



3.2x2.5mm for Automotive



**Features**

- Crystal unit for automotive electronics
- Improved solderability
- Improved mounting stability with 4 terminals
- Improved anti-noise performance with GND terminal
- Ceramic package
- Small and low profile
- Improved rust prevention performance
- Reflow compatible
- Highly reliable solder junction (3000 heat cycles -40 to +125°C)

**Applications**

- ECU
- TPMS
- High-Speed Automotive Network

**How to Order**

CX3225SA 12000 D0 G T V □□  
① ② ③ ④ ⑤ ⑥ ⑦

- ①Series
- ②Frequency
- ③Load Capacitance
- ④Frequency Tolerance
- ⑤Operating Temp. Range
- ⑥Frequency Temp. Stability
- ⑦Individual Specification

Packaging (Tape & Reel 3000 pcs./ reel)

**Specifications**

Item	Symbol	Specification	Unit	Remarks
Frequency Range	f <sub>nom</sub>	8 / 10 / 12 / 15 / 16 / 20 / 24 / 26 / 27 / 40	MHz	Please contact us for other frequency range.
Overtone Order	OT	Fundamental	—	
Load Capacitance	CL	8	pF	Please contact us for other CL requirements.
Frequency Tolerance	f <sub>tol</sub>	±15	×10 <sup>-6</sup>	25°C±3°C
Motional Series Resistance	R1	Table 1	ohm	
Drive Level	DL	10μW(200μW max.)	μW	
Operating Temp. Range	T <sub>use</sub>	-40 to +150	°C	
Storage Temp. Range	T <sub>stg</sub>	-40 to +150	°C	
Frequency Temp. Characteristics	f <sub>tem</sub>	±150	×10 <sup>-6</sup>	Freq. deviation from the value at 25°C

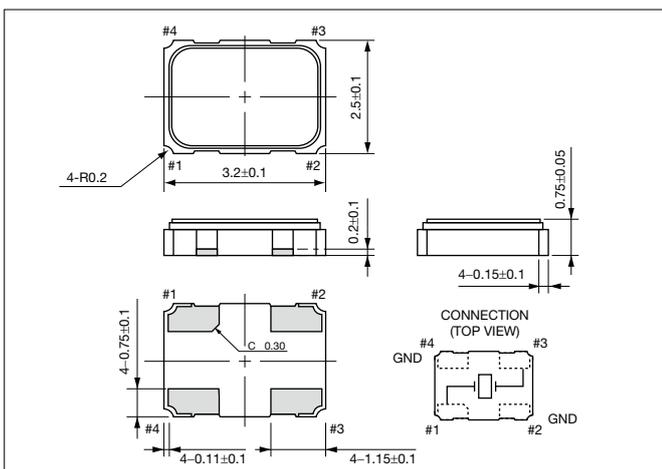
Please contact us for other specifications.

**Table 1 Motional Series Resistance** Please contact us for other frequency range.

Frequency	Motional Series Resistance
8MHz	500 Ω max.
12MHz	200 Ω max.
16MHz	60 Ω max.
20MHz	50 Ω max.

**Dimensions**

(Unit: mm)



**Recommended Land Pattern**

(Unit: mm)

