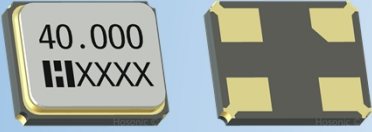


## E1SB Series 2.0×1.6×0.50mm



### Features

- Small SMD package
- Excellent electrical performance such as frequency and resistance
- Excellent environmental reliability

### Applications

- Wireless communication device
- SIP module
- Wearable product

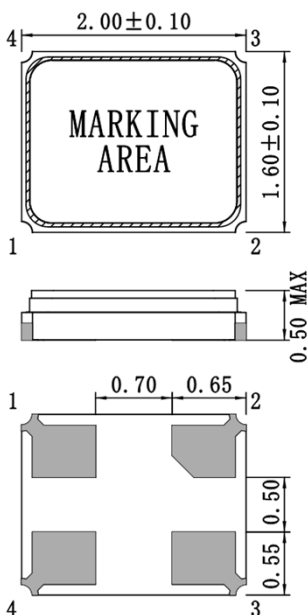
### Electrical Specifications

Item	Symbol	Condition	E1SB
Frequency Range	$f_{nom}$	-	16 ~ 96MHz
Mode of Vibration	-	-	Fundamental
Load Capacitance	CL	-	6 ~ 16pF, or specify
Frequency Tolerance (at 25°C)	$f_{tol}$	-	$\pm 10$ ppm, or specify
Equivalent Series Resistance	ESR	16.0 ~ 18.9MHz	200Ω max.
		19.0 ~ 24.9MHz	100Ω max.
		25.0 ~ 29.9MHz	80Ω max.
		30.0 ~ 74.9MHz	60Ω max.
		75.0 ~ 96.0MHz	30Ω max.
Temperature Stability	$f_{temp}$	Refer to 25°C	$\pm 15$ ppm, or specify
Operating Temperature Range	$T_{opr}$	-	-30 ~ +85°C, or specify
Storage Temperature Range	$T_{stg}$	-	-40 ~ +85°C
Shunt Capacitance	$C_0$	-	2pF max.
Insulator Resistance (at DC 100V)	IR	-	500MΩ min.
Drive Level	DL	-	1 ~ 100μW (50μW typ.)
Aging (at 25°C)	Fa	-	$\pm 3$ ppm / year max.

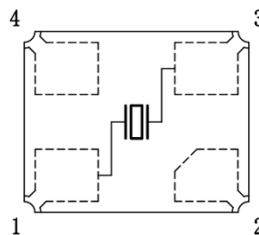
\*\*Please contact us for inquiries regarding other Specifications.

### Mechanical Dimensions

Unit: (mm)



### Pin Connection (Top View)



Pin	Function
1, 3	Crystal
2, 4	GND

Note: #2 & #4 are connected to Lid.

### Recommended PAD Layout

