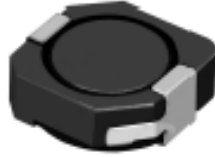


# SMD Power Inductor CDRH104R



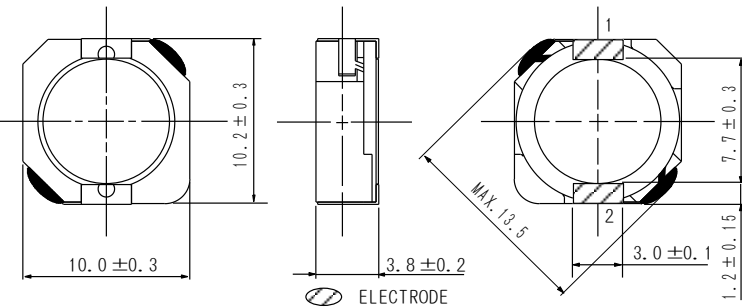
**Halogen  
Free**



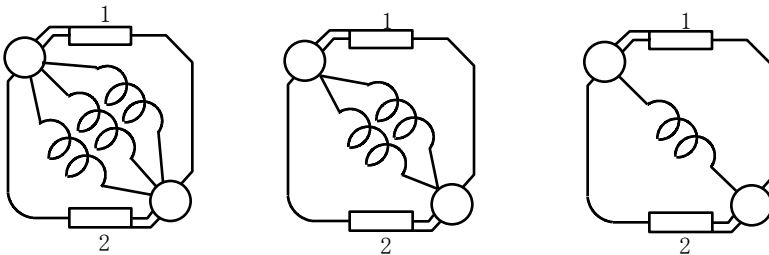
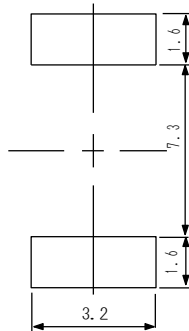
## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 10.5 × 10.3 × 4.0mm Max.
- Product weight: 1.5g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



(1.5μH~5.2μH, 10μH) (7.0μH、12μH~33μH) (39μH~330μH)

## 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.
- 13" diameter reel.
- 1000pcs per reel.

## Applications

- Ideally used in Notebook PC, LCD TV, DVD, Game machine, STB, Projector etc as DC-DC converter inductors.



### Electrical Characteristics

| PART NO.         | STAMP | INDUCTANCE<br>[WITHIN]<br>※1 | D. C. R. (mΩ)<br>[MAX. ] (TYP.)<br>(at 20°C) | SATURATION<br>CURRENT<br>(A)<br>MAX. (TYP.)<br>※2 | TEMPERATURE<br>RISE<br>CURRENT<br>(A) ※3 |
|------------------|-------|------------------------------|--|---|--|
| CDRH104RNP-1R5NC | 1R5   | 1.5 μH ± 30%                 | 8.1 (6.0)                                    | 10.0 (12.5)                                       | 8.50                                     |
| CDRH104RNP-2R5NC | 2R5   | 2.5 μH ± 30%                 | 10.5 (7.8)                                   | 7.90 (9.90)                                       | 7.70                                     |
| CDRH104RNP-3R8NC | 3R8   | 3.8 μH ± 30%                 | 13.0 (9.6)                                   | 7.00 (8.80)                                       | 7.40                                     |
| CDRH104RNP-5R2NC | 5R2   | 5.2 μH ± 30%                 | 22 (16)                                      | 5.60 (7.00)                                       | 6.00                                     |
| CDRH104RNP-7R0NC | 7R0   | 7.0 μH ± 30%                 | 27 (20)                                      | 5.25 (6.60)                                       | 5.30                                     |
| CDRH104RNP-100NC | 100   | 10 μH ± 30%                  | 35 (26)                                      | 4.48 (5.60)                                       | 4.50                                     |
| CDRH104RNP-120NC | 120   | 12 μH ± 30%                  | 46 (34)                                      | 4.00 (5.00)                                       | 3.80                                     |
| CDRH104RNP-150NC | 150   | 15 μH ± 30%                  | 50 (37)                                      | 3.50 (4.40)                                       | 3.70                                     |
| CDRH104RNP-180NC | 180   | 18 μH ± 30%                  | 69 (51)                                      | 3.25 (4.10)                                       | 3.10                                     |
| CDRH104RNP-220NC | 220   | 22 μH ± 30%                  | 73 (54)                                      | 2.85 (3.60)                                       | 2.80                                     |
| CDRH104RNP-270NC | 270   | 27 μH ± 30%                  | 88 (65)                                      | 2.60 (3.28)                                       | 2.70                                     |
| CDRH104RNP-330NC | 330   | 33 μH ± 30%                  | 93 (69)                                      | 2.30 (2.90)                                       | 2.60                                     |
| CDRH104RNP-390NC | 390   | 39 μH ± 30%                  | 127 (94)                                     | 2.10 (2.62)                                       | 2.40                                     |
| CDRH104RNP-470NC | 470   | 47 μH ± 30%                  | 128 (95)                                     | 1.95 (2.44)                                       | 2.30                                     |
| CDRH104RNP-560NC | 560   | 56 μH ± 30%                  | 188 (139)                                    | 1.74 (2.18)                                       | 1.75                                     |
| CDRH104RNP-680NC | 680   | 68 μH ± 30%                  | 213 (158)                                    | 1.66 (2.08)                                       | 1.68                                     |
| CDRH104RNP-820NC | 820   | 82 μH ± 30%                  | 283 (218)                                    | 1.50 (1.88)                                       | 1.48                                     |
| CDRH104RNP-101NC | 101   | 100 μH ± 30%                 | 304 (225)                                    | 1.33 (1.66)                                       | 1.42                                     |
| CDRH104RNP-121NC | 121   | 120 μH ± 30%                 | 375 (278)                                    | 1.25 (1.56)                                       | 1.20                                     |
| CDRH104RNP-151NC | 151   | 150 μH ± 30%                 | 506 (375)                                    | 1.12 (1.40)                                       | 1.15                                     |
| CDRH104RNP-181NC | 181   | 180 μH ± 30%                 | 568 (421)                                    | 0.99 (1.24)                                       | 1.00                                     |
| CDRH104RNP-221NC | 221   | 220 μH ± 30%                 | 756 (560)                                    | 0.95 (1.19)                                       | 0.88                                     |
| CDRH104RNP-271NC | 271   | 270 μH ± 30%                 | 853 (632)                                    | 0.85 (1.06)                                       | 0.68                                     |
| CDRH104RNP-331NC | 331   | 330 μH ± 30%                 | 1090 (810)                                   | 0.74 (0.92)                                       | 0.66                                     |

※1 Measuring frequency at 100kHz

※2 Saturation current: this indicates the value of D.C. current when the inductance becomes 35% lower than its initial value. (Ta=20°C)

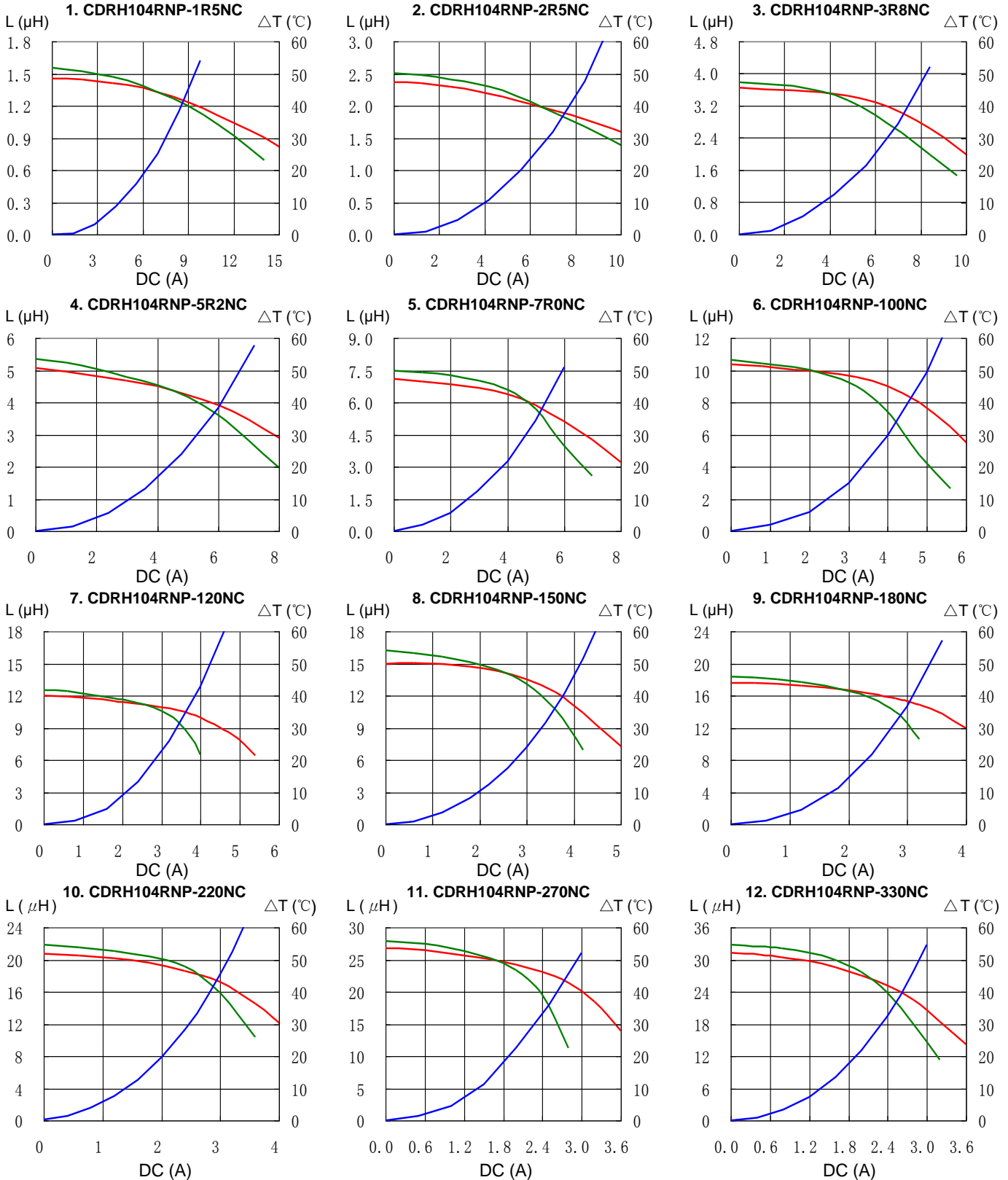
※3 Temperature rise current: the actual value of D.C. current when the temperature of coil becomes ΔT=40°C (Ta=20°C).

# SMD Power Inductor CDRH104R



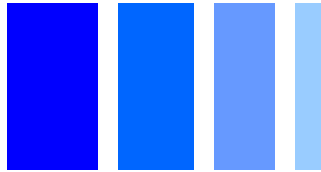
## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$



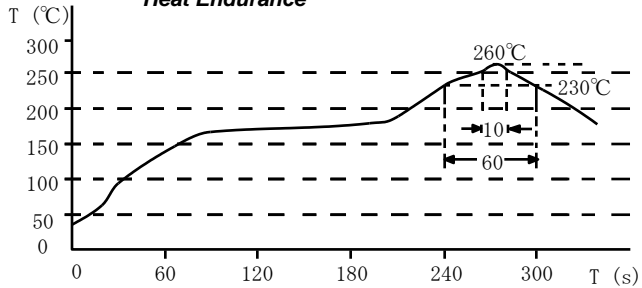


# SMD Power Inductor CDRH104R



## Solder Reflow Condition

*Heat Endurance*



*Temperature Chart*

