

# SMD Crystal Resonators / MHz Band Crystal Resonators (For Automotive)

## DSX321G/DSX321GK/DSX320G/DSX320GE



### ■ Features

- Miniature and lightweight SMD crystal resonator height DSX321G (over 12MHz): 0.75mm (12MHz or under): 0.85mm DSX321GK: 0.85mm DSX320G (over 12MHz): 0.85mm (12MHz or under): 0.95mm DSX320GE: 0.95mm
- Excellent heat resistance, High precision and high reliability
- Offers a wide range of frequencies DSX321G/DSX320G/DSX320GE: 7.9 to 64MHz DSX321GK: 9.8 to 40MHz
- Enhanced durability of solder joint for thermal cycles : after 3000 thermal cycle tests "-40, +125°C" (DSX320G/DSX320GE)
- AEC-Q200 Compliant
- Fully lead free option available. (DSX321G)



### ■ Applications

- Multimedia devices such as car navigation systems and car audio, safety controls, TPMS, keyless entry (DSX321G/DSX321GK)
- ECU (engine, body work control), safety relations, car body controls, ABS, EPS (DSX320G/DSX320GE)

### ■ Standard Specification

| Item \ Type                                | DSX321G/DSX320G/DSX320GE                            |              |             |             |             |             |
|--------------------------------------------|-----------------------------------------------------|--------------|-------------|-------------|-------------|-------------|
|                                            |                                                     | DSX321GK     |             |             |             |             |
| Frequency Range                            | 7.9 to 9.8MHz                                       | 9.8 to 11MHz | 11 to 12MHz | 12 to 27MHz | 27 to 40MHz | 40 to 64MHz |
| Overtone Order                             | Fundamental                                         |              |             |             |             |             |
| Load Capacitance                           | 8pF, 10pF, 12pF                                     |              |             |             |             |             |
| Drive Level                                | 10μW (200μW max.)                                   |              |             |             |             |             |
| Frequency Tolerance                        | ±30×10 <sup>-6</sup> (at 25°C)                      |              |             |             |             |             |
| Series Resistance                          | 400Ω max.                                           | 200Ω max.    | 150Ω max.   | 120Ω max.   | 100Ω max.   |             |
| Frequency Characteristics over Temperature | ±100×10 <sup>-6</sup> /−40 to +125°C (Ref. to 25°C) |              |             |             |             |             |
| Storage Temperature Range                  | −40 to +150°C                                       |              |             |             |             |             |
| Reliability                                | AEC-Q200                                            |              |             |             |             |             |
| Packing Unit (1)                           | 3000pcs./reel (ø180)                                |              |             |             |             |             |

(1) Moisture prevention packing is unnecessary.  
Moisture Sensitivity Level: LEVEL1 (IPC/JEDEC J-STD-033)

Consult our sales representative for other specifications.

### ■ DSX321G/DSX321GK [mm]

### ■ DSX320G [mm]

### ■ DSX320GE [mm]

