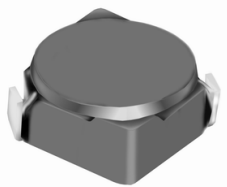


# SMD Power Inductor CDRH4D22



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 5.0 × 5.0 × 2.4 mm Max.
- Product weight: 0.2g(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.

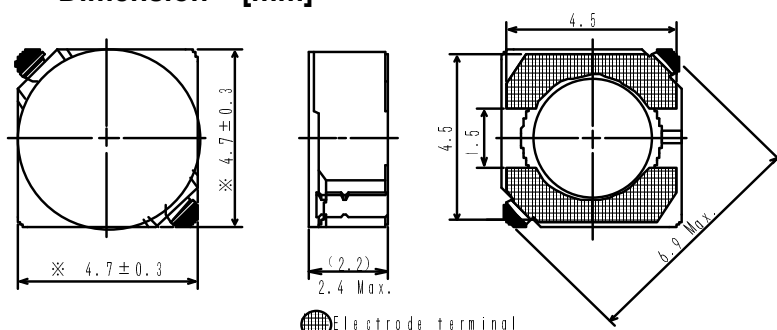
## Packaging

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

## Applications

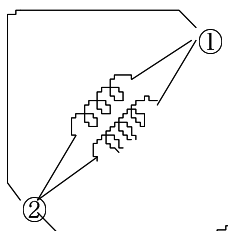
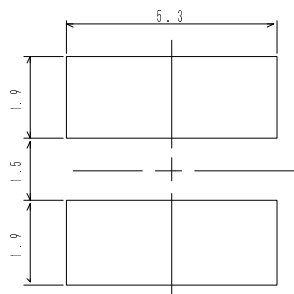
- Ideally used in Mobile phone, PDA, MP3, HDD, DSC/DVC, Portable Computers, etc as DC-DC converter inductors.

## Dimension - [mm]

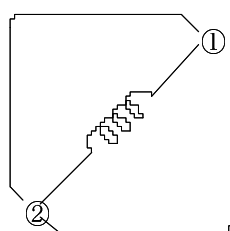


Electrode terminal

## Land pattern and Schematics - [mm]



(1.5 μH ~ 8.2 μH)



(10 μH ~ 150 μH)

# SMD Power Inductor CDRH4D22



## Electrical Characteristics

| Part Name        | Stamp | Inductance<br>( $\mu$ H)<br>[within] ※1 | D.C.R. (m $\Omega$ )<br>Max. (Typ.)<br>(at 20°C) | Saturation Current<br>(A) ※2 |          | Temperature<br>Rise Current<br>(A) ※3 |
|------------------|-------|-----------------------------------------|--------------------------------------------------|------------------------------|----------|---------------------------------------|
|                  |       |                                         |                                                  | at 20°C                      | at 100°C |                                       |
| CDRH4D22NP-1R5NC | 1R5   | 1.5 $\pm$ 30%                           | 18.3(14.1)                                       | 2.00                         | 1.60     | 4.20                                  |
| CDRH4D22NP-1R8NC | 1R8   | 1.8 $\pm$ 30%                           | 21.6(16.6)                                       | 1.90                         | 1.50     | 3.70                                  |
| CDRH4D22NP-2R3NC | 2R3   | 2.3 $\pm$ 30%                           | 25.4(19.5)                                       | 1.80                         | 1.40     | 3.60                                  |
| CDRH4D22NP-3R3NC | 3R3   | 3.3 $\pm$ 30%                           | 35.1(27.0)                                       | 1.40                         | 1.10     | 3.07                                  |
| CDRH4D22NP-3R9NC | 3R9   | 3.9 $\pm$ 30%                           | 40.2(30.9)                                       | 1.30                         | 1.00     | 3.04                                  |
| CDRH4D22NP-4R7NC | 4R7   | 4.7 $\pm$ 30%                           | 55.9(43.0)                                       | 1.10                         | 0.90     | 2.08                                  |
| CDRH4D22NP-5R6NC | 5R6   | 5.6 $\pm$ 30%                           | 62.0(47.7)                                       | 1.05                         | 0.85     | 2.05                                  |
| CDRH4D22NP-6R8NC | 6R8   | 6.8 $\pm$ 30%                           | 88.0(67.7)                                       | 1.00                         | 0.75     | 1.95                                  |
| CDRH4D22NP-8R2NC | 8R2   | 8.2 $\pm$ 30%                           | 96.5(74.2)                                       | 0.90                         | 0.65     | 1.85                                  |
| CDRH4D22NP-100NC | 100   | 10 $\pm$ 30%                            | 102.4(78.8)                                      | 0.80                         | 0.60     | 1.82                                  |
| CDRH4D22NP-120NC | 120   | 12 $\pm$ 30%                            | 110.4(84.9)                                      | 0.75                         | 0.55     | 1.80                                  |
| CDRH4D22NP-150NC | 150   | 15 $\pm$ 30%                            | 127.4(98.0)                                      | 0.68                         | 0.50     | 1.59                                  |
| CDRH4D22NP-180NC | 180   | 18 $\pm$ 30%                            | 168.7(129.8)                                     | 0.60                         | 0.43     | 1.41                                  |
| CDRH4D22NP-220NC | 220   | 22 $\pm$ 30%                            | 199.7(153.6)                                     | 0.54                         | 0.41     | 1.32                                  |
| CDRH4D22NP-270NC | 270   | 27 $\pm$ 30%                            | 282.5(217.3)                                     | 0.51                         | 0.38     | 1.04                                  |
| CDRH4D22NP-330NC | 330   | 33 $\pm$ 30%                            | 325.8(250.6)                                     | 0.48                         | 0.35     | 1.02                                  |
| CDRH4D22NP-390NC | 390   | 39 $\pm$ 30%                            | 451.2(347.1)                                     | 0.43                         | 0.32     | 0.85                                  |
| CDRH4D22NP-470NC | 470   | 47 $\pm$ 30%                            | 500.4(384.9)                                     | 0.38                         | 0.30     | 0.82                                  |
| CDRH4D22NP-560NC | 560   | 56 $\pm$ 30%                            | 555.4(427.2)                                     | 0.36                         | 0.28     | 0.72                                  |
| CDRH4D22NP-680NC | 680   | 68 $\pm$ 30%                            | 634.1(487.8)                                     | 0.33                         | 0.25     | 0.67                                  |
| CDRH4D22NP-820NC | 820   | 82 $\pm$ 30%                            | 794.6(608.9)                                     | 0.30                         | 0.22     | 0.58                                  |
| CDRH4D22NP-101NC | 101   | 100 $\pm$ 30%                           | 880(670)                                         | 0.25                         | 0.20     | 0.55                                  |
| CDRH4D22NP-121NC | 121   | 120 $\pm$ 30%                           | 1140(880)                                        | 0.23                         | 0.18     | 0.52                                  |
| CDRH4D22NP-151NC | 151   | 150 $\pm$ 30%                           | 1350(1040)                                       | 0.21                         | 0.17     | 0.47                                  |

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 65% of it's nominal value.

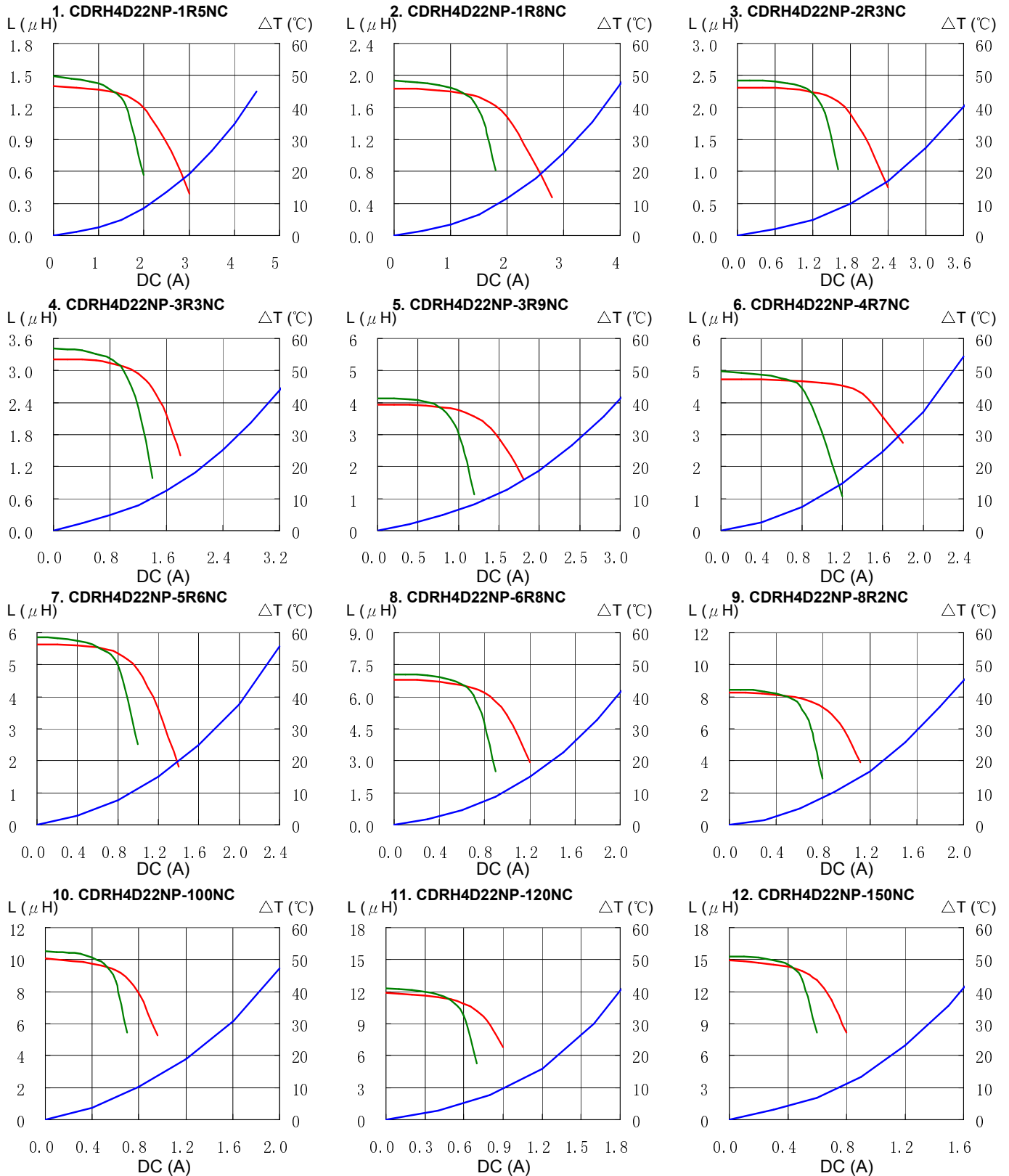
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

# SMD Power Inductor CDRH4D22



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$



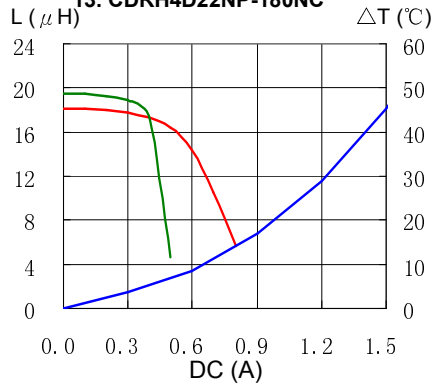
# SMD Power Inductor CDRH4D22



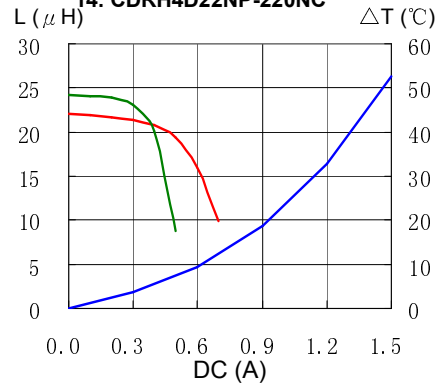
## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

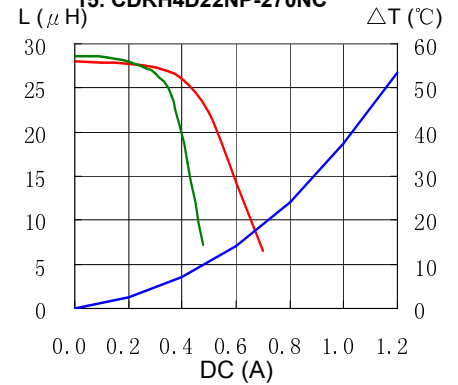
13. CDRH4D22NP-180NC



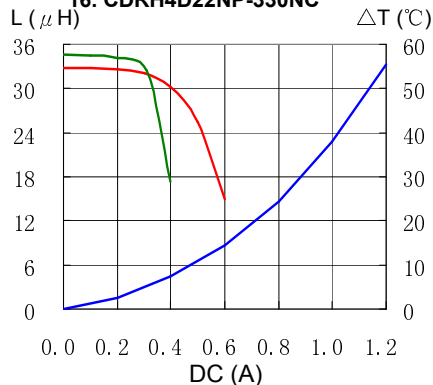
14. CDRH4D22NP-220NC



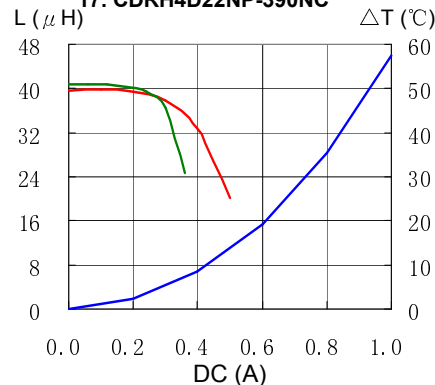
15. CDRH4D22NP-270NC



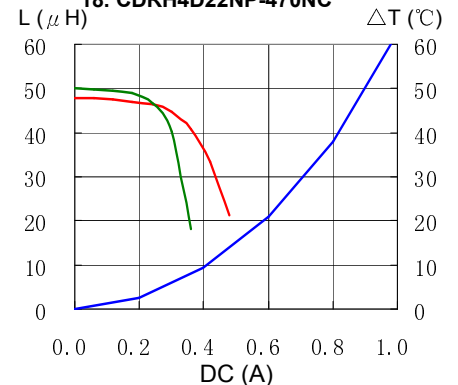
16. CDRH4D22NP-330NC



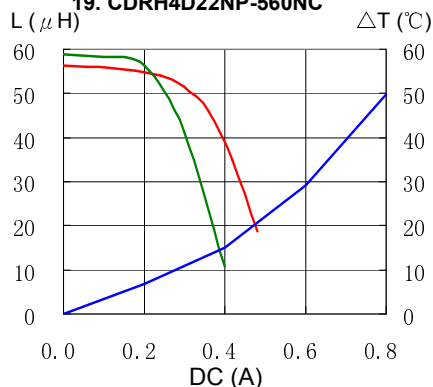
17. CDRH4D22NP-390NC



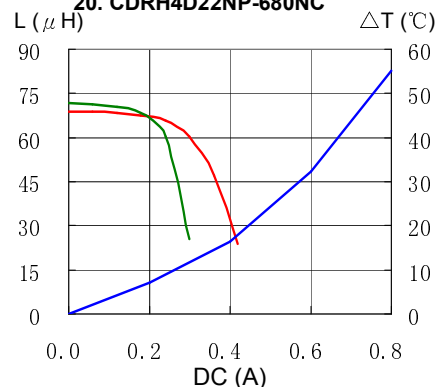
18. CDRH4D22NP-470NC



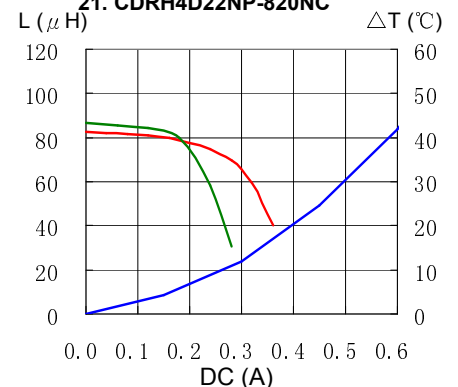
19. CDRH4D22NP-560NC



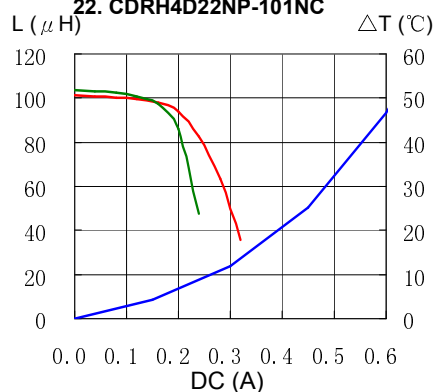
20. CDRH4D22NP-680NC



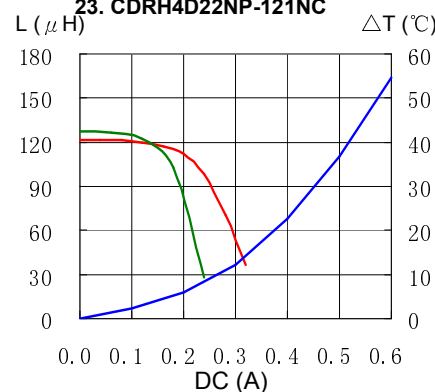
21. CDRH4D22NP-820NC



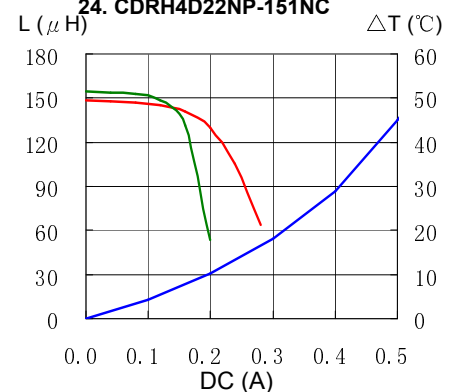
22. CDRH4D22NP-101NC



23. CDRH4D22NP-121NC



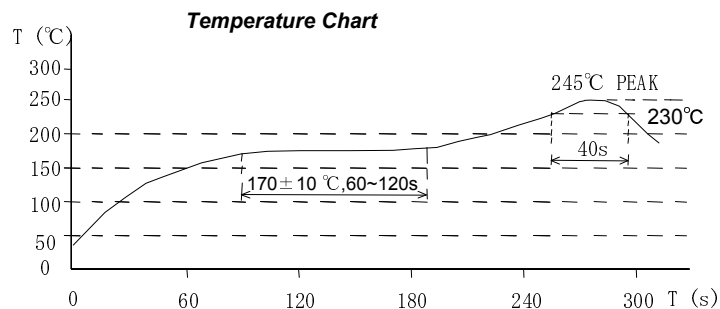
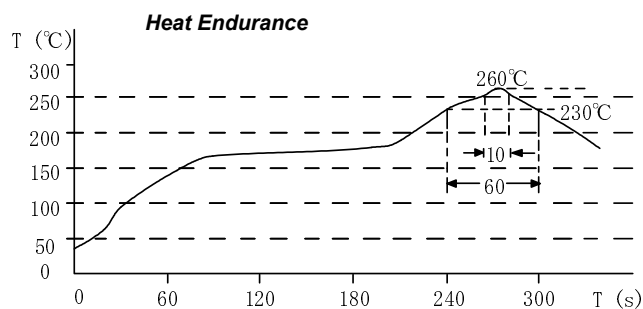
24. CDRH4D22NP-151NC



# SMD Power Inductor CDRH4D22



## Solder Reflow Condition



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