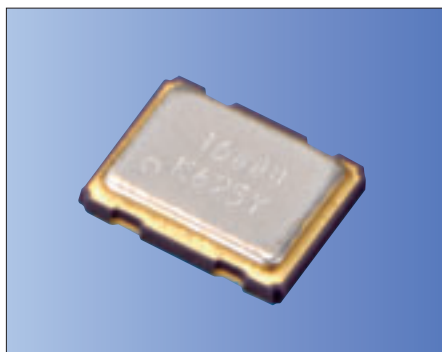


3.2×2.5mm for Automotive



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)
- AEC-Q200 qualified

Applications

- ECU
- TPMS
- High-Speed Automotive Network

How to Order

CX3225SA 12000 D0 P T V CC

① ② ③ ④ ⑤ ⑥ ⑦

- ① Series ② Frequency
③ Load Capacitance ④ Frequency Tolerance

D0 8 pF **P** $\pm 50 \times 10^{-6}$

⑤ Operating Temp. Range ⑥ Frequency Temp. Stability

TV -40 to +150°C $\pm 150 \times 10^{-6}$

⑦ Individual Specification
(STD Standard is "CC")

Packaging (Tape & Reel 3000 pcs./ reel)

Specifications

| Item | Symbol | Specification | Units | Remarks |
|---------------------------------|------------------|---------------|-------------------|---|
| Frequency Range | f _{nom} | 8000 to 54000 | kHz | |
| Overtone Order | OT | Fundamental | — | |
| Load Capacitance | CL | 8 | pF | Please contact us for other Load Capacitance. |
| Frequency Tolerance | f _{tol} | ±15 | ×10 ⁻⁶ | 25°C±3°C |
| Motional Series Resistance | R1 | Table 1 | ohm | |
| Drive Level | DL | Table 2 | 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.

Table1 Motional Series Resistance

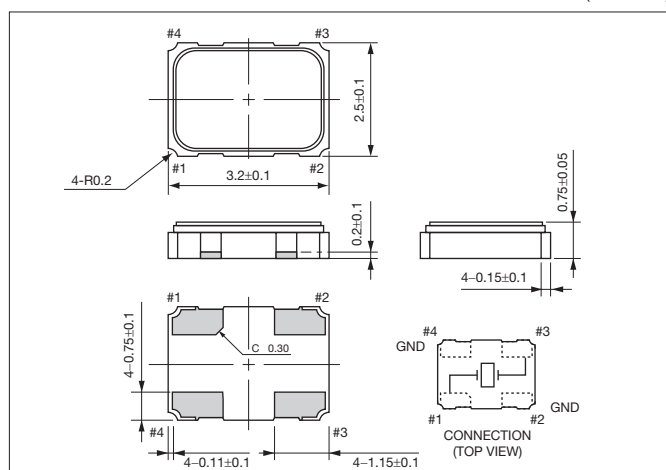
| Frequency Range | Motional Series Resistance |
|----------------------------------|----------------------------|
| 8000≤f _{nom} < 9800kHz | 500Ω max. |
| 9800≤f _{nom} <13560kHz | 200Ω max. |
| 13560≤f _{nom} <16000kHz | 100Ω max. |
| 16000≤f _{nom} <20000kHz | 60Ω max. |
| 20000≤f _{nom} ≤54000kHz | 50Ω max. |

Table2 Level of Drive

| Frequency Range | Level of Drive |
|---------------------------------|-------------------|
| 8000≤f _{nom} ≤54000kHz | 10μW (200μW max.) |

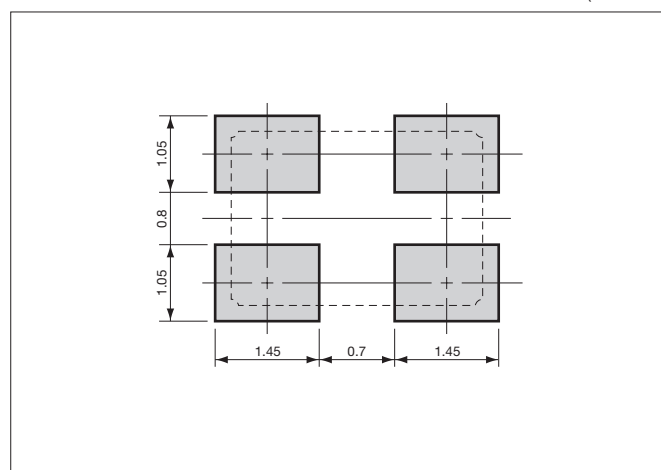
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



Mouser Electronics

Authorized Distributor

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[CX3225SA40000D0PTWCC](#)