3.2×2.5mm   for Automotive

🚗 AEC-Q200   🌿 RoHS Compliant

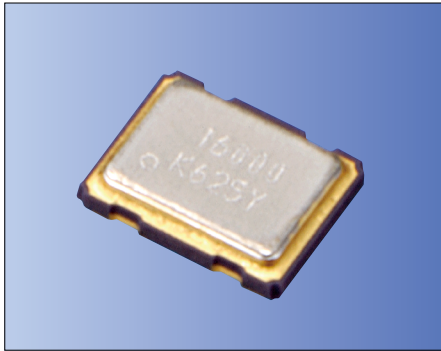## Features
- Crystal unit for automotive electronics
- Improved solderability
- Improved mounting stability with 4 terminals
- Improved anti-noise performance with GND terminal
- Ceramic package
- Small and low profile
- Improved rust prevention performance
- Reflow compatible
- Highly reliable solder 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

| D0 | 8 pF | | G | ±15×10^{-6} |

⑤Operating Temp. Range ⑥Frequency Temp. Stability

| TV | −40 to +150°C | ±150×10^{-6} |

⑦Individual Specification

Packaging (Tape & Reel 3000 pcs./ reel)

Specifications

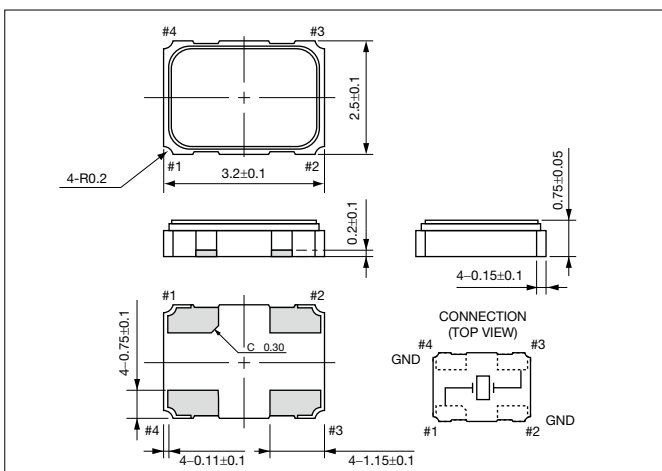| Item	Symbol	Specification	Unit	Remarks
Frequency Range	f_{nom}	8, 10, 12, 15, 16, 20, 24, 26, 27, 40	MHz	Please contact us for other frequency range.
Overtone Order	OT	Fundamental	—	
Load Capacitance	CL	8	pF	Please contact us for other CL requirements.
Frequency Tolerance	f_{tol}	±15	×10^{-6}	25°C±3°C
Motional Series Resistance	R1	Table 1	ohm	
Drive Level	DL	10μW(200μW max.)	μW	
Operating Temp. Range	T_{use}	−40 to +150	°C	
Storage Temp. Range	T_{stg}	−40 to +150	°C	
Frequency Temp. Characteristics	f_{tem}	±150	×10^{-6}	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)

As of December 2022