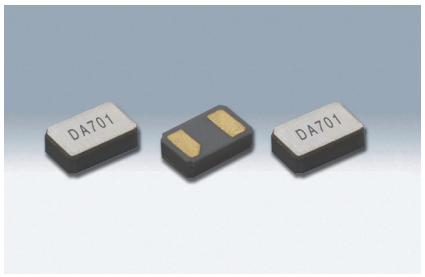
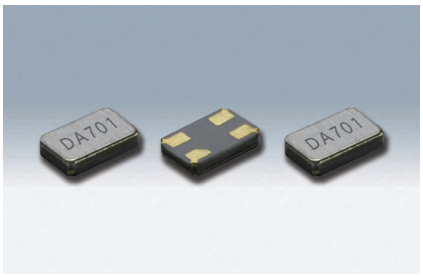
SMD Tuning Fork Crystal Resonators / kHz Band Crystal Resonators

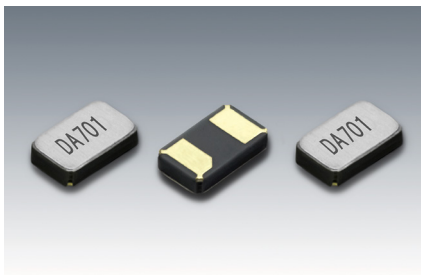
DST1610A/DST1610AL/DST210AC



DST1610A Actual size



DST1610AL Actual size



DST210AC Actual size

■ Features

- Ultra miniature SMD tuning fork crystal resonator
  DST1610A: 1610size height 0.45mm
  DST1610AL: 1610size height 0.3mm
  DST210AC: 2012size height 0.5mm
- A ceramic package with a metal lid providing high precision and reliability.
- Series Resistance 50kΩ max. available (DST1610A).
- Metal lid connected to GND terminal to reduce EMI (DST1610AL).
- Suitable for mobile communications and consumer devices.
- AEC-Q200 Compliant (DST210AC)

Pb-Free

RoHS Compliant

■ Applications

- Mobile communications and consumer devices, etc.
- Smart card and Wearable devices (DST1610AL).

■ Standard Specification

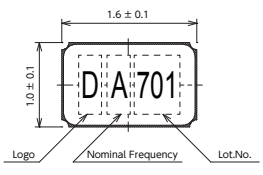
Item \ Type	DST1610A	DST1610AL	DST210AC
Frequency Range	32.768kHz		
Load Capacitance	4pF, 6pF, 7pF, 9pF, 12.5pF		
Drive Level	0.1μW (0.5μW max.)		
Frequency Tolerance	±20×10^{-6}(at 25℃)		
Series Resistance	50kΩ max.	80kΩ max.	
Turnover Temperature	+25℃±5℃		
Parabolic Coefficient	−0.04×10^{-6}/℃^{2} max.		
Operating Temperature Range	−40 to +85℃		
Storage Temperature Range	−40 to +85℃		
Shunt Capacitance	1.6pF typ.	1.3pF typ.	1.2pF typ.	1.3pF typ.
Packing Unit (1)	3000pcs/reel (φ180)		

(1) Moisture prevention packing is unnecessary.
Moisture Sensitivity Level : LEVEL 1(IPC/JEDEC J-STD-033)

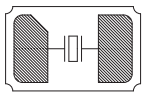
Consult our sales representative for other specifications.

■ DST1610A [mm]

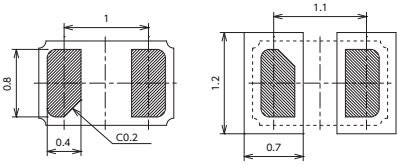
■ Dimensions



■ Internal Connections

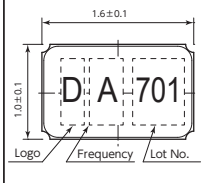


■ Recommended Land Pattern
<Top View>

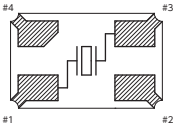


■ DST1610AL [mm]

■ Dimensions

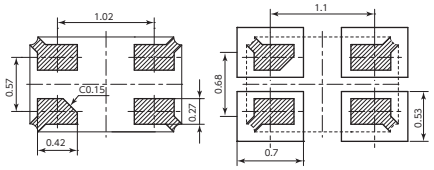


■ Internal Connections
<Top View>



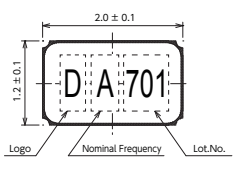
1 & # 3 connected to quartz element
2 connected to the cover
4 open (unconnected)
2 recommended GND connection

■ Recommended Land Pattern
<Top View>

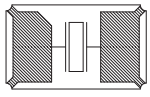
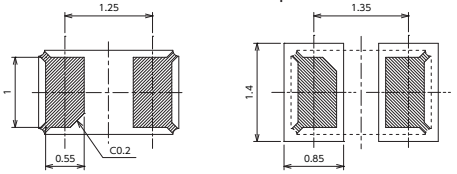


■ DST210AC [mm]

■ Dimensions



■ Internal Connections
<Top View>



■ Recommended Land Pattern
<Top View>