## CRYSTAL UNITS

## CRYSTAL UNITS FOR AUTOMOTIVE ELECTRONICS (NX1255GA/CP12A)

These surface mount crystal units are ideally suited for clock signal generating sources for CPUs for power trains and safety control devices requiring extremely high reliability as an electronic part used in a car.

## - Features

- This crystal unit exhibit stabilized startup characteristic even under extremely severe environmental conditions.
- This crystal unit is provided with superior environmental performance including heat resistance, vibration resistance, impact resistance, etc.
- This crystal unit can meet requirements starting from a low frequency 3.5 MHz .
- These products can meet the requirements of re-flow profiling using lead-free solder.


## Specification

| Item Type | NX1255GA (CP12A) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Frequency Range | $3.5 \mathrm{MHz} \sim 4 \mathrm{MHz}$ | 4 MHz ~ 8 MHz | $8 \mathrm{MHz} \sim 12 \mathrm{MHz}$ | $12 \mathrm{MHz} \sim 25 \mathrm{MHz}$ |
| Overtone | Fundamental |  |  |  |
| Frequency Tolerance ( $25 \pm 3^{\circ} \mathrm{C}$ ) | $\pm 100 \times 10^{-6}$ |  |  |  |
| Temperature Characteristics (in reference to $+25^{\circ} \mathrm{C}$ ) | $\pm 150 \times 10^{-6}$ |  |  |  |
| Operating Temperature Range | $-40 \sim+125^{\circ} \mathrm{C}$ |  |  |  |
| Equivalent Series Resistance | $200 \Omega$ max | $180 \Omega$ max | $120 \Omega$ max | $80 \Omega$ max |
| Drive Level | $100 \mu \mathrm{~W}(500 \mu \mathrm{~W}$ max) |  |  |  |
| Standard Load Capacitance | 12pF |  |  |  |
| Operable Temperature Range | $-40 \sim+150^{\circ} \mathrm{C}$ |  |  |  |

Typical Frequency (MHz)

| Fundamental | 4.0 | 5.0 | 8.0 | 12.0 | 16.0 | 20.0 |
| :--- | :--- | :--- | ---: | ---: | ---: | :--- |
|  | 4.5 | 6.0 | 10.0 | 15.0 | 18.0 | 24.0 |

## Dimensions



