>		10% V <sub>DD</sub> max
Output Load	TTL Load		1~10TTL
	HCMOS Load		30pF Max(15pF type)
Start-up Time	T <sub>s</sub>		10mS Max
Pin 1,tri-state function			Pin 1=H or open....Output active at pin 3 Pin 1=L.....high impedance at pin 3

\*Include: 25°C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration

## Mechanical Dimensions(mm)



Pin	Connection
#1	Tri-State/NC
#2	GND
#3	Output
#4	+5V <sub>DC</sub>



Recommended Solder Pattern

\*\*\*Note: A 0.01uF bypass capacitor should be placed between V<sub>DD</sub>(Pin4) and GND(Pin2) to Minimize power supply line noise