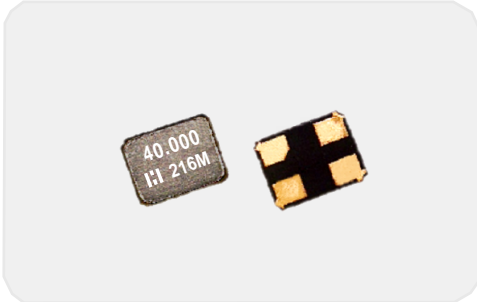


## • ETSB Series

## 1612 Seam Sealing Crystal



### FEATURES

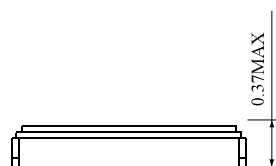
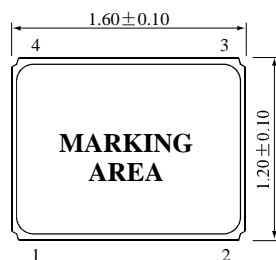
- Very compact and thin (1.6\*1.2\*0.37mm )
- Frequency range of 24 to 96M with Fund
- Ideal for Wearable device and Short-range Wireless module
- Lead-free. Meets the requirements for re-flow profiling using lead-free solder

### Electrical Specifications

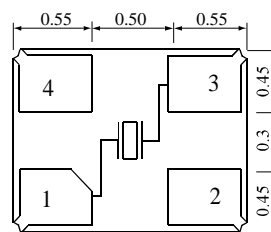
Item	Type	ETSB			
		24 to 29.999MHz	30 to 39.999MHz	40 to 59.999MHz	60 to 96.000MHz
Frequency Range	F0	24 to 29.999MHz	30 to 39.999MHz	40 to 59.999MHz	60 to 96.000MHz
Mode of Vibration		Fundamental			
Load Capacitance	CL	6 to 16pF			
Frequency Tolerance	$\Delta F/F_0$	$\pm 10\text{ppm}, \pm 30\text{ppm}, \pm 50\text{ppm}(\text{At } 25^\circ\text{C})$			
Equivalent Series Resistance	ESR	100 $\Omega$ max.	80 $\Omega$ max.	60 $\Omega$ max.	40 $\Omega$ max.
Temperature Stability	TC	$\pm 10\text{ppm}, \pm 15\text{ppm}, \pm 30\text{ppm}(\text{Refer to } 25^\circ\text{C})$			
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	2pF max.			
Insulator Resistance	IR	500M $\Omega$ min. (At 100V <sub>DC</sub> )			
Drive Level	DL	50 $\mu$ W(100 $\mu$ W max.)			
Aging	Fa	$\pm 2\text{ppm max. (At } 25^\circ\text{C, First year)}$			
Packing Unit		3000pcs/reel			

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

### Mechanical Dimensions(mm)



### Top View



### Recommended Solder Pattern

