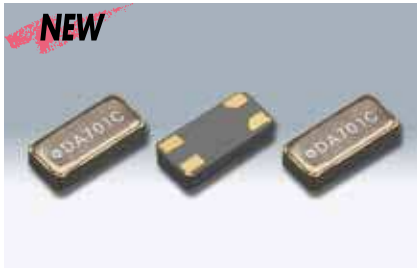


SMD Tuning Fork Crystal Resonators / kHz Band Crystal Resonators

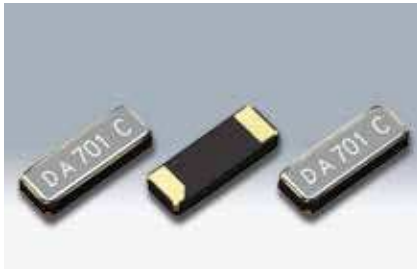
DST311S/DST310S/DST410S



DST311S Actual size



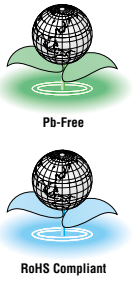
DST310S Actual size



DST410S Actual size

■ Features

- 3215/4115 size miniature and lightweight SMD tuning fork crystal resonator with a low profile of 0.75mm.
- A ceramic package providing high precision and reliability.
- Metal lid connected to GND terminal to reduce EMI (DST311S).
- Noise sensitive application (smart meter etc.) (DST311S).
- AEC-Q200 Compliant (DST310S, DST410S)



■ Applications

- Mobile communications, PDA, wave clock, digital appliance.
- Automotive applications such as multimedia device (AEC-Q200 Compliant).

■ Standard Specification

Item	Type	DST311S	DST310S/DST410S
Frequency Range		32.768kHz	
Load Capacitance		9pF, 10pF, 12.5pF	
Drive Level		0.2μW (1.0μW max.)	
Frequency Tolerance		±20×10 ⁻⁶ , ±30×10 ⁻⁶ , ±50×10 ⁻⁶ , ±100×10 ⁻⁶ (at 25°C)	
Series Resistance		80kΩ max.	
Turnover Temperature		+25°C±5°C	
Parabolic Coefficient		-0.04×10 ⁻⁶ /°C ² max.	
Operating Temperature Range		-40 ~+85°C	
Storage Temperature Range		-40 ~+85°C	
Shunt Capacitance		0.9pF Typ.	1.3pF Typ.
Packing Unit		3000pcs./reel (φ180)	

Consult our sales representative for other specifications.

■ DST311S

■ Dimensions[mm]

■ Internal Connections

■ Recommended Land Pattern [mm]

<Top View>

#1 & #4 connected to quartz element
#2 & #3 connected to the cover

■ DST310S

■ Dimensions[mm]

■ Internal Connections

■ Recommended Land Pattern [mm]

<Top View>

■ DST410S

■ Dimensions[mm]

■ Internal Connections

■ Recommended Land Pattern [mm]

<Top View>