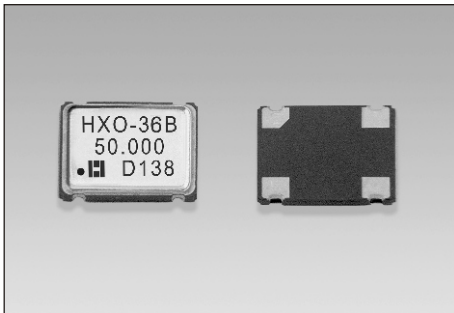




# SURFACE MOUNT OSCILLATOR

## • HXO-36&37&39 Series 7.0X5.0X1.5 mm



The HXO-36&37&39 series is an ultra miniature package clock oscillator with size of 7.0X5.0X1.5mm. It is mainly used in portable PC and telecommunication devices and equipment.

### FEATURES

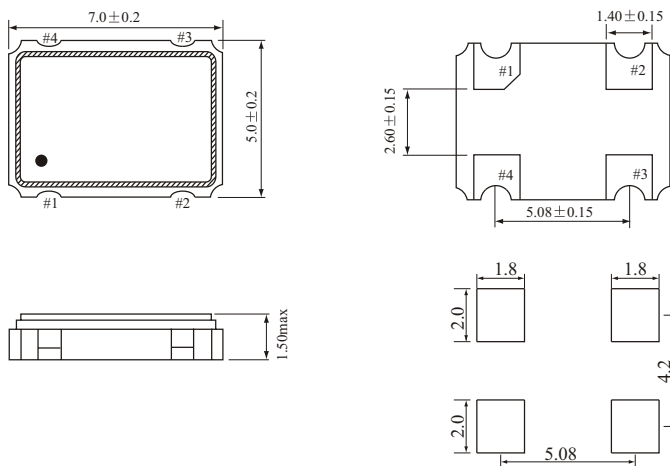
- Miniature Package
- Tri-State Enable/Disable
- TTL/HCMOS compatible
- Tape and Reel
- IR Re-flow
- 3.3V Input Voltage
- 2.5V&1.8V Option

### Electrical Specifications

Parameter	Condition	HXO-36	HXO-37	HXO-39
Frequency Range	F <sub>O</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>	3.3V+/-10%	1.8V+/-10%	2.5V+/-10%
Aging(First Year)	25°C ± 3°C	± 5ppm		
Supply Current	I <sub>DD</sub>	1.000MHz to 23.999MHz	15mA Max	10mA Max
		24.000MHz to 49.999MHz	20mA Max	12mA Max
		50.000MHz to 69.999MHz	30mA Max	15mA Max
		70.000MHz to 125.000MHz	45mA Max	25mA 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>	8 nS Max	6 nS Max
Fall Time	T <sub>f</sub>	90%V <sub>DD</sub> ~10%V <sub>DD</sub>	8 nS Max	6 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	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	+3.3V <sub>DC</sub> (2.5V&1.8V)

### 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