

SURFACE MOUNT TYPE CRYSTAL UNITS / NX3225DA

This is small surface mount type crystal units suitable for automotive electronics. Recommended for the small-sizing requirement.

Features

- Ultra compact, thin and lightweight (3.2×2.5×0.6 mm typ., 17 mg typ.).
- This crystal unit is provided with superior environmental performance including heat resistance, vibration resistance, impact resistance, etc.
- Products are lead-free. These can meet the requirements of re-flow profiling using lead-free solder.
- RoHS compliant.



RoHS Compliant
Directive 2002/95/EC

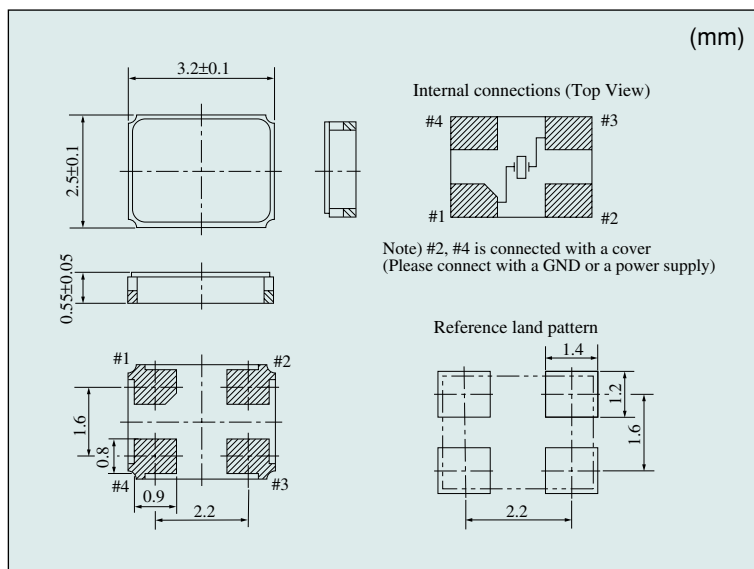
Specification

| Item | Type | NX3225DA |
|---|------|---|
| Frequency Range | | 12 ~ 40 MHz |
| Overtone | | Fundamental |
| Frequency Tolerance (25±3°C) | | ± 50 × 10 ⁻⁶ |
| Temperature Characteristics (in reference to +25°C) | | ± 150 × 10 ⁻⁶ |
| Operating Temperature Range | | -40 ~ +125°C |
| Equivalent Series Resistance | | 12 ~ 16 MHz : 300 Ω max, 16 ~ 30 MHz : 220 Ω max, 30 ~ 40 MHz : 150 Ω max |
| Drive Level | | 50 μW (200 μW max) |
| Standard Load Capacitance | | 8pF |
| Operable Temperature Range | | -40 ~ +150°C |

Typical Frequency (MHz)

| | | | | | | | | |
|-------------|------|-------|------|------|------|------|------|------|
| Fundamental | 12.0 | 13.56 | 15.0 | 16.0 | 18.0 | 20.0 | 24.0 | 40.0 |
|-------------|------|-------|------|------|------|------|------|------|

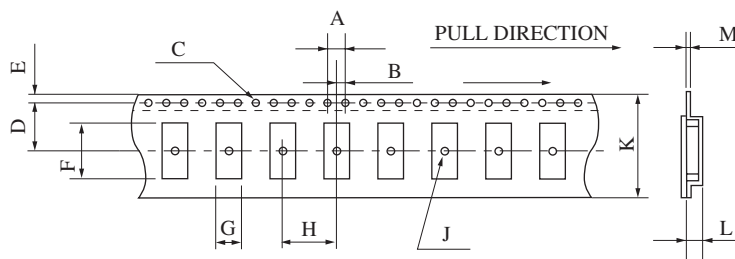
Dimensions



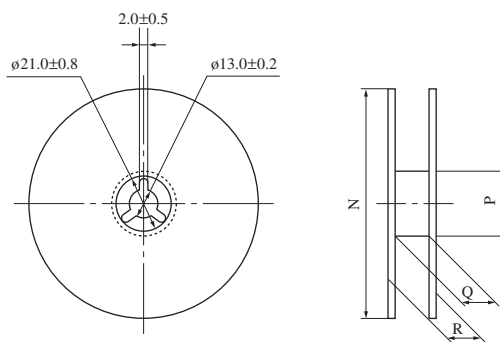
TAPING DIMENSIONS

Below taping package is standard for surface mount type crystal units.

■ Tape



■ Reel



| | NX1255GB/GC | NX8045GB/GD | NX6035SA | NX5032GA/GB/GC | NX5032SD | NX4025DA | NX3225SA/GA | NX2520SA | NX2016AA |
|----------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|
| A | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 |
| B | 2.0 ± 0.1 | 2.0 ± 0.1 | 2.0 ± 0.1 | 2.0 ± 0.1 | 2.0 ± 0.1 | 2.0 ± 0.1 | 2.0 ± 0.1 | 2.0 ± 0.1 | 2.0 ± 0.1 |
| C | ø 1.5 ^{+0.1} _{-0.1} | ø 1.5 ^{+0.1} _{-0.1} | ø 1.5 ^{+0.1} _{-0.1} | ø 1.5 ^{+0.1} _{-0.1} | ø 1.5 ^{+0.1} _{-0.1} | ø 1.5 ^{+0.1} _{-0.1} | ø 1.5 ^{+0.1} _{-0.1} | ø 1.5 ^{+0.1} _{-0.1} | ø 1.55 ± 0.05 |
| D | 11.5 ± 0.1 | 7.5 ± 0.1 | 7.5 ± 0.1 | 5.5 ± 0.1 | 5.5 ± 0.1 | 5.5 ± 0.1 | 3.5 ± 0.05 | 3.5 ± 0.05 | 3.5 ± 0.05 |
| E | 1.75 ± 0.1 | 1.75 ± 0.1 | 1.75 ± 0.1 | 1.75 ± 0.1 | 1.75 ± 0.1 | 1.75 ± 0.1 | 1.75 ± 0.1 | 1.75 ± 0.1 | 1.75 ± 0.1 |
| F | 12.2 ^{+0.3} _{-0.1} | 8.4 ± 0.1 | 6.55 ± 0.1 | 5.4 ± 0.1 | 5.4 ± 0.1 | 4.4 ± 0.1 | 3.5 ± 0.1 | 2.8 ± 0.1 | 2.25 ± 0.1 |
| G | 5.9 ^{+0.3} _{-0.1} | 4.8 ± 0.1 | 4.05 ± 0.1 | 3.5 ± 0.1 | 3.5 ± 0.1 | 2.9 ± 0.1 | 2.8 ± 0.1 | 2.3 ± 0.1 | 1.85 ± 0.1 |
| H | 12.0 ± 0.1 | 8.0 ± 0.1 | 8.0 ± 0.1 | 8.0 ± 0.1 | 8.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 | 4.0 ± 0.1 |
| J | ø 2.1 ± 0.1 | ø 1.5 ± 0.1 | ø 1.6 ± 0.1 | ø 1.5 ^{+0.1} _{-0.1} | ø 1.6 ± 0.1 | ø 1.5 ± 0.1 | ø 1.15 ± 0.1 | ø 1.05 ± 0.05 | ø 1.05 ± 0.05 |
| K | 24.0 ± 0.2 | 16.0 ± 0.2 | 16.0 ± 0.3 | 12.0 ± 0.2 | 12.0 ± 0.2 | 12.0 ± 0.2 | 8.0 ± 0.2 | 8.0 ± 0.2 | 8.0 ± 0.2 |
| L | 3.0 ± 0.1 (* 2.4 ± 0.1) | 2.0 ± 0.1 | 1.5 ± 0.1 | 1.4 ± 0.1 | 1.0 ± 0.1 | 0.8 ± 0.1 | 1.0 ± 0.1 | 0.75 ± 0.1 | 0.65 ± 0.1 |
| M | 0.3 ± 0.05 | 0.3 ± 0.05 | 0.3 ± 0.05 | 0.3 ± 0.05 | 0.25 ± 0.05 | 0.3 ± 0.05 | 0.25 ± 0.05 | 0.25 ± 0.05 | 0.25 ± 0.05 |
| N | ø 330 ± 2 | ø 330 ± 2 | ø 330 ± 2 | ø 180 ⁺⁰ ₋₃ | ø 330 ± 2 | ø 180 ⁺⁰ ₋₃ | ø 180 ⁺⁰ ₋₃ | ø 180 ⁺⁰ _{-1.5} | ø 180 ⁺⁰ _{-1.5} |
| P | ø 80 ± 1 | ø 100 ± 1 | ø 80 ± 1 | ø 60 ⁺¹ ₋₀ | ø 100 ± 1 | ø 60 ⁺¹ ₋₀ | ø 60 ⁺¹ ₋₀ | ø 60 ⁺¹ ₋₀ | ø 60 ⁺¹ ₋₀ |
| Q | 25.5 ± 0.5 | 17.5 ± 0.5 | 17.5 ± 0.5 | 13.0 ± 0.3 | 13.5 ± 0.5 | 13.0 ^{+0.3} ₋₀ | 9.0 ^{+0.3} ₋₀ | 9.0 ^{+0.3} ₋₀ | 9.0 ^{+0.3} ₋₀ |
| R | 30.5 max | 22.5 max | 22.5 max | 16.5 max | 18.5 max | 16.4 max | 12.4 max | 12.4 max | 12.4 max |
| Quantity | 1000 | 1000 | 2000 | 1000 | 5000 | 3000 | 3000 | 3000 | 3000 |

* NX1255GC