

# SMD Power Inductor CDRH50D28R



Halogen  
Free



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 5.3 × 5.3 × 3.0mm Max.
- Product weight: 0.25g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Environmental Data

- Operating temperature range: -40°C~+105°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+105°C
- Solder reflow temperature: 260 °C peak.

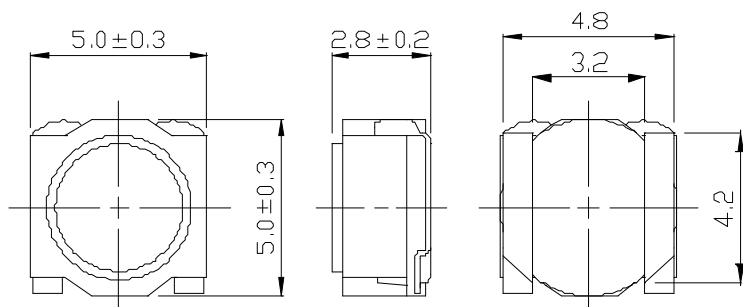
## Packaging

- Carrier tape and reel packaging.
- 13.0" diameter reel
- 2000pcs per reel

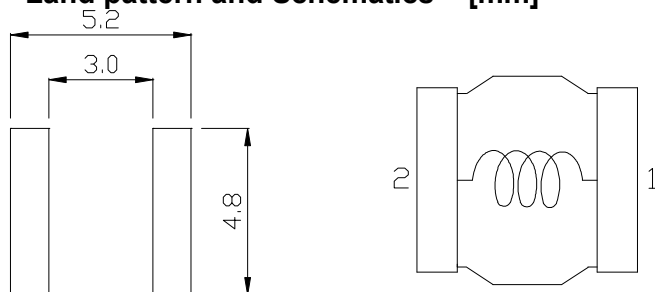
## Applications

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

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## Electrical Characteristics

| Part No.           | Stamp | Inductance (μH)<br>[Within] ※1 | D.C.R. (mΩ)<br>[Within]<br>(at 20°C) | Saturation current<br>(A) ※2 |            | Temperature rise<br>current (A) ※3 |
|--------------------|-------|--------------------------------|--------------------------------------|------------------------------|------------|------------------------------------|
|                    |       |                                |                                      | (at 20°C)                    | (at 105°C) |                                    |
| CDRH50D28RNP-1R2NC | A     | 1.2 ± 30%                      | 13 ± 25%                             | 4.80                         | 4.10       | 5.40                               |
| CDRH50D28RNP-1R6NC | B     | 1.6 ± 30%                      | 15 ± 25%                             | 4.20                         | 3.60       | 4.70                               |
| CDRH50D28RNP-2R2NC | C     | 2.2 ± 30%                      | 17 ± 25%                             | 3.65                         | 3.05       | 4.30                               |
| CDRH50D28RNP-3R0MC | D     | 3.0 ± 20%                      | 25 ± 25%                             | 3.10                         | 2.55       | 3.50                               |
| CDRH50D28RNP-4R7MC | E     | 4.7 ± 20%                      | 40 ± 25%                             | 2.50                         | 2.15       | 2.70                               |
| CDRH50D28RNP-6R8MC | F     | 6.8 ± 20%                      | 61 ± 25%                             | 2.10                         | 1.75       | 2.20                               |
| CDRH50D28RNP-100MC | G     | 10 ± 20%                       | 87 ± 25%                             | 1.70                         | 1.40       | 1.75                               |
| CDRH50D28RNP-150MC | H     | 15 ± 20%                       | 140 ± 20%                            | 1.40                         | 1.10       | 1.30                               |
| CDRH50D28RNP-220MC | J     | 22 ± 20%                       | 175 ± 20%                            | 1.15                         | 0.98       | 1.16                               |
| CDRH50D28RNP-330MC | K     | 33 ± 20%                       | 248 ± 20%                            | 0.94                         | 0.78       | 0.98                               |
| CDRH50D28RNP-470MC | L     | 47 ± 20%                       | 370 ± 20%                            | 0.78                         | 0.65       | 0.78                               |

※1. Measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 70% of it's nominal value.

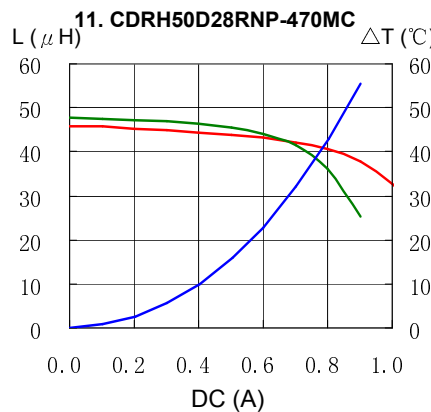
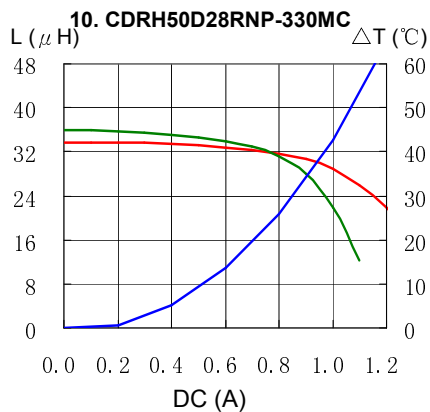
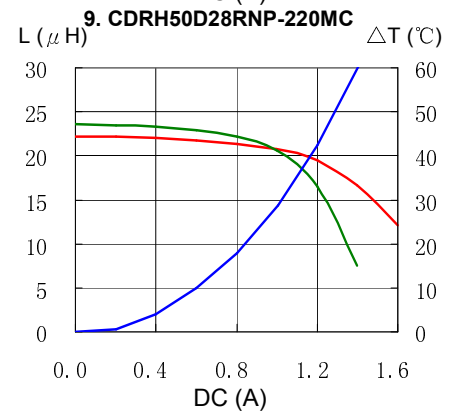
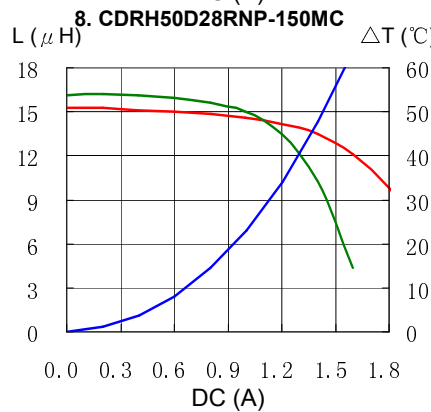
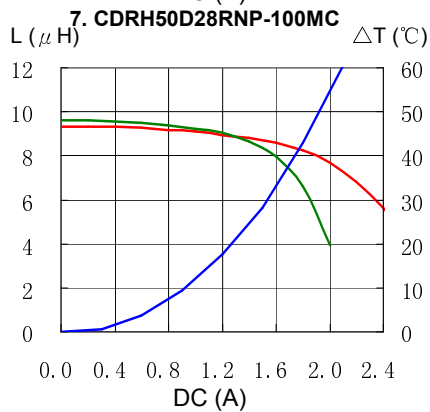
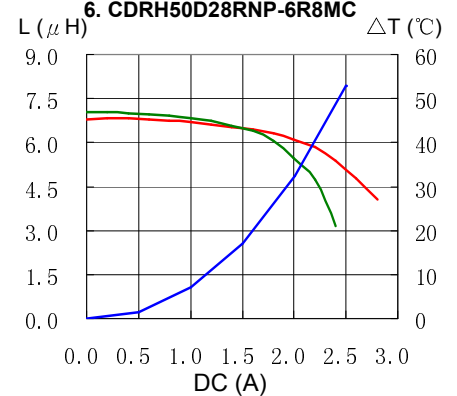
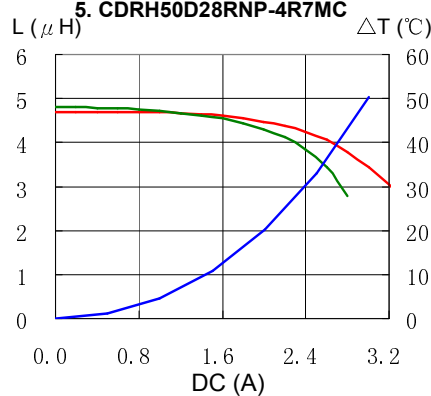
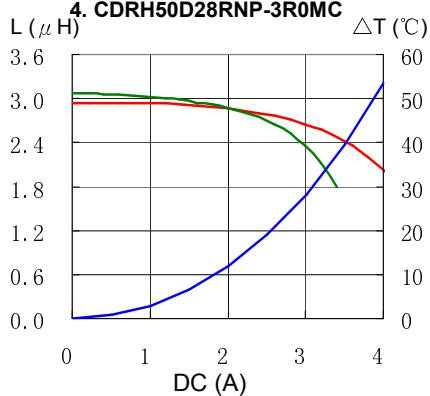
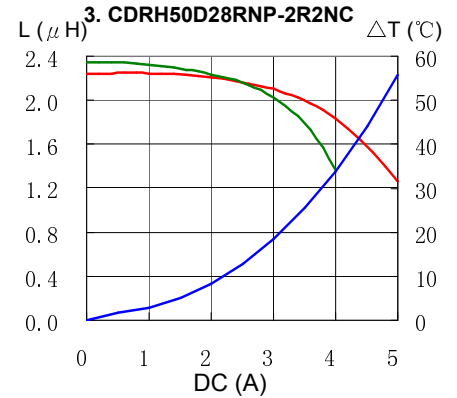
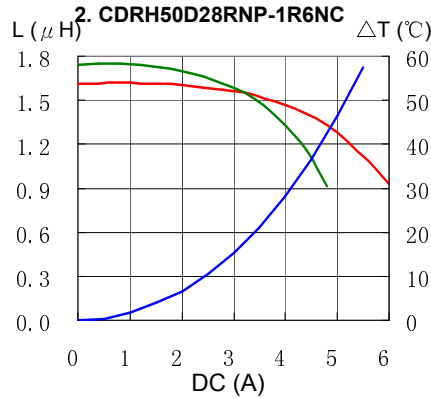
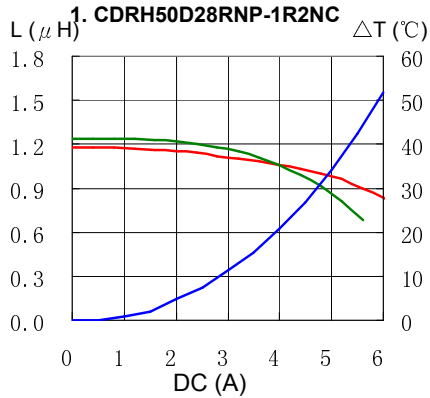
※3. Temperature rise current: The value of D.C. current when the temperature rise is Δt=40°C (Ta=20°C).

# SMD Power Inductor CDRH50D28R



## Saturation Current & Temperature Rise Graph

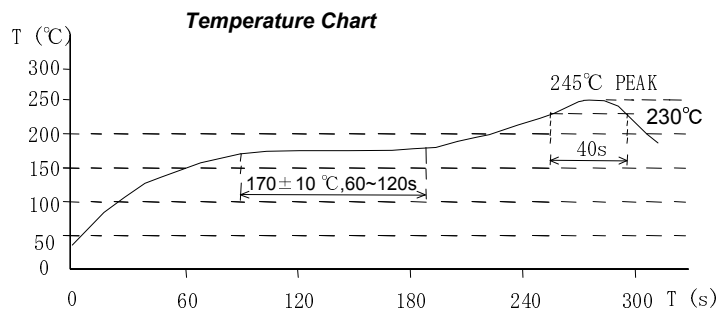
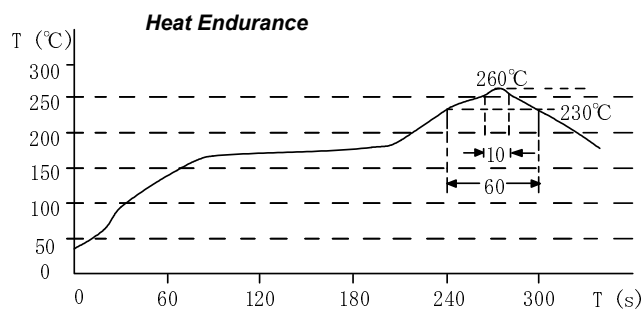
— L (20°C) — L (105°C) —  $\Delta T$



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## Solder Reflow Condition



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