

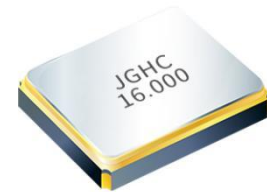
# SMD Seam Sealing Crystal

## 2.5x2.0x0.55mm S22 Series



### Features

- Extremely small SMD type crystal units.
- High precision and high frequency stability.
- The best choice of Bluetooth,Wi-Fi and other short range wireless communication.
- RoHS Compliant / Pb Free.



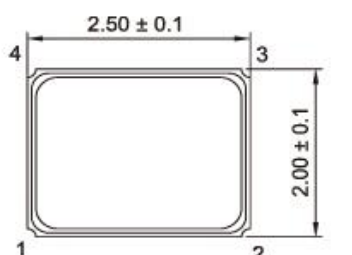
### Crystals specifications

| ITEMS/TYPE   | S22                         |
|--|-----------------------------|
| Frequency Range                                      | 12~54MHz                    |
| Load Capacitance                                     | 8pF, 10pF, 12pF, or specify |
| Frequency Tolerance (at 25°C)                        | ±10ppm, ±20ppm, or specify  |
| Frequency Stability Over Operating Temperature Range | ±10ppm, ±20ppm, or specify  |
| Operating Temperature Range                          | -40~+85°C, or specify       |
| Shunt Capacitance (C0)                               | 3pF Max.                    |
| Drive Level  | 1~200μW (100μW typical)     |
| Aging (at 25°C)                                      | ±3ppm/year Max.             |
| Storage Temperature Range                            | -40~+125°C                  |

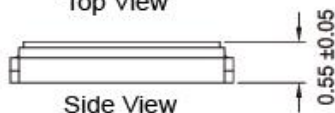
### Equivalent Series Resistance(ESR)

| Frequency Range  | Mode      | ESR.      | Frequency Range  | Mode      | ESR.    |
|------------------|-----------|-----------|------------------|-----------|---------|
| 12.000~15.999MHz | FAT,Fundl | 150 ΩMax. | 20.000~29.999MHz | uAT,Fundl | 60 ΩMax |
| 16.000~19.999MHz | uAT,Fundl | 100 ΩMax. | 30.000~54.000MHz | uAT,Fundl | 40 ΩMax |

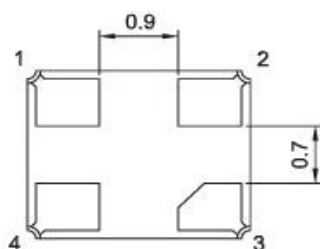
### Dimensions and patterns(unit:mm)



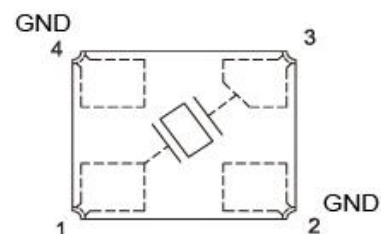
Top View



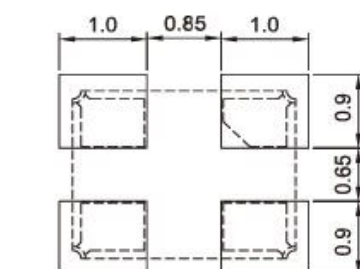
Side View



Bottom View



Top View Crystal Connection



Top View Suggested Layout