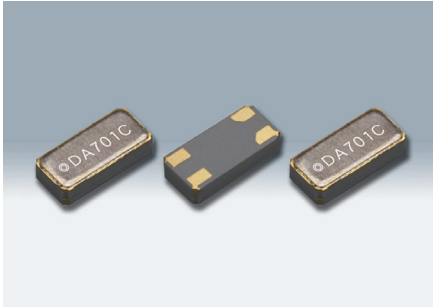


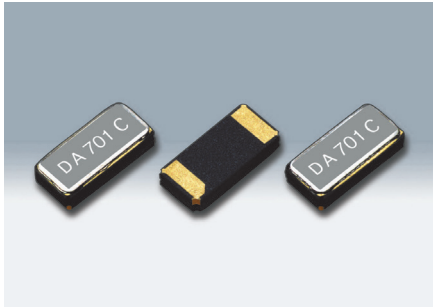
# SMD Tuning Fork Crystal Resonators / kHz Band Crystal Resonators

## DST311S/DST310S



DST311S

Actual size

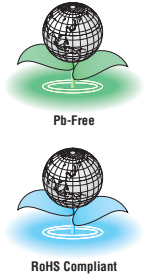


DST310S

Actual size

### ■ Features

- 3215 size miniature and lightweight SMD tuning fork crystal resonator with a low profile of 0.75mm.
- A ceramic package with a metal lid providing high precision and reliability.
- Metal lid connected to GND terminal to reduce EMI (DST311S).
- Noise sensitive applications (smart meter etc.) (DST311S).
- Series Resistance 50kΩ max. available.
- AEC-Q200 Compliant (DST310S)



### ■ Applications

- Mobile communications, radio-controlled clock, digital home appliances.
- Automotive applications such as multimedia devices (AEC-Q200 Compliant).

### ■ Standard Specification

Item	Type	DST311S	DST310S
Frequency Range		32.768kHz	
Load Capacitance		7pF, 9pF, 12.5pF	
Drive Level		0.2μW (1.0μW max.)	
Frequency Tolerance		±20×10 <sup>-6</sup> (at 25°C)	
Series Resistance		50kΩ max.	
Turnover Temperature		+25°C±5°C	
Parabolic Coefficient		-0.04×10 <sup>-6</sup> /°C <sup>2</sup> max.	
Operating Temperature Range		-40 to +85°C	
Storage Temperature Range		-40 to +85°C	
Shunt Capacitance		0.9pF 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.

### ■ DST311S

[mm]

### ■ DST310S

[mm]

DST311S		DST310S	
<h4>■ Dimensions</h4>	<h4>■ Internal Connections</h4> <p>&lt;Top View&gt;</p> <p>#1 &amp; #4 connected to quartz element #2 &amp; #3 connected to the cover #2 &amp; #3 recommended GND connection</p> <h4>■ Recommended Land Pattern</h4> <p>&lt;Top View&gt;</p>	<h4>■ Dimensions</h4>	<h4>■ Internal Connections</h4> <p>&lt;Top View&gt;</p> <h4>■ Recommended Land Pattern</h4> <p>&lt;Top View&gt;</p>