

# SMD Power Inductor CR32



## Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 4.1 × 3.8 × 3.0 mm Max.
- Product weight: 85mg(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Environmental Data

- Operating temperature range: -40°C ~ +100°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +100°C
- Solder reflow temperature: 260 °C peak.

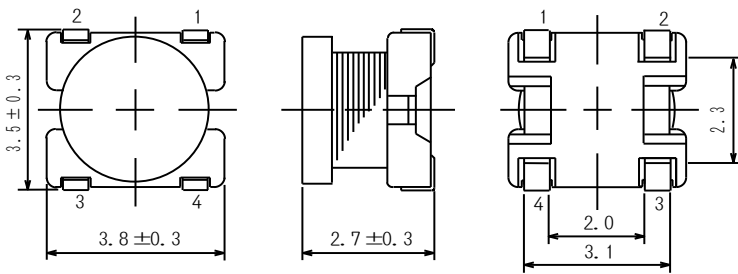
## Packaging

- Carrier tape and reel packaging
- 12" diameter reel
- 2000pcs per reel

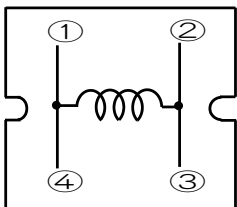
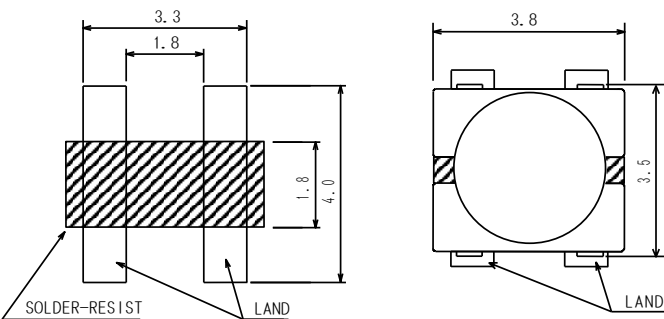
## Applications

- Ideally used in A/V equipment, LCD TV, DSC/DVC, Game Machine, DVC, HDD, Notebook PC, etc as DC-DC converter inductors.

## Dimension - [mm]



## Land pattern and Schematics - [mm]





## Electrical Characteristics

| Part Name    | Stamp    | Inductance<br>( $\mu\text{H}$ )<br>[ within ] $\times 1$ | D.C.R. (m $\Omega$ )<br>[ Max. ]<br>at 20°C | Rated Current<br>(mA) $\times 2$ |
|--------------|----------|--|---|----------------------------------|
| CR32NP-1R0MC | <u>A</u> | 1.0 $\pm$ 20%  | 72  | 2100                             |
| CR32NP-1R2MC | <u>B</u> | 1.2 $\pm$ 20%  | 78  | 1700                             |
| CR32NP-1R5MC | <u>C</u> | 1.5 $\pm$ 20%  | 85  | 1500                             |
| CR32NP-1R8MC | <u>D</u> | 1.8 $\pm$ 20%  | 91  | 1320                             |
| CR32NP-2R2MC | <u>E</u> | 2.2 $\pm$ 20%  | 104   | 1280                             |
| CR32NP-2R7MC | <u>F</u> | 2.7 $\pm$ 20%  | 111   | 1240                             |
| CR32NP-3R3MC | <u>G</u> | 3.3 $\pm$ 20%  | 137   | 1180                             |
| CR32NP-3R9MC | <u>H</u> | 3.9 $\pm$ 20%  | 143   | 1150                             |
| CR32NP-4R7MC | <u>J</u> | 4.7 $\pm$ 20%  | 170   | 1040                             |
| CR32NP-5R6MC | <u>K</u> | 5.6 $\pm$ 20%  | 176   | 1000                             |
| CR32NP-6R8MC | <u>L</u> | 6.8 $\pm$ 20%  | 202   | 880                              |
| CR32NP-7R4MC | <u>M</u> | 7.4 $\pm$ 20%  | 215   | 840                              |
| CR32NP-8R2MC | <u>N</u> | 8.2 $\pm$ 20%  | 228   | 780                              |
| CR32NP-100KC | A        | 10 $\pm$ 10%   | 230   | 760                              |
| CR32NP-120KC | B        | 12 $\pm$ 10%   | 270   | 685                              |
| CR32NP-150KC | C        | 15 $\pm$ 10%   | 310   | 635                              |
| CR32NP-180KC | D        | 18 $\pm$ 10%   | 410   | 525                              |
| CR32NP-220KC | E        | 22 $\pm$ 10%   | 470   | 500                              |
| CR32NP-270KC | F        | 27 $\pm$ 10%   | 660   | 405                              |
| CR32NP-330KC | G        | 33 $\pm$ 10%   | 760   | 380                              |
| CR32NP-390KC | H        | 39 $\pm$ 10%   | 850   | 355                              |
| CR32NP-470KC | J        | 47 $\pm$ 10%   | 970   | 330                              |
| CR32NP-560KC | K        | 56 $\pm$ 10%   | 1250  | 290                              |
| CR32NP-680KC | L        | 68 $\pm$ 10%   | 1450  | 275                              |
| CR32NP-820KC | M        | 82 $\pm$ 10%   | 1850  | 235                              |
| CR32NP-101KC | N        | 100 $\pm$ 10%  | 2200  | 220                              |
| CR32NP-121KC | P        | 120 $\pm$ 10%  | 2900  | 185                              |
| CR32NP-151KC | Q        | 150 $\pm$ 10%  | 3400  | 170                              |
| CR32NP-181KC | R        | 180 $\pm$ 10%  | 3900  | 165                              |
| CR32NP-221KC | S        | 220 $\pm$ 10%  | 4500  | 155                              |
| CR32NP-271KC | T        | 270 $\pm$ 10%  | 6000  | 135                              |
| CR32NP-331KC | U        | 330 $\pm$ 10%  | 7000  | 125                              |
| CR32NP-391KC | V        | 390 $\pm$ 10%  | 7800  | 115                              |

※1. Inductance measuring frequency: 1.0 $\mu\text{H}$  ~ 8.2 $\mu\text{H}$  ; at 7.96 MHz  
10 $\mu\text{H}$  ~ 390 $\mu\text{H}$  ; at 100 kHz

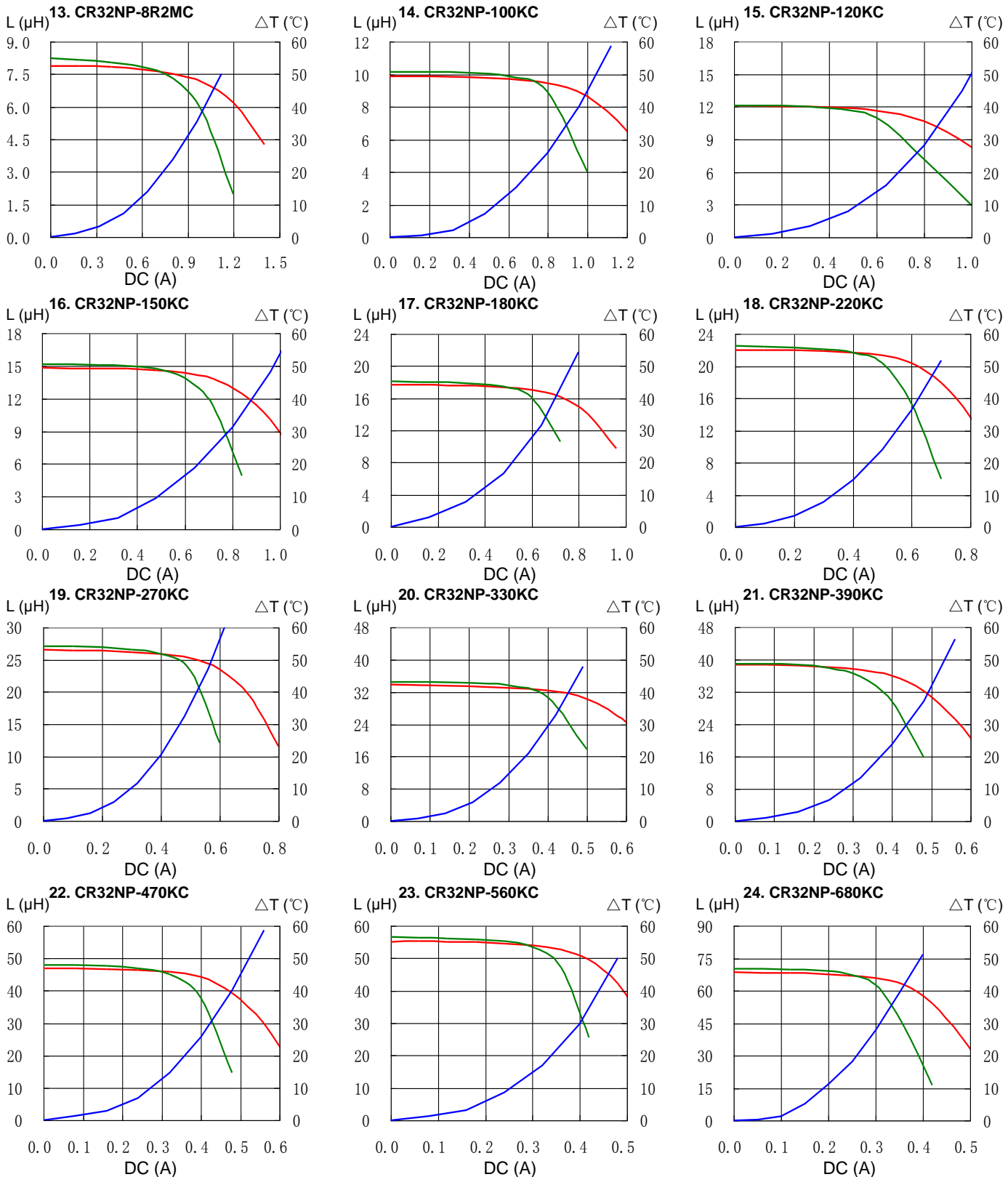
※2. Rated current: The D.C. current at which the inductance decreases to 90% of its initial value or when  $\Delta t=40^\circ\text{C}$ , whichever is lower ( $T_a=20^\circ\text{C}$ ).





## Saturation Current & Temperature Rise Graph

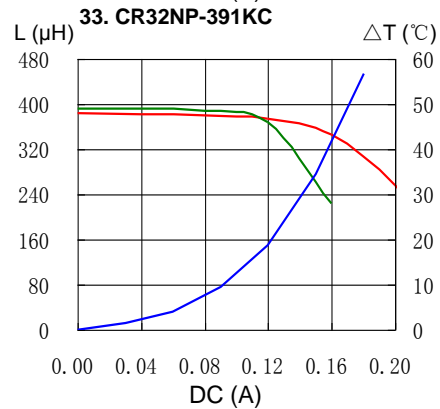
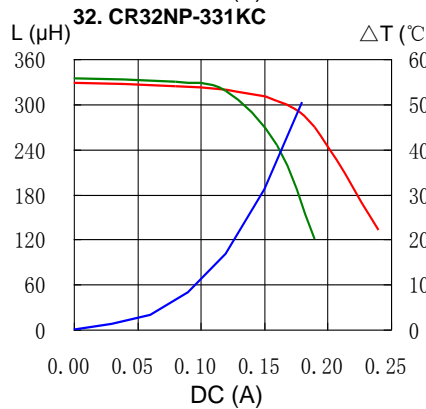
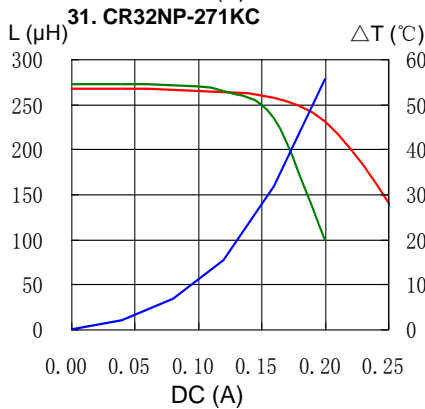
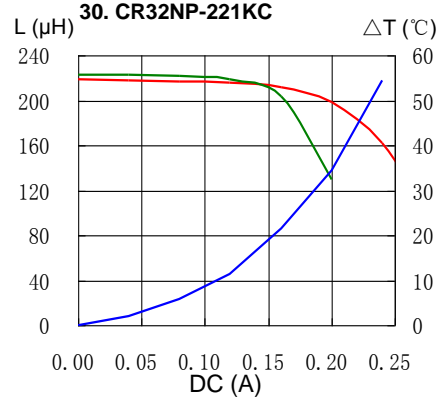
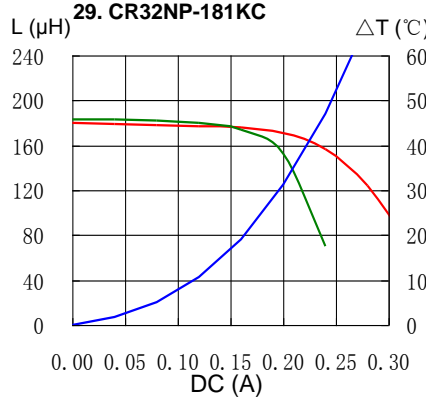
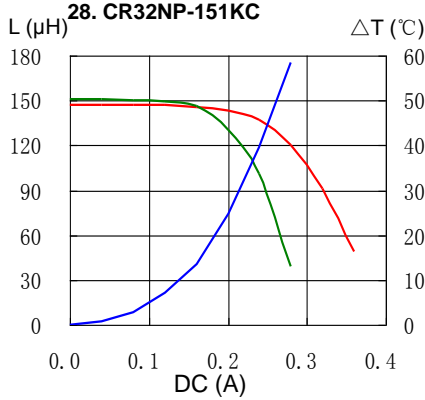
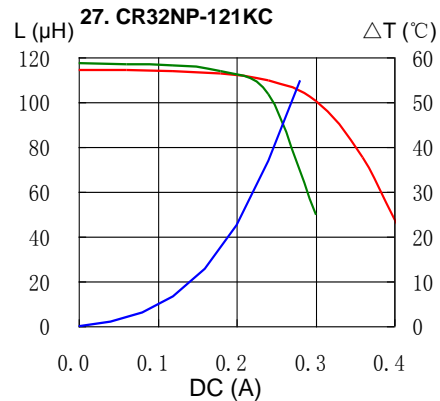
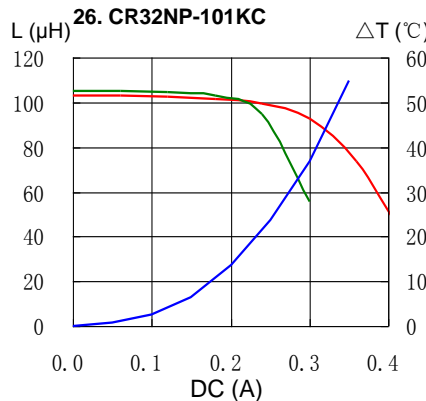
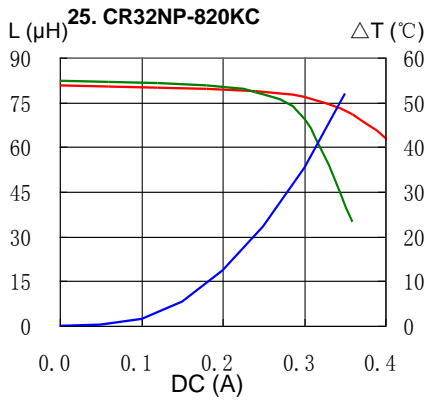
— L (20°C) — L (100°C) —  $\Delta T$



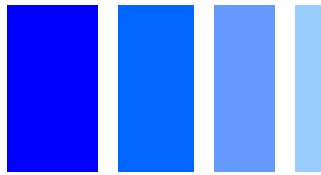


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

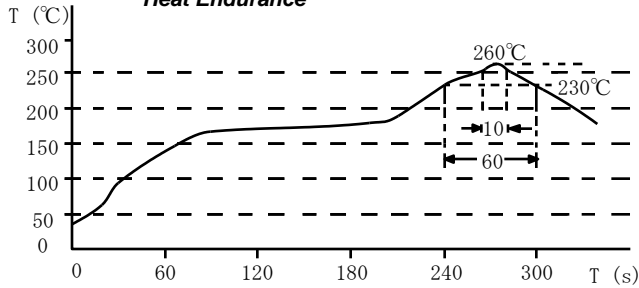


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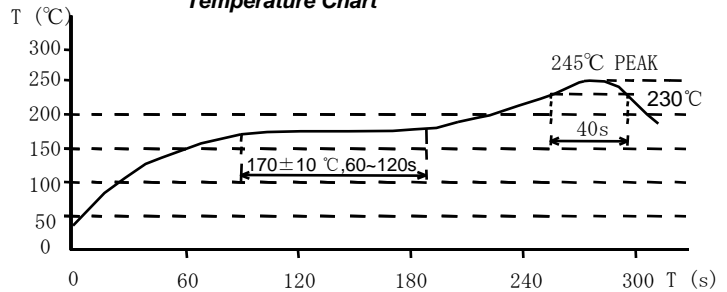


## Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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