

# TSS-7050A

## Surface Mount Type Crystal Units

### ■Feature

Common standard 7.0×5.0mm package. Hermetic sealing by seam welding. Low frequency available starting from 4MHz. Excellent mechanical shock and vibration resistance. Well suited for automotive telematics and mobile radio telecommunication equipment. Product is lead free in construction. Can be mounted to PCB using a lead free solder reflow process.

Now printing

### ■Standard Specifications

Size (mm)		7.0×5.0, 1.20±0.2
Overtone Order		Fundamental / 3rd Overtone
Frequency Range (MHz)	Fundamental	4 ~ 60 (See Table 1)
	3rd Overtone	35 ~ 150
Equivalent Series Resistance (Ω)	Fundamental	300 max.
	3rd Overtone	80 max.
Drive Level (μW)		50
Operating Temperature Range		See Table 2
Frequency Temperature Characteristics (in reference to 25 °C)		See Table 2

■Table 1 Typical Frequencies  
(Fundamental)

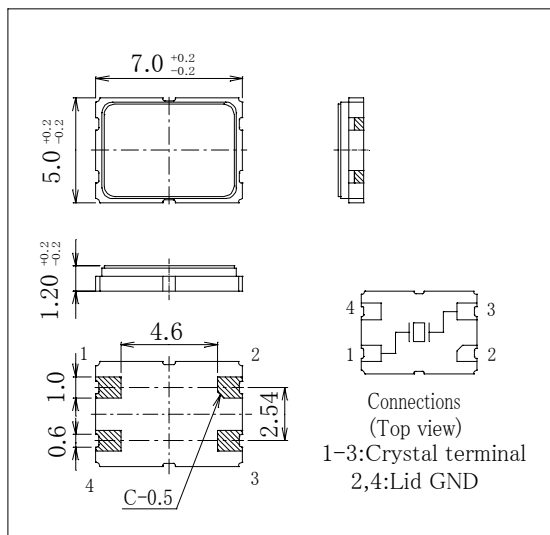
Frequency (MHz)			
4.000	6.000	7.3728	8.000
8.192	9.84375	11.0592	12.000
13.000	13.56875	14.7456	16.000
16.384	16.800	18.432	19.200
19.440	20.000	21.250	22.000
24.000	25.000	26.000	27.000
32.000			

■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

