

# SMD Power Inductor CDRR105



Halogen Free



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 10.4 × 10.4 × 4.8 mm Max.
- Product weight: 1.3 g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Environmental Data

- Operating temperature range: -40°C~+125°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+125°C
- Solder reflow temperature: 260 °C peak.

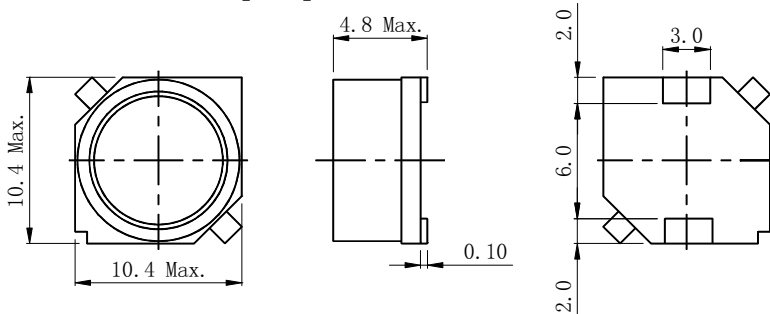
## Packaging

- Carrier tape and reel packaging
- 13.0" diameter reel
- 500pcs per reel

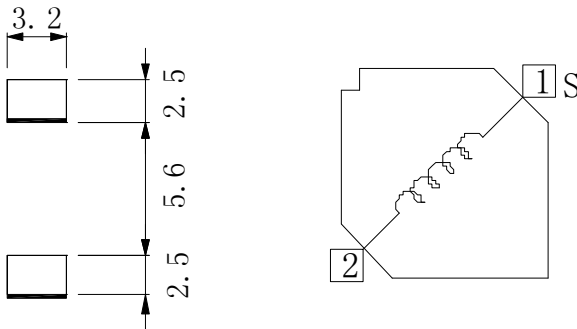
## Applications

- For consumer electronics :HDD, personal computer, LCD display, etc.
- For automotive: ABS, SRS airbag, HID/LED, car audio, car navigation, LCD display, etc.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



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## Electrical Characteristics

| Part No.        | Stamp | Inductance<br>( $\mu$ H)<br>[Within] ※1 | D.C.R.( $\Omega$ )<br>Max. (Typ.)<br>(at 20°C) | DC Saturation Current (A) ※2 |            | Temperature<br>Rise Current<br>(A) ※3 |
|-----------------|-------|---|--|------------------------------|------------|---------------------------------------|
|                 |       |   |  | (at 20°C)                    | (at 125°C) |                                       |
| CDRR105NP-3R3NC | 3R3   | 3.3 $\pm$ 30%                           | 21.0m(16.8m)                                   | 4.80(6.00)                   | 3.76(4.70) | 4.90(5.60)                            |
| CDRR105NP-5R6MC | 5R6   | 5.6 $\pm$ 20%                           | 29.6m(23.7m)                                   | 3.52(4.40)                   | 2.88(3.60) | 3.90(4.50)                            |
| CDRR105NP-100MC | 100   | 10 $\pm$ 20%                            | 47.5m(38.0m)                                   | 2.48(3.10)                   | 1.92(2.40) | 3.00(3.42)                            |
| CDRR105NP-150MC | 150   | 15 $\pm$ 20%                            | 63.8m(51.0m)                                   | 2.00(2.50)                   | 1.56(1.95) | 2.71(3.08)                            |
| CDRR105NP-220MC | 220   | 22 $\pm$ 20%                            | 77.5m(62.0m)                                   | 1.66(2.08)                   | 1.30(1.62) | 2.35(2.70)                            |
| CDRR105NP-330MC | 330   | 33 $\pm$ 20%                            | 0.105(84.0m)                                   | 1.32(1.65)                   | 1.00(1.25) | 1.93(2.20)                            |
| CDRR105NP-470MC | 470   | 47 $\pm$ 20%                            | 0.138(0.110)                                   | 1.12(1.40)                   | 0.87(1.09) | 1.70(1.92)                            |
| CDRR105NP-680MC | 680   | 68 $\pm$ 20%                            | 0.195(0.156)                                   | 0.98(1.22)                   | 0.70(0.87) | 1.38(1.58)                            |
| CDRR105NP-101MC | 101   | 100 $\pm$ 20%                           | 0.278(0.222)                                   | 0.80(1.00)                   | 0.63(0.79) | 1.16(1.33)                            |
| CDRR105NP-151MC | 151   | 150 $\pm$ 20%                           | 0.425(0.340)                                   | 0.67(0.84)                   | 0.52(0.65) | 0.93(1.05)                            |
| CDRR105NP-221MC | 221   | 220 $\pm$ 20%                           | 0.573(0.458)                                   | 0.51(0.64)                   | 0.40(0.50) | 0.76(0.87)                            |
| CDRR105NP-331MC | 331   | 330 $\pm$ 20%                           | 0.848(0.678)                                   | 0.44(0.54)                   | 0.34(0.42) | 0.61(0.71)                            |
| CDRR105NP-471MC | 471   | 470 $\pm$ 20%                           | 1.20(1.01)                                     | 0.38(0.48)                   | 0.30(0.37) | 0.54(0.62)                            |
| CDRR105NP-681MC | 681   | 680 $\pm$ 20%                           | 1.82(1.52)                                     | 0.32(0.39)                   | 0.24(0.30) | 0.42(0.48)                            |
| CDRR105NP-102MC | 102   | 1000 $\pm$ 20%                          | 2.71(2.26)                                     | 0.26(0.32)                   | 0.20(0.24) | 0.32(0.37)                            |
| CDRR105NP-152MC | 152   | 1500 $\pm$ 20%                          | 4.00(3.33)                                     | 0.21(0.26)                   | 0.16(0.20) | 0.27(0.32)                            |

※1. Measuring condition: at 1kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 90% of it's nominal value.

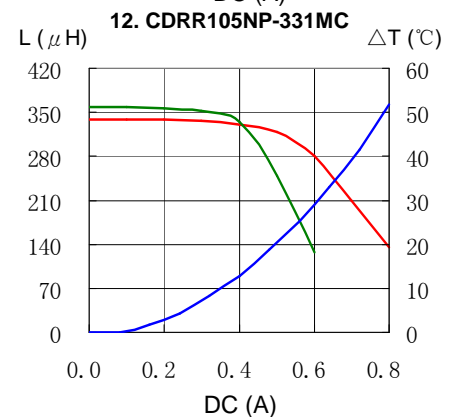
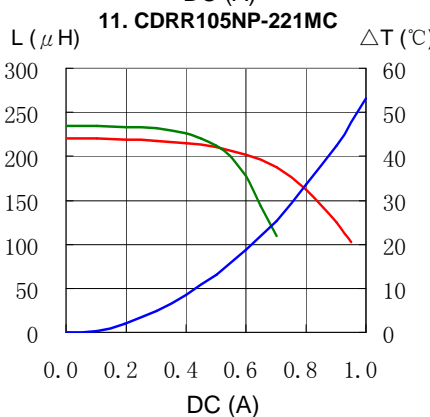
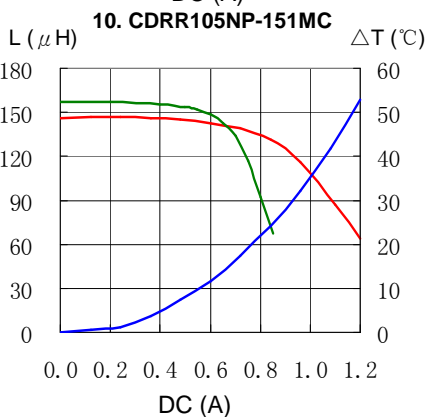
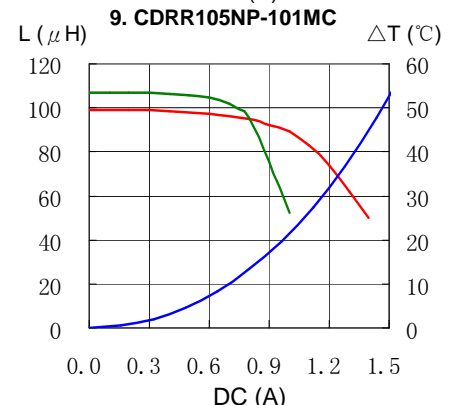
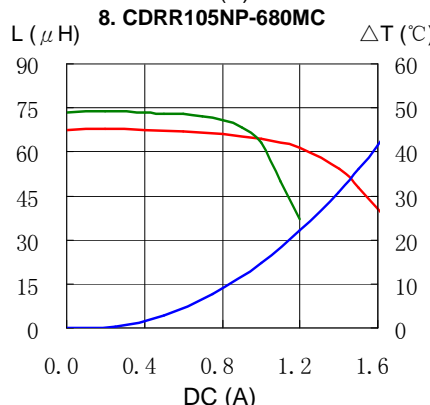
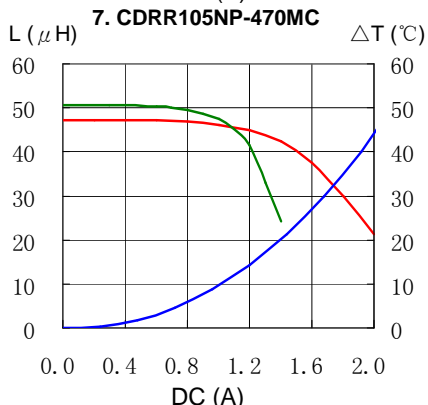
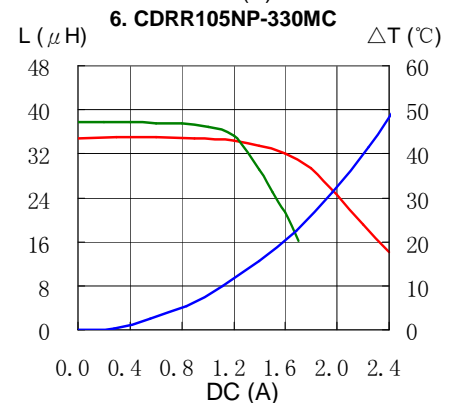
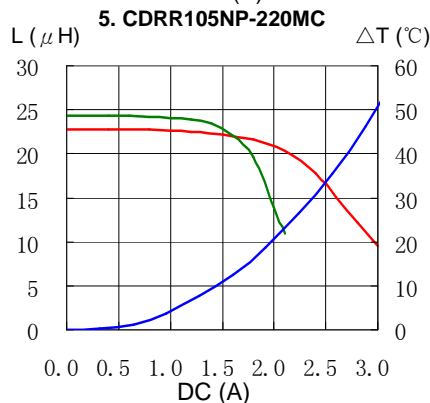
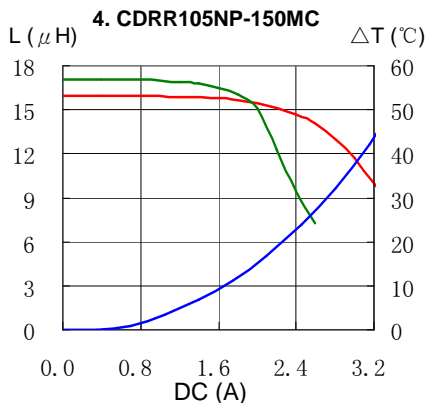
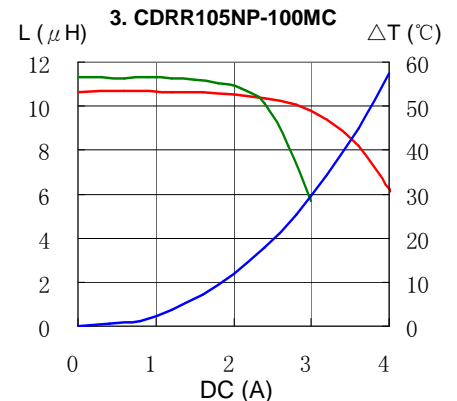
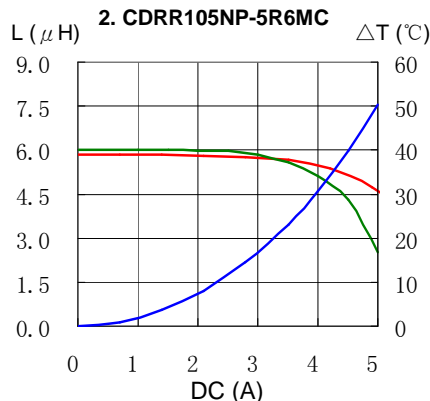
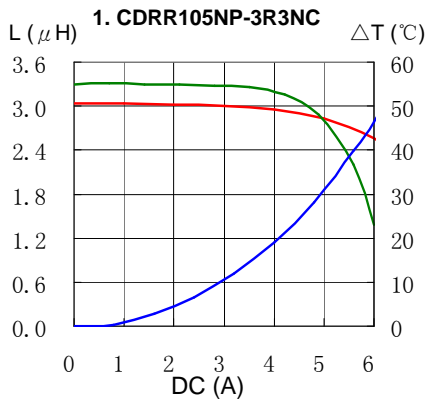
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

# SMD Power Inductor CDRR105



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (125°C) —  $\Delta T$

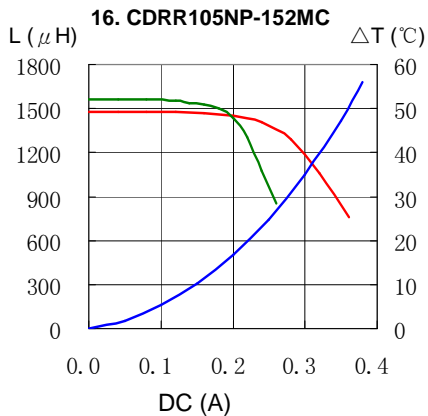
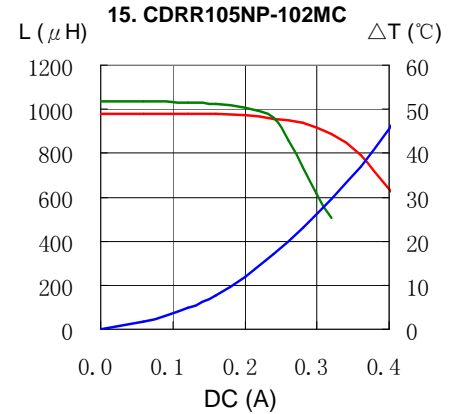
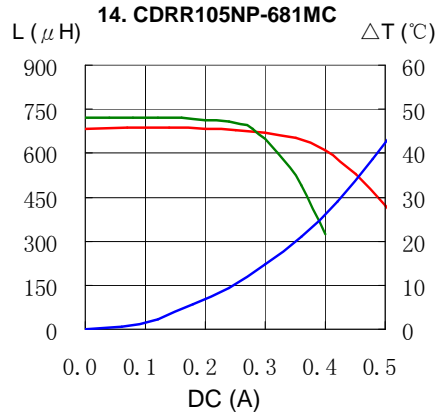
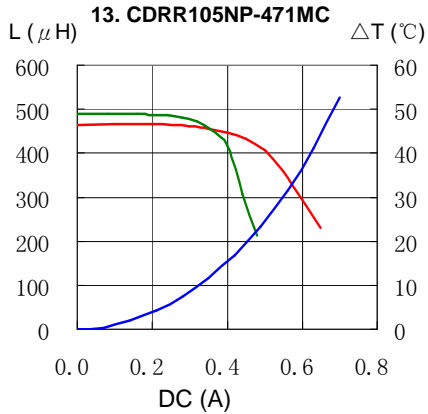


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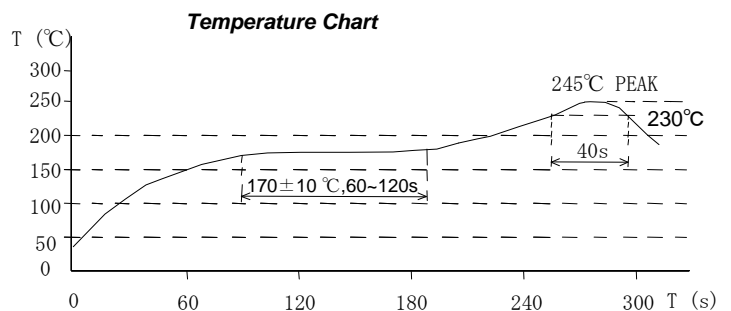
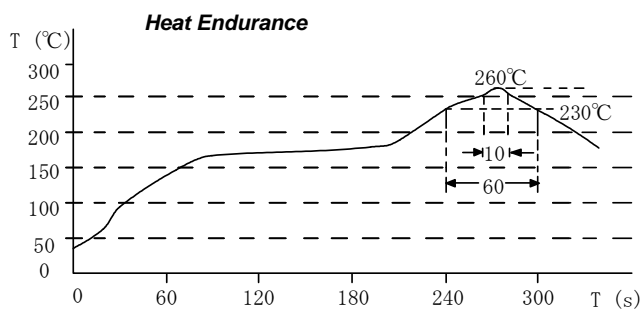


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (125°C) —  $\Delta T$



## Solder Reflow Condition



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