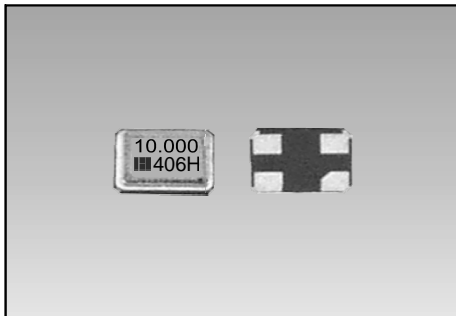




# SMD CRYSTAL UNITS



## • HCX-5SB Series 5.0X3.2X0.90 mm



### FEATURES

- Compact and thin (5.0X3.2X0.90mm max.)
- Prepared frequencies can meet most of bluetooth chipsets
- Excellent heat resistance and shock resistance.
- Products that are lead-free. These can meet the requirement of re-flow profiling using lead-free solder

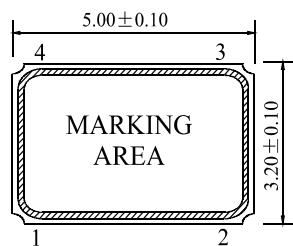
SMD Crystal units

### Electrical Specifications

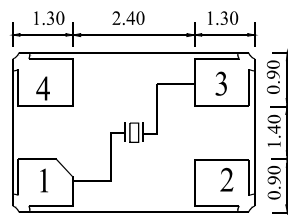
Item	Type	HCX-5SB				
Frequency Range	F0	8 to 9.999MHz	10 to 19.999MHz	20 to 29.999MHz	30 to 47.999MHz	48 to 80.000MHz
Mode of Vibration		Fundamental				3 <sup>rd</sup> Overtone
Load Capacitance	CL	10pF to Series				
Frequency Tolerance	$\Delta F/F_0$	$\pm 10\text{ppm}, \pm 30\text{ppm}, \pm 50\text{ppm}(\text{At } 25^\circ\text{C})$				
Equivalent Series Resistance	ESR	100 $\Omega$ max.	80 $\Omega$ max.	70 $\Omega$ max.	50 $\Omega$ max.	70 $\Omega$ max.
Temperature Stability	TC	$\pm 10\text{ppm}, \pm 30\text{ppm}, \pm 50\text{ppm}(\text{Refer to } 25^\circ\text{C})$				
Operating Temperature Range	T <sub>OPR</sub>	-20~+70°C, -30~+85°C Option				
Storage Temperature Range	T <sub>STG</sub>	-55~+125°C				
Shunt Capacitance	C0	7pF max.				
Insulator Resistance	IR	500M $\Omega$ min. (At 100V <sub>DC</sub> )				
Drive Level	DL	100 $\mu$ W(300 $\mu$ W max.)				
Aging	Fa	$\pm 2\text{ppm max. (At } 25^\circ\text{C, First year)}$				
Packing Unit		1000pcs/reel				

\*\*Please contact us for inquiries regarding other Specifications

### Mechanical Dimensions(mm)



Top View



Recommended Solder Pattern

