

# SMD Type Crystal Resonators

## SMD-49, SMD-49TA/TB



SMD-49 Actual size

### ■ Features of SMD-49

- Surface mount type of AT-49 crystal resonator.
- High reliability with complete sealing of metal package.
- Good for automatic mounting and reflow soldering.

### ■ Features of SMD-49TA/TB

- Thin model of SMD 49.
- SMD49TA has thickness of 2.6mm.
- SMD49TB has thickness of 2.3mm.

### ■ Generic Specification

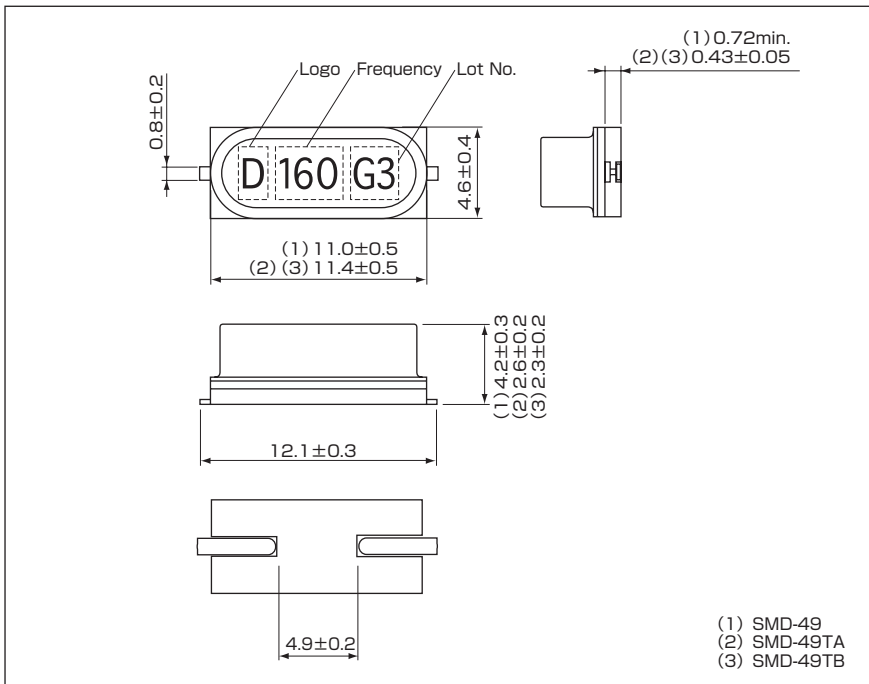
Item	Type	SMD-49	SMD-49TA	SMD-49TB
Frequency Range		3.2~70.0MHz	3.579~16.000MHz	16.000~70.000MHz
Vibration Mode		Fundamental, 3rd overtone		
Load Capacitance		Series 12pF, 16pF, 20pF, 32pF (Fundamental) 8pF, 10pF, 12pF, 16pF (3rd overtone)		
Drive Level		Fundamental : 10 μW (300 μW max.) 3rd overtone : 50 μW (1 mW max.)		
Frequency Tolerance		±50×10 <sup>-6</sup> , ±100×10 <sup>-6</sup> (at 25°C)		
Series Resistance		40~300Ω		40~100Ω
Frequency Characteristics over Temperature		±50×10 <sup>-6</sup> , ±100×10 <sup>-6</sup> / -10~+60°C (Ref. to 25°C)		
Storage Temperature Range		-30~+80°C		
Aging		±5×10 <sup>-6</sup> max./year		



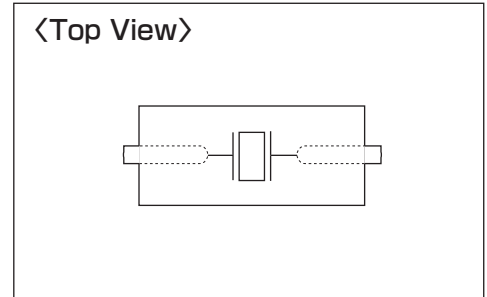
SMD-49TA/TB Actual size

Packing Unit : SMD-49 1000pcs./reel (φ 330) Consult our sales representative for other specifications.  
 SMD-49TA/TB 2000pcs./reel (φ 330) Refer to page 38 for standard specification.

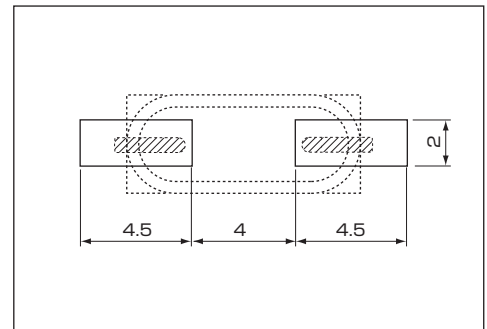
### ■ Dimensions [mm]



### ■ Internal Connections



### ■ Recommended Land Pattern [mm]



(1) SMD-49  
 (2) SMD-49TA  
 (3) SMD-49TB