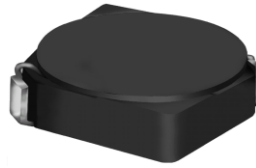


# SMD Power Inductor CDRH4D18



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 5.0 × 5.0 × 2.0 mm Max.
- Product weight: 137mg(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.

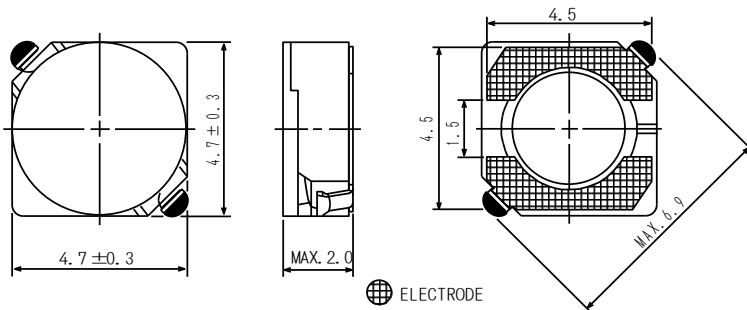
## Packaging

- Carrier tape and reel packaging
- 7.0" diameter reel
- 1000pcs per reel

## Applications

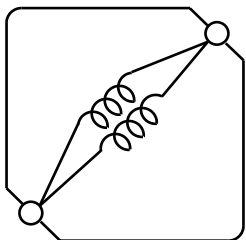
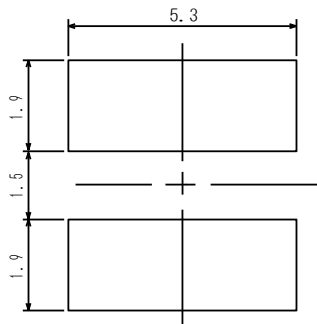
- Ideally used in Mobile phone, PDA, MP3, HDD, DSC/DVC, Note book PC, etc as DC-DC converter inductors.

## Dimension - [mm]

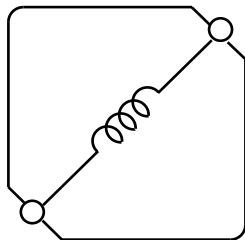


ELECTRODE

## Land pattern and Schematics - [mm]



(1.0μH~8.2μH)



(10μH~180μH)

# SMD Power Inductor

## CDRH4D18



### Electrical Characteristics

| Part No.         | 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 |
|------------------|-------|--|--|-------------------------|
| CDRH4D18NP-1R0NC | 1R0   | 1.0 $\pm$ 30%                                    | 45m(35m)                                       | 1.72                    |
| CDRH4D18NP-2R2NC | 2R2   | 2.2 $\pm$ 30%                                    | 75m(58m)                                       | 1.32                    |
| CDRH4D18NP-2R7NC | 2R7   | 2.7 $\pm$ 30%                                    | 105m(80m)                                      | 1.28                    |
| CDRH4D18NP-3R3NC | 3R3   | 3.3 $\pm$ 30%                                    | 110m(85m)                                      | 1.04                    |
| CDRH4D18NP-3R9NC | 3R9   | 3.9 $\pm$ 30%                                    | 155m(120m)                                     | 0.88                    |
| CDRH4D18NP-4R7NC | 4R7   | 4.7 $\pm$ 30%                                    | 162m(125m)                                     | 0.84                    |
| CDRH4D18NP-5R6NC | 5R6   | 5.6 $\pm$ 30%                                    | 170m(130m)                                     | 0.80                    |
| CDRH4D18NP-6R8NC | 6R8   | 6.8 $\pm$ 30%                                    | 200m(155m)                                     | 0.76                    |
| CDRH4D18NP-8R2NC | 8R2   | 8.2 $\pm$ 30%                                    | 245m(190m)                                     | 0.68                    |
| CDRH4D18NP-100NC | 100   | 10 $\pm$ 30%                                     | 200m(148m)                                     | 0.61                    |
| CDRH4D18NP-120NC | 120   | 12 $\pm$ 30%                                     | 210m(156m)                                     | 0.56                    |
| CDRH4D18NP-150NC | 150   | 15 $\pm$ 30%                                     | 240m(178m)                                     | 0.50                    |
| CDRH4D18NP-180NC | 180   | 18 $\pm$ 30%                                     | 338m(250m)                                     | 0.48                    |
| CDRH4D18NP-220NC | 220   | 22 $\pm$ 30%                                     | 397m(294m)                                     | 0.41                    |
| CDRH4D18NP-270NC | 270   | 27 $\pm$ 30%                                     | 441m(327m)                                     | 0.35                    |
| CDRH4D18NP-330NC | 330   | 33 $\pm$ 30%                                     | 694m(514m)                                     | 0.32                    |
| CDRH4D18NP-390NC | 390   | 39 $\pm$ 30%                                     | 709m(525m)                                     | 0.30                    |
| CDRH4D18NP-470NC | 470   | 47 $\pm$ 30%                                     | 922m(683m)                                     | 0.28                    |
| CDRH4D18NP-560NC | 560   | 56 $\pm$ 30%                                     | 1.08(800m)                                     | 0.26                    |
| CDRH4D18NP-680NC | 680   | 68 $\pm$ 30%                                     | 1.30(1.00)                                     | 0.24                    |
| CDRH4D18NP-820NC | 820   | 82 $\pm$ 30%                                     | 1.56(1.20)                                     | 0.22                    |
| CDRH4D18NP-101NC | 101   | 100 $\pm$ 30%                                    | 1.73(1.33)                                     | 0.20                    |
| CDRH4D18NP-121NC | 121   | 120 $\pm$ 30%                                    | 2.39(1.84)                                     | 0.18                    |
| CDRH4D18NP-151NC | 151   | 150 $\pm$ 30%                                    | 2.67(2.05)                                     | 0.15                    |
| CDRH4D18NP-181NC | 181   | 180 $\pm$ 30%                                    | 4.00(3.05)                                     | 0.14                    |

※1. Inductance measuring condition: 1.0 $\mu\text{H}$  ~ 8.2 $\mu\text{H}$  at 7.96 MHz  
 10 $\mu\text{H}$  ~ 180 $\mu\text{H}$  at 100 kHz

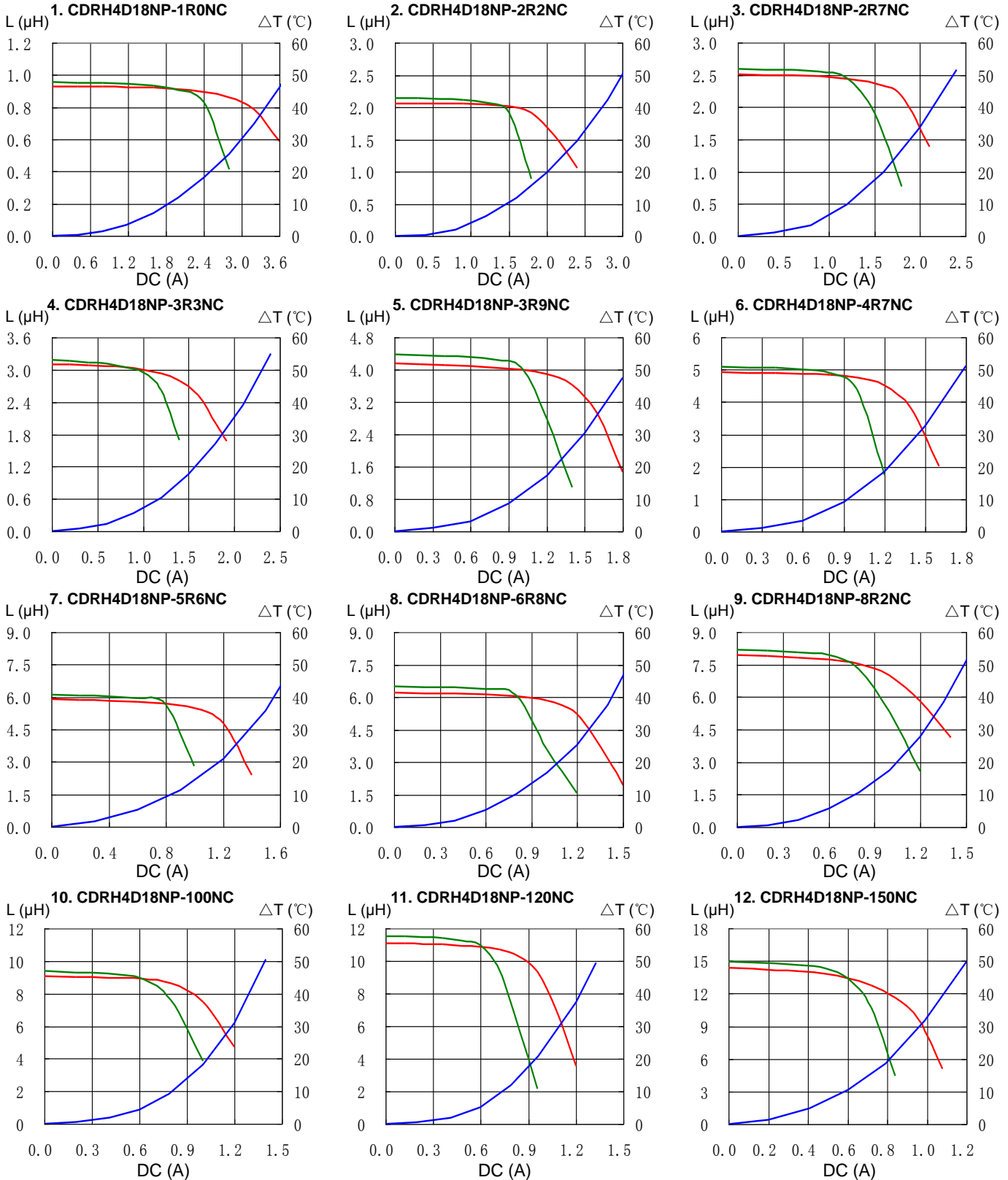
※2. Rated current: The DC current at which the inductance decreases to 65% of its nominal value or when  $\Delta t=40^\circ\text{C}$ , whichever is lower ( $T_a=20^\circ\text{C}$ ).

# SMD Power Inductor CDRH4D18



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

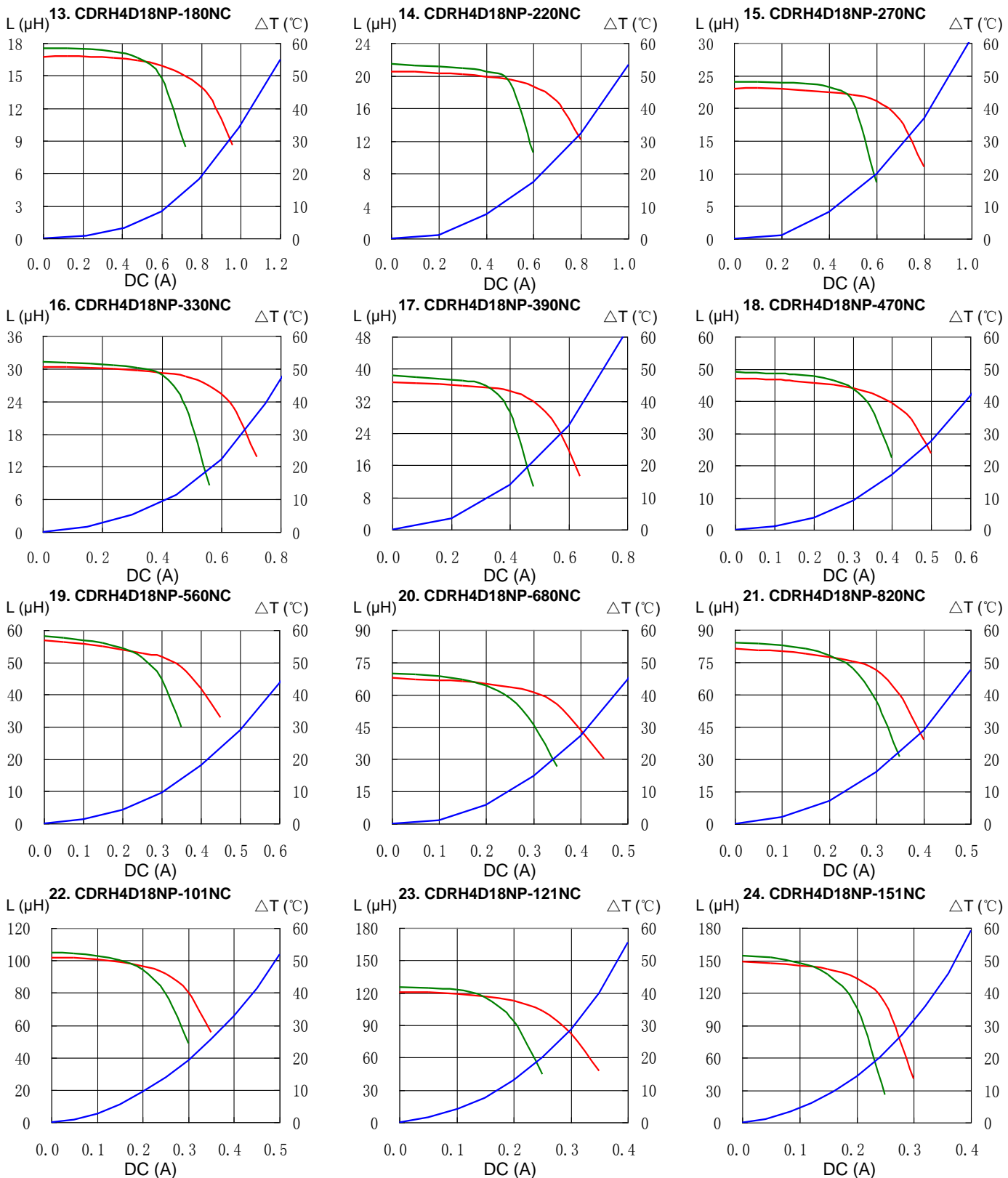


# SMD Power Inductor CDRH4D18



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

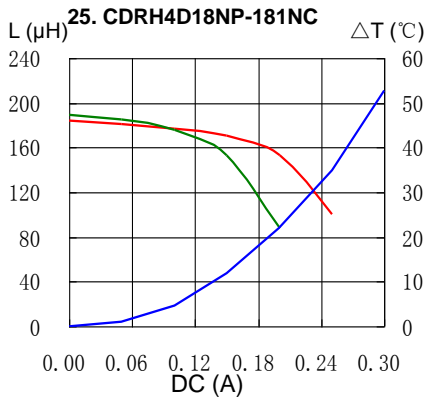


# SMD Power Inductor CDRH4D18



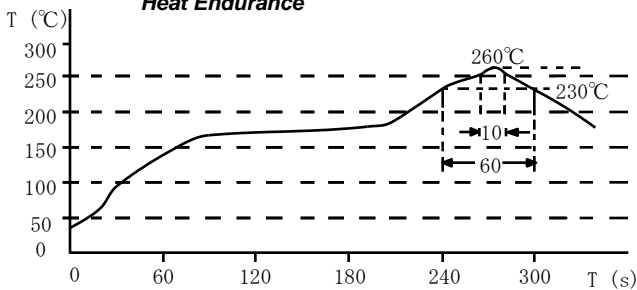
## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

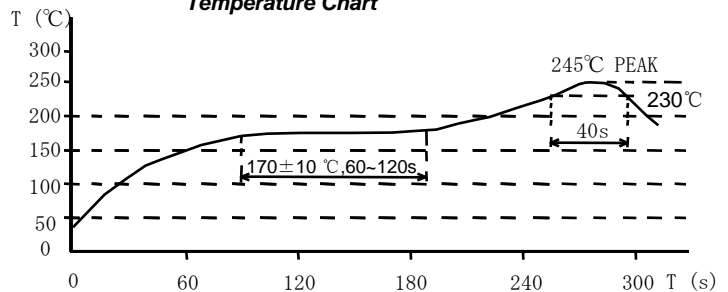


## Solder Reflow Condition

Heat Endurance



Temperature Chart



Please refer to the sales offices on our website - <http://www.sumida.com>

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