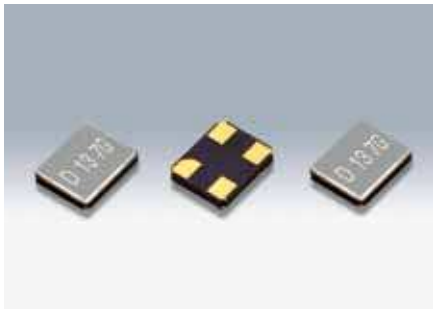


# SMD Crystal Resonators / MHz Band Crystal Resonators

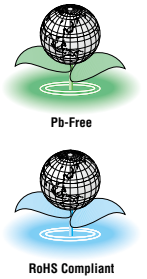
## DSX321SL



Actual size

### ■ Features

- 3225 size miniature and lightweight SMD crystal resonator with a low profile of 0.5mm.
- High precision and high reliability (Frequency aging specification of  $\pm 1 \times 10^{-6}$ /1 year or  $\pm 3 \times 10^{-6}$ /5 year are available for cell phone or wireless communications systems etc.)
- Offers a wide frequency range from a comparatively low 13MHz up to 60MHz.



### ■ Applications

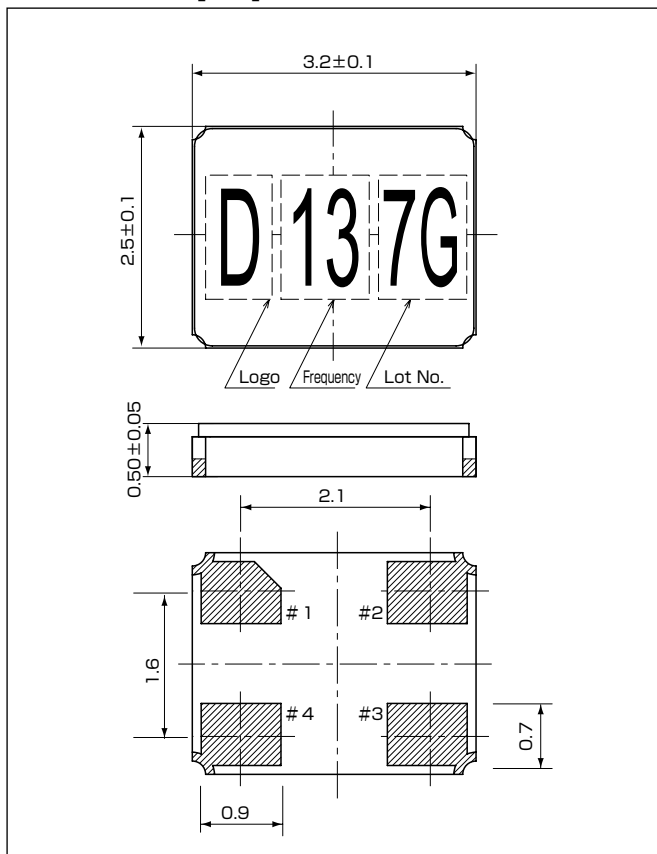
- Telecommunications products like short-range wireless modules and other small devices such as DVC, DSC, PDA, PC.

### ■ Standard Specification

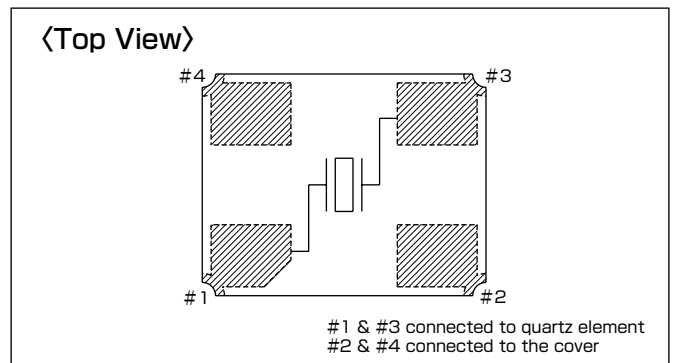
Item	Type	DSX321SL		
Frequency Range		13 ~ 20MHz	20 ~ 26MHz	26 ~ 60MHz
Overtone Order		Fundamental		
Load Capacitance		Series, 8pF, 10pF, 12pF		
Drive Level		10 $\mu$ W (200 $\mu$ W max.)		
Frequency Tolerance		$\pm 10 \times 10^{-6}$ , $\pm 20 \times 10^{-6}$ , $\pm 30 \times 10^{-6}$ , $\pm 50 \times 10^{-6}$ (at 25°C)		
Series Resistance		50 $\Omega$ max.	40 $\Omega$ max.	30 $\Omega$ max.
Frequency Characteristics over Temperature		$\pm 8 \times 10^{-6}$ , $\pm 20 \times 10^{-6}$ , $\pm 30 \times 10^{-6}$ , $\pm 50 \times 10^{-6}$ / -10 ~ +60°C (Ref. to 25°C)		
		$\pm 12 \times 10^{-6}$ , $\pm 20 \times 10^{-6}$ , $\pm 30 \times 10^{-6}$ , $\pm 50 \times 10^{-6}$ / -20 ~ +70°C (Ref. to 25°C)		
		$\pm 15 \times 10^{-6}$ , $\pm 20 \times 10^{-6}$ , $\pm 30 \times 10^{-6}$ , $\pm 50 \times 10^{-6}$ / -30 ~ +85°C (Ref. to 25°C)		
Storage Temperature Range		-40 ~ +85°C		
Packing Unit		3000pcs./reel ( $\phi$ 180)		
Standard Specification		Refer to page 33		

Consult our sales representative for other specifications.

### ■ Dimensions[mm]



### ■ Internal Connections



### ■ Recommended Land Pattern

[mm]

