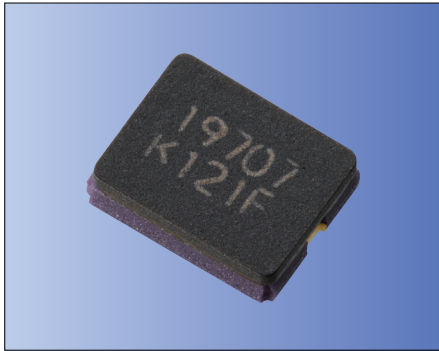




3.2 × 2.5mm for Automotive



AEC-Q200 RoHS Compliant
 PSL: R4Y MSL1

How to Order

CX3225GA 25000 D0 G S S CC
① ② ③④ ⑤ ⑥ ⑦ ⑧

- ① Series (Type and Size)
- ② Frequency (8,000 to 54,000kHz)
- ③④ Load Capacitance (Unit:pF) Ex.: D1:8.1pF

| ③ Integer part | | ④ After the decimal point | |
|----------------|----------------|---------------------------|----|
| D | 8 | 0 | .0 |
| E | 9 | 1 | .1 |
| F | 10 | 2 | .2 |
| G | 11 | 3 | .3 |
| H | 12 | 4 | .4 |
| Z | Special suffix | 5 | .5 |
| | | 6 | .6 |
| | | 7 | .7 |
| | | 8 | .8 |
| | | 9 | .9 |

Packaging
(Tape & Reel 3000 pcs./ reel)

⑤ Frequency Tolerance

| | |
|---|----------------------|
| H | ±20×10 ⁻⁶ |
| J | ±25×10 ⁻⁶ |
| K | ±30×10 ⁻⁶ |
| M | ±40×10 ⁻⁶ |
| P | ±50×10 ⁻⁶ |
| W | All Over |
| Z | Special suffix |

Features

- Crystal unit for automotive electronics
- Improved solderability
- Small and low profile (3.2 × 2.5 × 0.85mm)
- Ceramic package
- Reflow compatible
- Acceptable heat cycle solder junction for 3000 cycles (-40 to +125° C)

Applications

- ECU • TPMS
- High-Speed Automotive Network

Specifications

| Item | Symbol | Specification | Unit | Remarks |
|---------------------------------|------------------|------------------|--------------------|--|
| Frequency Range | f _{nom} | 8000 to 54000 | kHz | 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} | ±50 | ×10 ⁻⁶ | 25° C ± 3° C |
| Motional Series Resistance | R1 | Table 1 | ohm | |
| Drive Level | DL | 10μW(200μW max.) | μ W | |
| 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 |
| Shunt capacitance | C0 | 3.0max. | pF | |

Please contact us for other specifications.

⑥ Operating Temp. Range ⑦ Frequency Temp. Stability

*Frequency of 12,000 kHz or higher is supported. Please contact us for frequencies between 8,000 and 10,000 kHz.

| ⑥ | ⑦ | Q | R | S | T | V | W |
|---|--------------|--------|--------|--------|---------|---------|---------|
| | | ±30ppm | ±40ppm | ±50ppm | ±100ppm | ±150ppm | ±200ppm |
| L | -30 to 85°C | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| P | -40 to 85°C | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| R | -40 to 105°C | | ✓ | ✓ | ✓ | ✓ | ✓ |
| S | -40 to 125°C | | | ✓ | ✓ | ✓ | ✓ |
| T | -40 to 150°C | | | | ✓ | ✓ | ✓ |

⑧ Individual Specification (STD Specification is “CC” .)

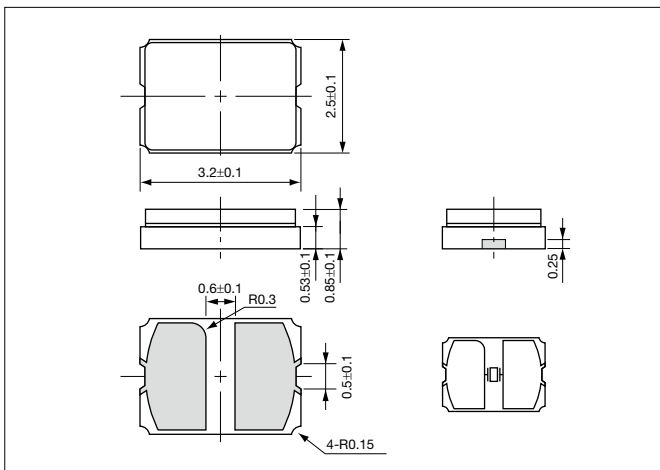
◆Table 1 Motional Series Resistance ESR (C1)

| Frequency (MHz) | ESR (Ohm) |
|-----------------|-----------|
| 8 ≤ F < 9.8 | 500 |
| 9.8 ≤ F < 14 | 200 |
| 14 ≤ F < 16 | 120 |
| 16 ≤ F ≤ 54 | 100 |

Crystal Units

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

