

# SMD CRYSTAL UNITS



## • ETSB Series 1.6\*1.2 Seam Sealing Crystal



#### **FEATURES**

- Very compact and thin (1.6\*1.2\*0.37mm max.)
- 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	Туре	ETSB			
Frequency Range	F0	24 to 29.999MHz	30 to 39.999MHz	40 to 60.000MHz	60.1 to 96.00MHz
Mode of Vibration		Fundamental			
Load Capacitance	CL	8 to 16pF			
Frequency Tolerance	△F/ F0	$\pm 10$ ppm, $\pm 30$ ppm, $\pm 50$ ppm(At 25°C)			
Equivalent Series Resistance	ESR	100 Ω max.	80 Ω max.	60Ω max.	40 Ω max.
Temperature Stability	TC	$\pm 10$ ppm, $\pm 15$ ppm, $\pm 30$ ppm(Refer to 25°C)			
Operating Temperature Range	Topr	-20~+70°C,-30~+85°C Option			
Storage Temperature Range	Tstg	-55~+125℃			
Shunt Capacitance	C0	2pF max.			
Insulator Resistance	IR	500M Ω min. (At 100Vpc)			
Drive Level	DL	50μW(100μW max.)			
Aging	Fa	$\pm$ 2ppm max. (At 25 °C, First year)			
Packing Unit		3000pcs/reel			

 $<sup>**</sup>Please\ contact\ us\ for\ inquiries\ regarding\ other\ Specifications$ 

#### **Mechanical Dimensions(mm)**



### Top View

