



# SMD Seam Crystal Units 3.2 x 2.5 x 0.7 mm 3S Series



## Features

- High precision characteristics covering up to wide frequency range.
- Higher frequency stability and reliability.
- Excellent for reducing EMI effect.
- The best choice of Bluetooth, wireless communication set, DSC, PDA, mobile phone and USB interface card.

## Electrical Specifications

Item / Type

Frequency Range	8 ~ 125MHz	
Frequency Tolerance (at 25 °C)	± 20 ppm, or specify	± 10 ppm
Frequency Stability Over Operating Temperature Range	± 20 ppm, or specify	± 10 ppm
Operating Temperature Range	-10 ~ +70 °C, or specify	
Shunt Capacitance (C0)	5 pF Max. (2 pF typical)	
Drive Level	1 ~ 200 µW (100 µW typical)	
Load Capacitance	10 pF, 16 pF, 20 pF, or specify	6 pF, 9 pF, 10 pF, 12 pF, 16 pF
Aging (at 25 °C)	± 3 ppm / year Max.	± 1 ppm / year Max.
Storage Temperature Range	- 40 ~ + 85 °C	

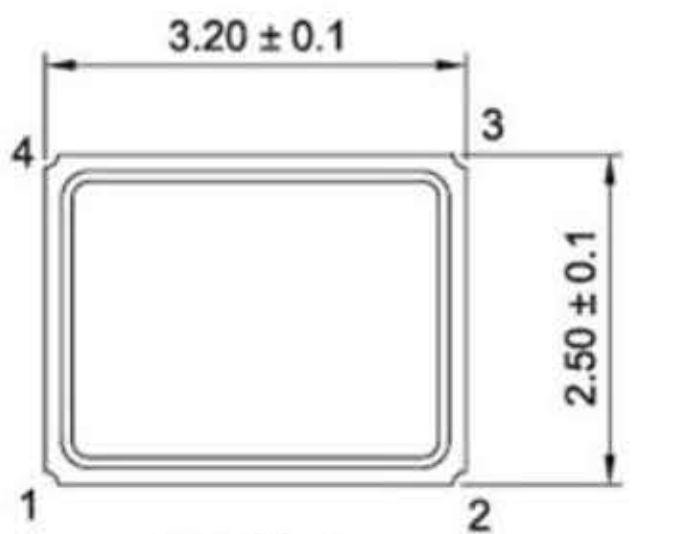
## Equivalent Series Resistance(ESR)

Fundamental

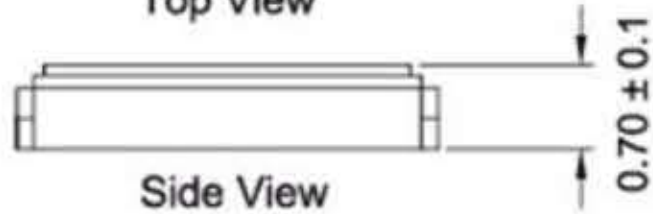
3rd Overtone

8 ~ 12 MHz	80 Ω Max.	40 ~ 54 MHz	60 Ω Max.
12 ~ 54 MHz	60 Ω Max.	60 ~ 125 MHz	80 Ω Max.

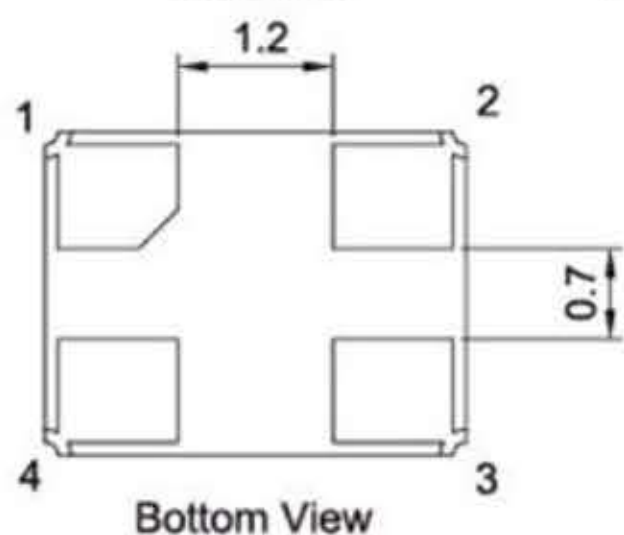
## Dimensions



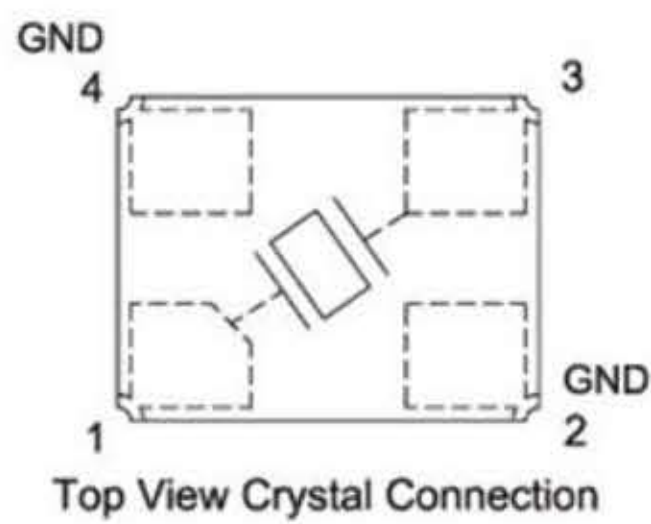
Top View



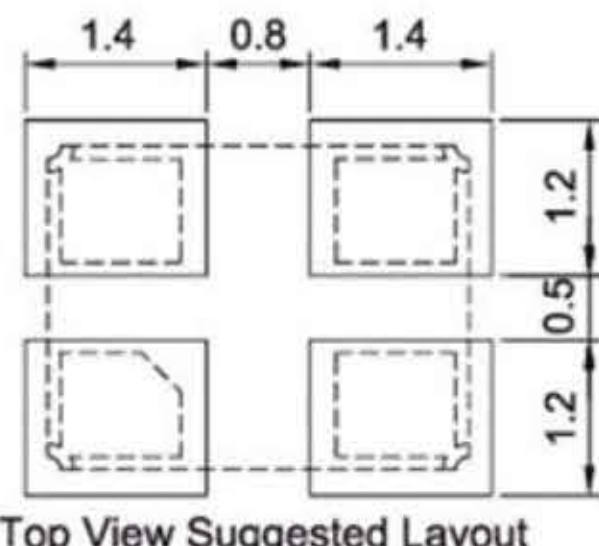
Side View



Bottom View



Top View Crystal Connection



Top View Suggested Layout

Units: mm