

# TSS-3225A

## Miniature Surface Mount Type Crystal Units

### ■ Feature

Standardized 3.2×2.5mm package. Hermetic sealing by seam welding. Superior mechanical shock and vibration resistance. Well Suited for all Cellular Phones, NFC, Bluetooth, WLAN and Zigbee where small size is important. Product is lead free in construction. Can be mounted to PCB using a lead free solder reflow process.

Now printing

### ■ Standard Specifications

Size (mm)	3.2×2.5, 0.70±0.1
Overtone Order	Fundamental
Frequency Range (MHz)	14.4 ~ 60 (See Table 1)
Equivalent Series Resistance (Ω)	150 max.
Drive Level (μW)	30, 50
Operating Temperature Range	See Table 2
Frequency Temperature Characteristics (in reference to 25 °C)	See Table 2

### ■ Table 1 Typical Frequencies

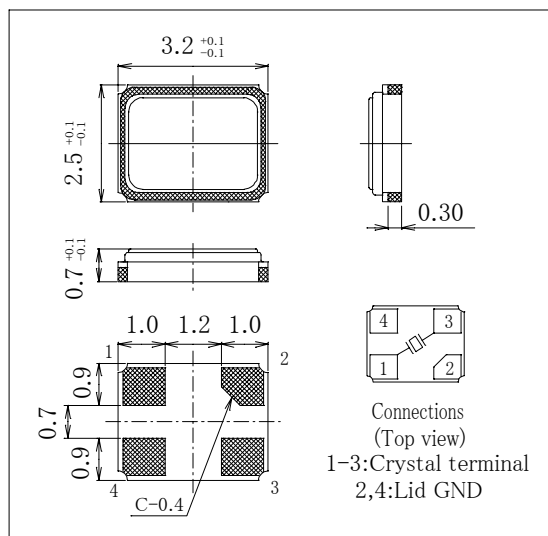
Frequency (MHz)	
14.7456	16.000
19.200	19.680
19.800	24.000
26.000	32.000
36.000	40.000
44.000	

### ■ Table 2 Frequency Temperature Characteristics

Temperature Range	Temperature Characteristics(×10 <sup>-6</sup> )	Frequency Tolerance(×10 <sup>-6</sup> )
-10 ~ 60 °C	±5	±10 ~ ±50 (25 °C ± 3°C)
-20 ~ 70 °C	±10	
-30 ~ 85 °C	±15	

\* Products with specific requirements are available request.

### ■ Outline Dimensions



### ■ Reference Land Pattern

