

# SMD Power Inductor CDRH6D28



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 7.0 × 7.0 × 3.0 mm Max.
- Product weight: 0.44g(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.

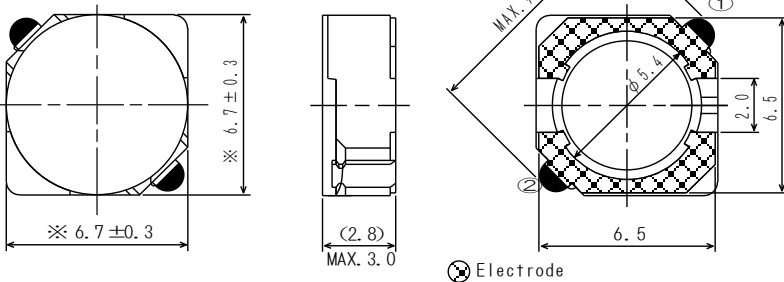
## Packaging

- Carrier tape and reel packaging
- 13" diameter reel
- 1500pcs per reel

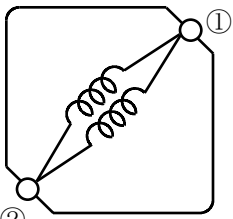
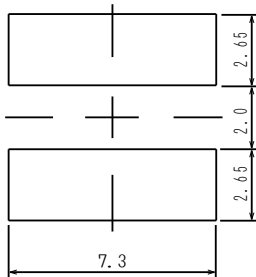
## Applications

- Ideally used in MP3, PDA, HDD, DSC/DVC, Notebook PC etc as DC-DC converter inductors.

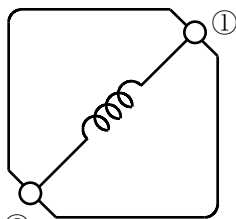
## Dimension - [mm]



## Land pattern and Schematics - [mm]



(3.0μH ~ 6.0μH)



(7.3μH ~ 100μH)

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## CDRH6D28



### Electrical Characteristics

| Part Name        | Stamp | Inductance<br>( $\mu\text{H}$ )<br>[within] ※1 | D.C.R.( $\Omega$ )<br>Max. (Typ.)<br>(at 20°C) | Rated Current<br>(A) ※2 |
|------------------|-------|--|--|-------------------------|
| CDRH6D28NP-3R0NC | 3R0   | 3.0 $\pm$ 30%                                  | 24m (18m)                                      | 3.00                    |
| CDRH6D28NP-3R9NC | 3R9   | 3.9 $\pm$ 30%                                  | 27m (20m)                                      | 2.60                    |
| CDRH6D28NP-5R0NC | 5R0   | 5.0 $\pm$ 30%                                  | 31m (23m)                                      | 2.40                    |
| CDRH6D28NP-6R0NC | 6R0   | 6.0 $\pm$ 30%                                  | 35m (26m)                                      | 2.25                    |
| CDRH6D28NP-7R3NC | 7R3   | 7.3 $\pm$ 30%                                  | 54m (40m)                                      | 2.10                    |
| CDRH6D28NP-8R6NC | 8R6   | 8.6 $\pm$ 30%                                  | 58m (43m)                                      | 1.85                    |
| CDRH6D28NP-100NC | 100   | 10 $\pm$ 30%                                   | 65m (48m)                                      | 1.70                    |
| CDRH6D28NP-120NC | 120   | 12 $\pm$ 30%                                   | 70m (52m)                                      | 1.55                    |
| CDRH6D28NP-150NC | 150   | 15 $\pm$ 30%                                   | 84m (62m)                                      | 1.40                    |
| CDRH6D28NP-180NC | 180   | 18 $\pm$ 30%                                   | 95m (70m)                                      | 1.32                    |
| CDRH6D28NP-220NC | 220   | 22 $\pm$ 30%                                   | 128m (95m)                                     | 1.20                    |
| CDRH6D28NP-270NC | 270   | 27 $\pm$ 30%                                   | 142m(105m)                                     | 1.05                    |
| CDRH6D28NP-330NC | 330   | 33 $\pm$ 30%                                   | 165m(122m)                                     | 0.97                    |
| CDRH6D28NP-390NC | 390   | 39 $\pm$ 30%                                   | 210m(156m)                                     | 0.86                    |
| CDRH6D28NP-470NC | 470   | 47 $\pm$ 30%                                   | 238m(176m)                                     | 0.80                    |
| CDRH6D28NP-560NC | 560   | 56 $\pm$ 30%                                   | 277m(205m)                                     | 0.73                    |
| CDRH6D28NP-680NC | 680   | 68 $\pm$ 30%                                   | 304m(225m)                                     | 0.65                    |
| CDRH6D28NP-820NC | 820   | 82 $\pm$ 30%                                   | 390m(290m)                                     | 0.60                    |
| CDRH6D28NP-101NC | 101   | 100 $\pm$ 30%                                  | 535m(397m)                                     | 0.54                    |

※1. Inductance measuring condition: at 100kHz.

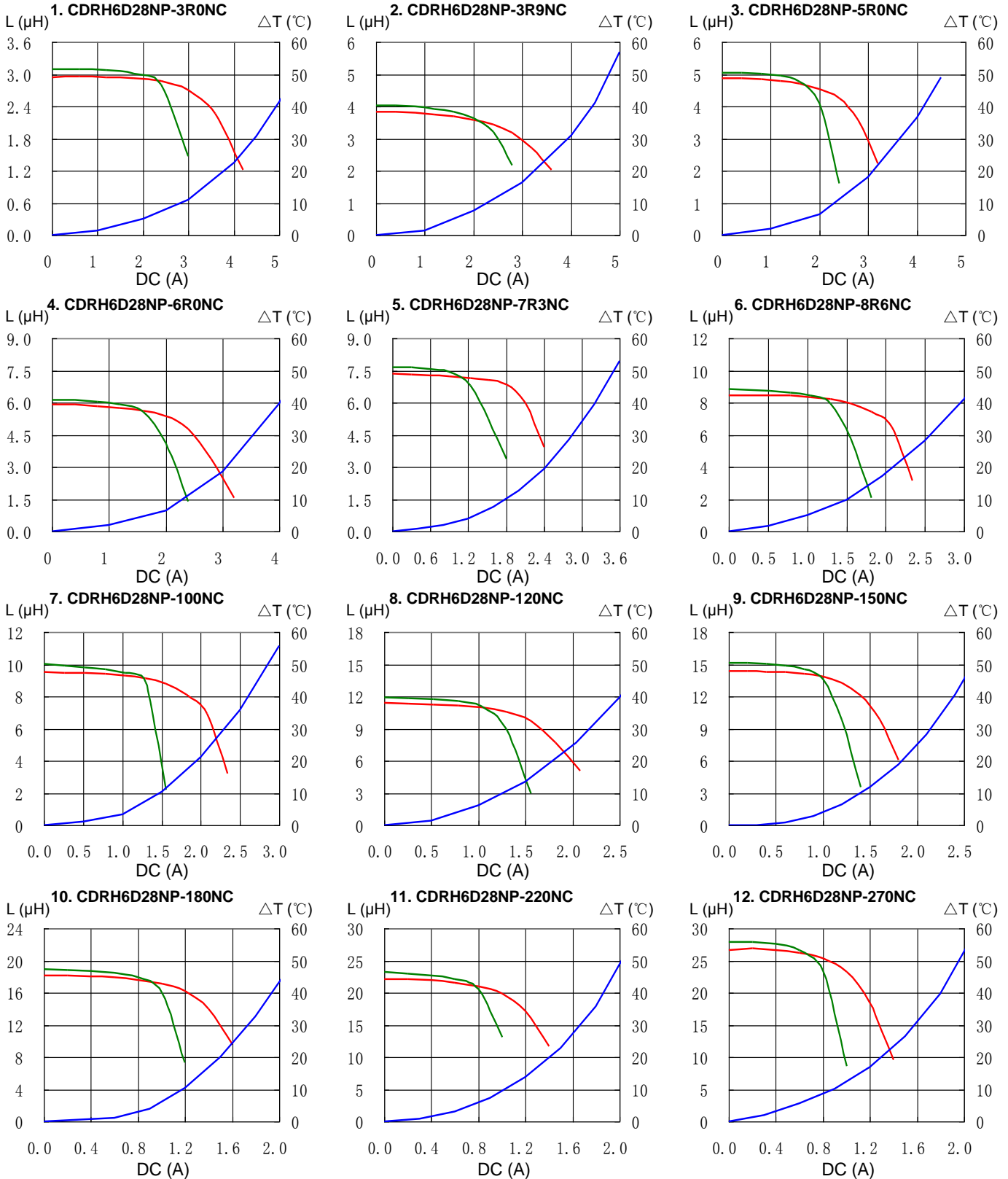
※2. Rated current: The DC current at which the inductance decreases to 65% of its nominal value or when  $\Delta t=30^\circ\text{C}$ , whichever is lower ( $T_a=20^\circ\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

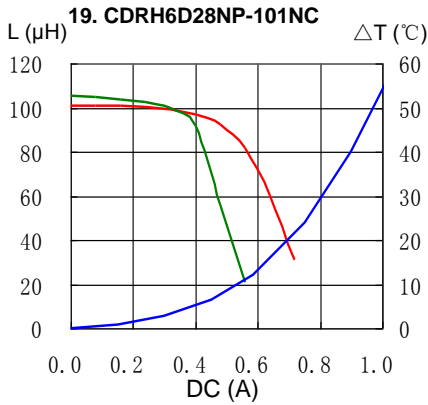
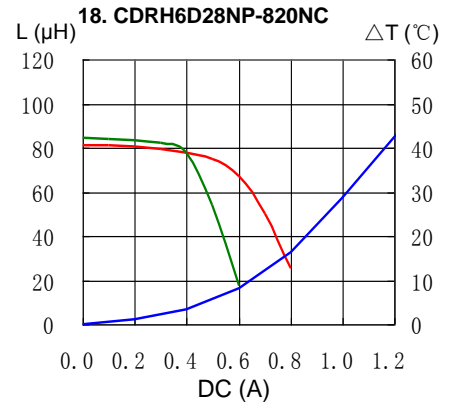
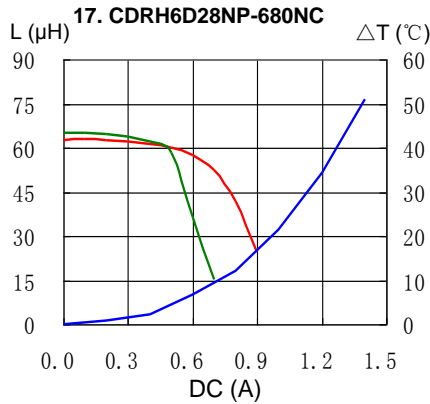
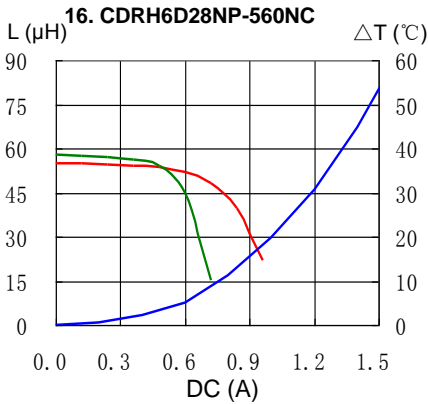
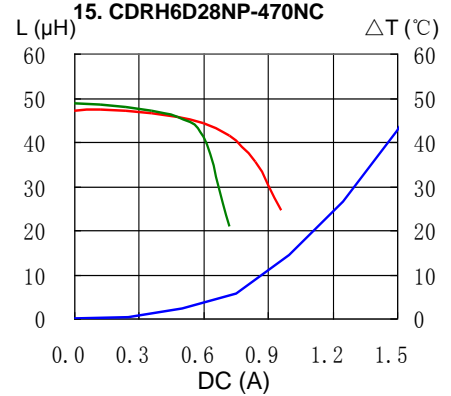
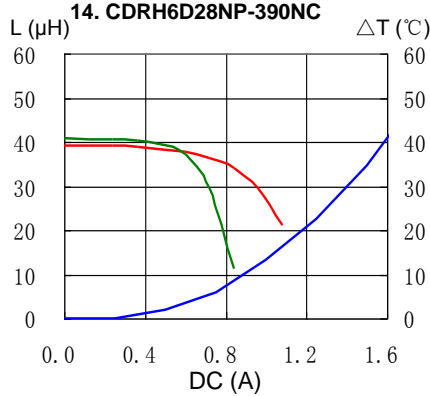
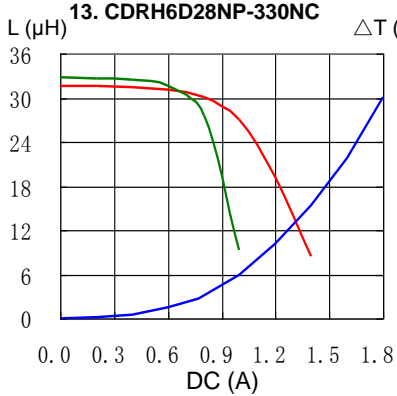


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— L (20°C) — L (105°C) —  $\Delta T$

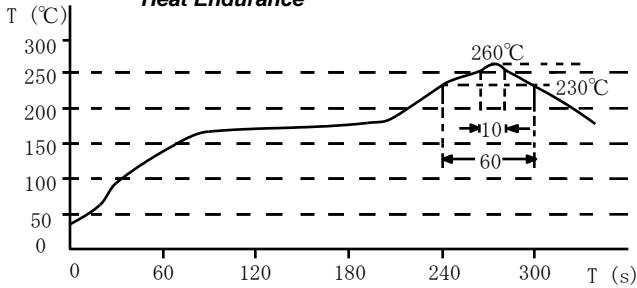


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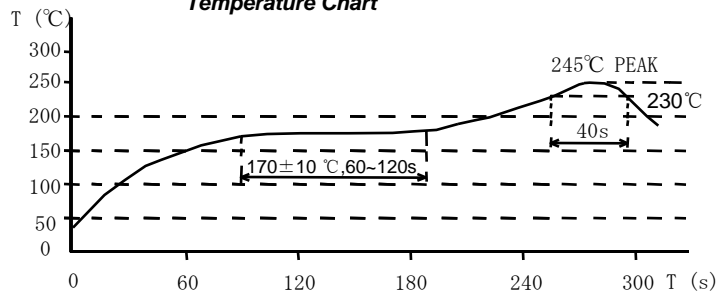


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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