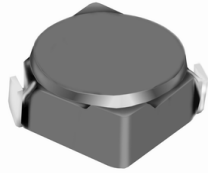




**THE DATASHEET OF  
CDRH4D22HPNP-330MC**



# SMD Power Inductor CDRH4D22/HP



## 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.

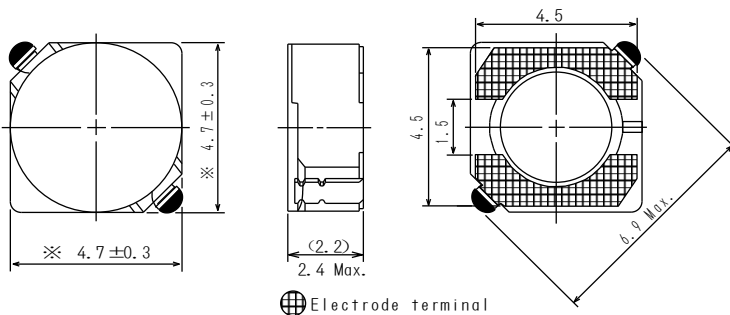
## Packaging

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

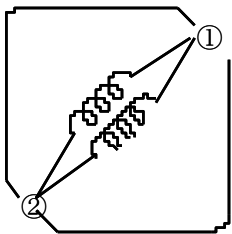
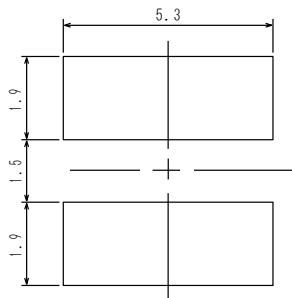
## Applications

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

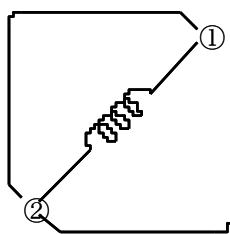
## Dimension - [mm]



## Land pattern and Schematics - [mm]



(1.2µH ~ 5.2µH)



(6.3µH ~ 100µH)



### 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 |                                       |
| CDRH4D22HPNP-1R2NC | 1R2   | 1.2 $\pm$ 25%                             | 26.5(21.2)                                       | 4.20                           | 3.40     | 3.20                                  |
| CDRH4D22HPNP-1R5NC | 1R5   | 1.5 $\pm$ 25%                             | 31.3(25.0)                                       | 3.90                           | 3.20     | 3.00                                  |
| CDRH4D22HPNP-2R2NC | 2R2   | 2.2 $\pm$ 25%                             | 44.3(35.4)                                       | 3.20                           | 2.50     | 2.40                                  |
| CDRH4D22HPNP-2R7NC | 2R7   | 2.7 $\pm$ 25%                             | 57.8(46.3)                                       | 2.80                           | 2.35     | 2.20                                  |
| CDRH4D22HPNP-3R5NC | 3R5   | 3.5 $\pm$ 25%                             | 65.1(52.0)                                       | 2.50                           | 2.10     | 2.00                                  |
| CDRH4D22HPNP-4R7NC | 4R7   | 4.7 $\pm$ 25%                             | 82.6(66.0)                                       | 2.20                           | 1.80     | 1.80                                  |
| CDRH4D22HPNP-5R2NC | 5R2   | 5.2 $\pm$ 25%                             | 92.8(74.3)                                       | 2.00                           | 1.65     | 1.70                                  |
| CDRH4D22HPNP-6R3NC | 6R3   | 6.3 $\pm$ 25%                             | 110.0(87.9)                                      | 1.85                           | 1.50     | 1.40                                  |
| CDRH4D22HPNP-8R2NC | 8R2   | 8.2 $\pm$ 25%                             | 128.3(102.6)                                     | 1.65                           | 1.40     | 1.35                                  |
| CDRH4D22HPNP-100MC | 100   | 10 $\pm$ 20%                              | 143.8(115.0)                                     | 1.50                           | 1.20     | 1.30                                  |
| CDRH4D22HPNP-120MC | 120   | 12 $\pm$ 20%                              | 187.2(150.0)                                     | 1.30                           | 1.10     | 1.10                                  |
| CDRH4D22HPNP-150MC | 150   | 15 $\pm$ 20%                              | 212.9(170.3)                                     | 1.20                           | 1.00     | 0.85                                  |
| CDRH4D22HPNP-180MC | 180   | 18 $\pm$ 20%                              | 238.7(191.0)                                     | 1.10                           | 0.90     | 0.80                                  |
| CDRH4D22HPNP-220MC | 220   | 22 $\pm$ 20%                              | 267.0(213.6)                                     | 1.05                           | 0.85     | 0.75                                  |
| CDRH4D22HPNP-270MC | 270   | 27 $\pm$ 20%                              | 393.9(315.0)                                     | 0.90                           | 0.75     | 0.70                                  |
| CDRH4D22HPNP-330MC | 330   | 33 $\pm$ 20%                              | 448.9(359.0)                                     | 0.80                           | 0.68     | 0.65                                  |
| CDRH4D22HPNP-390MC | 390   | 39 $\pm$ 20%                              | 667.9(534.3)                                     | 0.75                           | 0.60     | 0.52                                  |
| CDRH4D22HPNP-470MC | 470   | 47 $\pm$ 20%                              | 723.3(578.6)                                     | 0.70                           | 0.56     | 0.50                                  |
| CDRH4D22HPNP-560MC | 560   | 56 $\pm$ 20%                              | 810.0(648.2)                                     | 0.65                           | 0.52     | 0.48                                  |
| CDRH4D22HPNP-680MC | 680   | 68 $\pm$ 20%                              | 913.0(730.4)                                     | 0.60                           | 0.48     | 0.45                                  |
| CDRH4D22HPNP-820MC | 820   | 82 $\pm$ 20%                              | 1221(977.0)                                      | 0.55                           | 0.45     | 0.40                                  |
| CDRH4D22HPNP-101MC | 101   | 100 $\pm$ 20%                             | 1370(1096.0)                                     | 0.48                           | 0.38     | 0.35                                  |

※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.

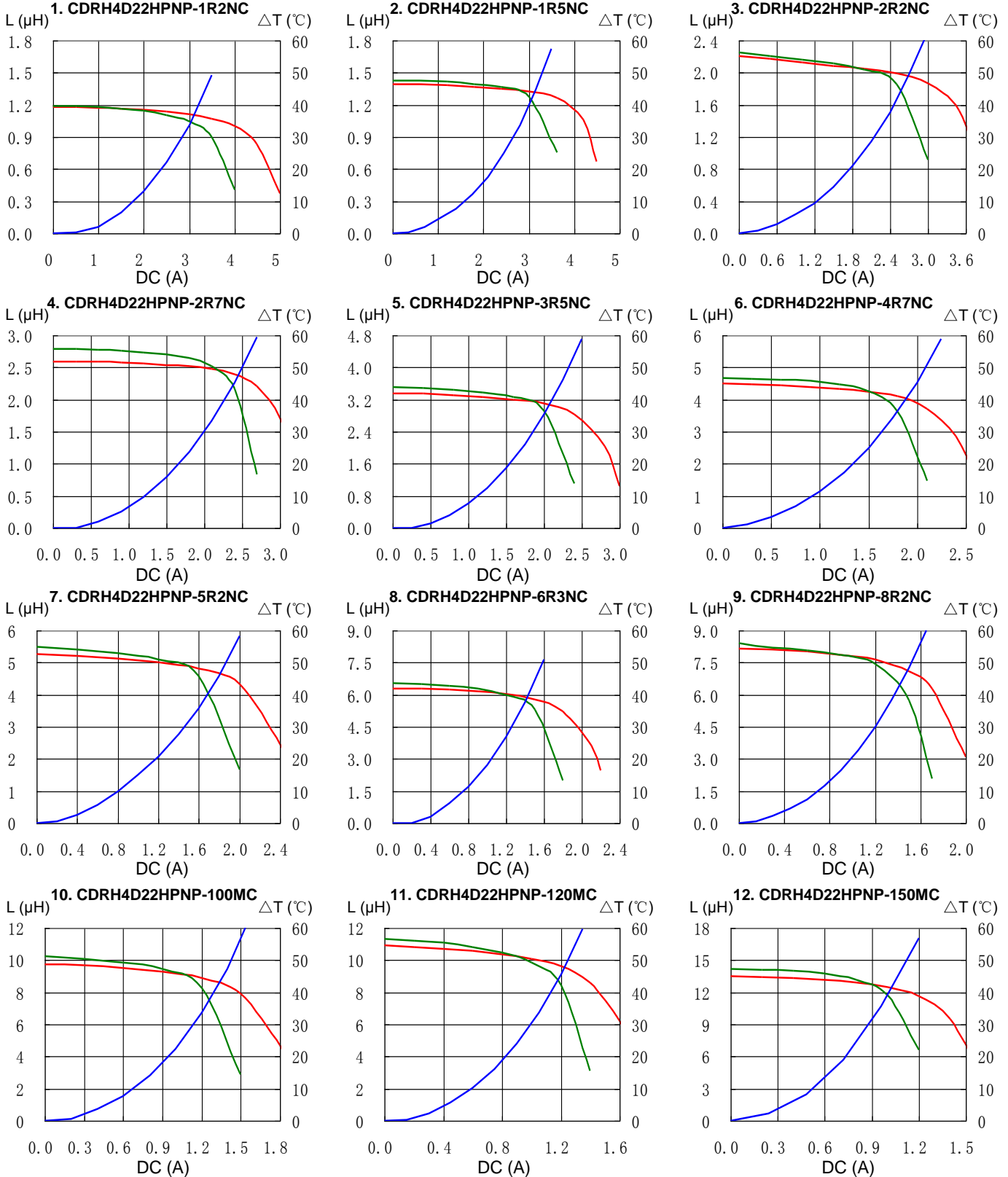
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

# SMD Power Inductor CDRH4D22/HP



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

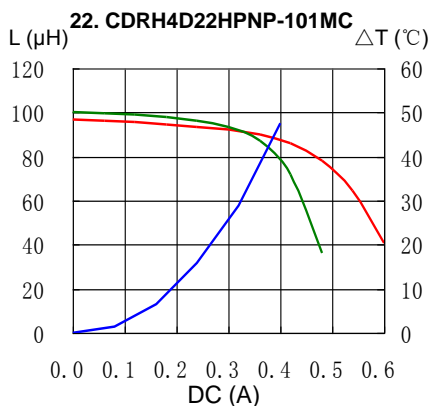
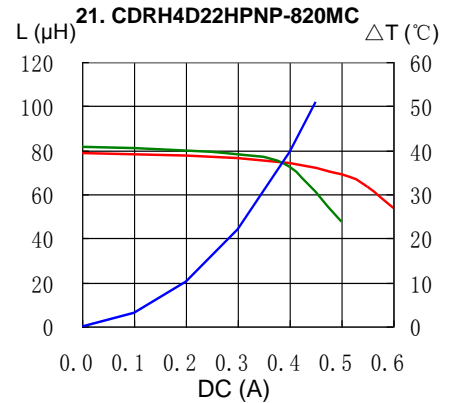
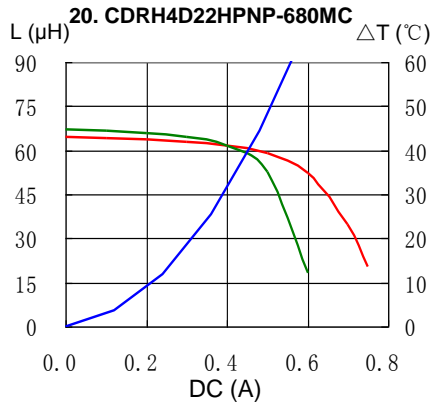
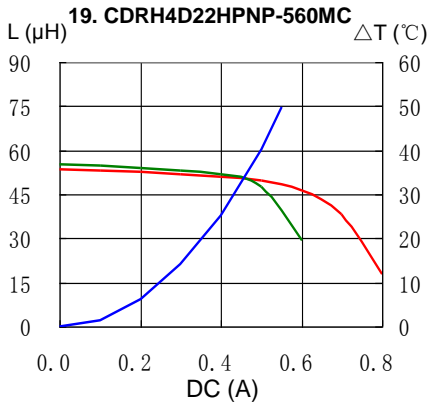
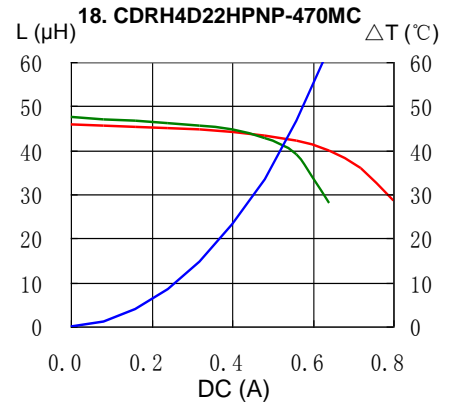
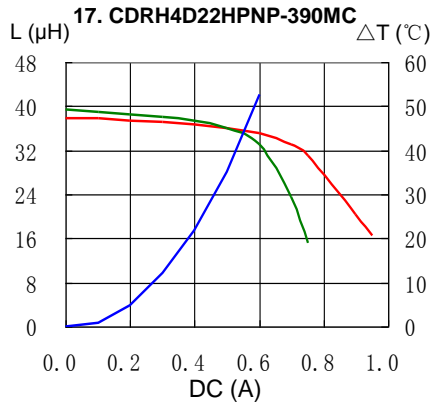
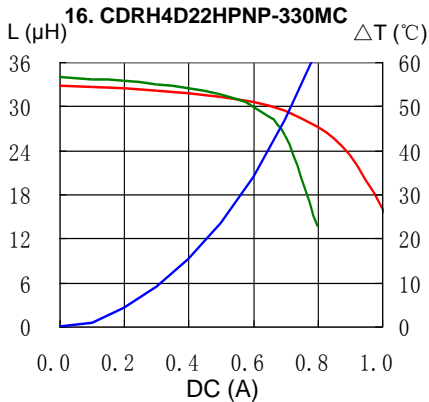
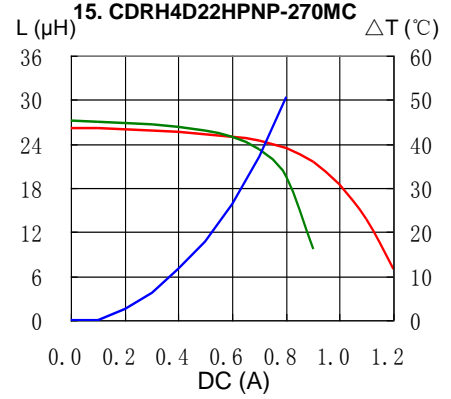
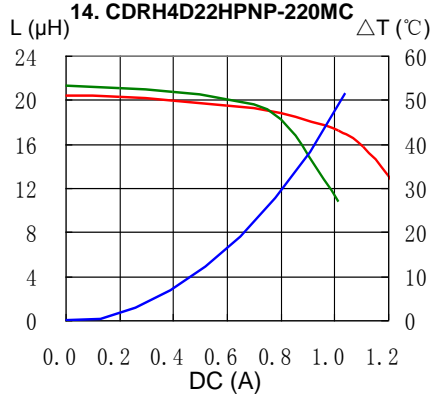
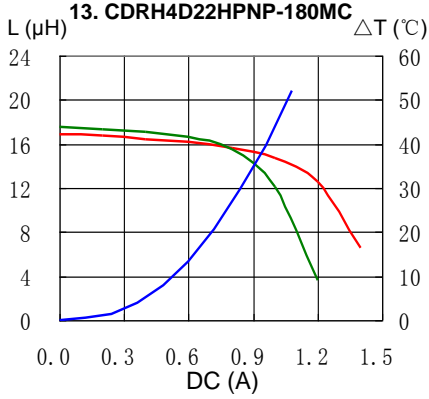


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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

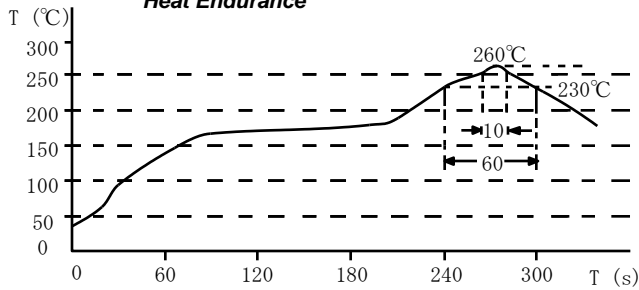


# SMD Power Inductor CDRH4D22/HP

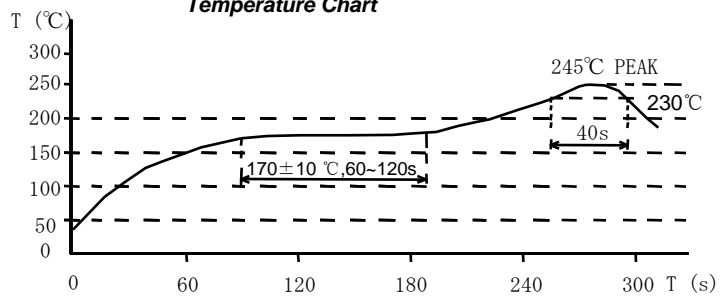


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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