# THE DATASHEET OF

# CDRH104RNP-101NC

# SMD Power Inductor
## CDRH104R

RoHS

Halogen Free

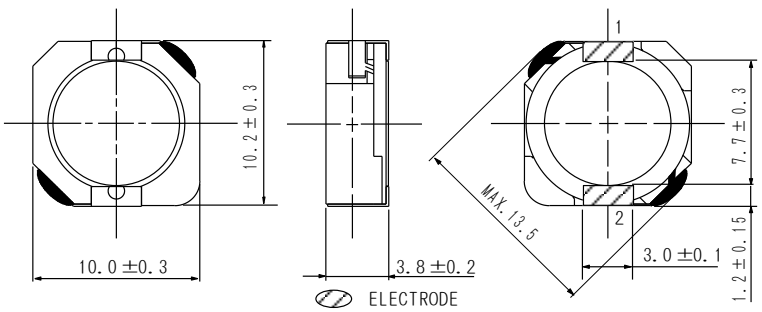
### Description
- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H:10.5 × 10.3 × 4.0mm Max.
- Product weight: 1.5g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

### Environmental Data
- Operating temperature range: -40℃～+100℃ (including coil's self temperature rise)
- Storage temperature range: -40℃～+100℃
- Solder reflow temperature: 260 ℃ peak.

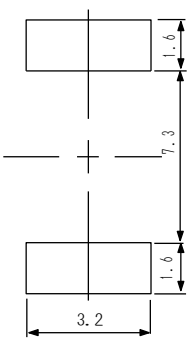
### Packaging
- Carrier tape and reel packaging.
- 13"diameter reel.
- 1000pcs per reel.

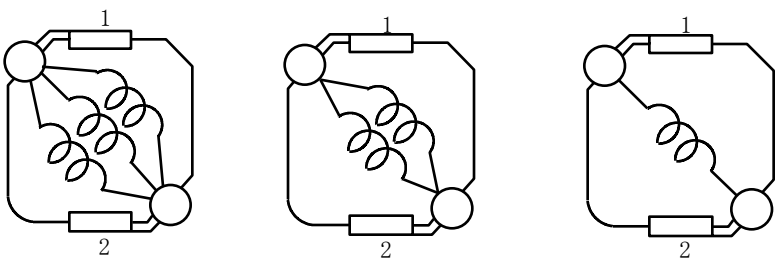
### Applications
- Ideally used in Notebook PC, LCD TV,DVD, Game machine, STB ,Projector etc as DC-DC converter inductors.

### Dimension - [mm]




### Land pattern and Schematics - [mm]




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



Revised: 6-Jan-17

## Electrical Characteristics

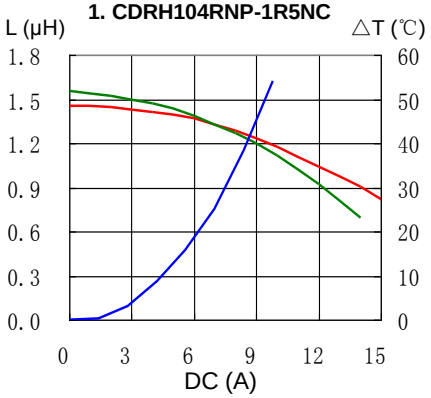
| PART NO. | STAMP | INDUCTANCE [WITHIN] ※1 | D.C.R. (mΩ) [MAX.] (TYP.) (at 20℃) | SATURATION CURRENT (A) MAX. (TYP.) ※2 | TEMPERATURE RISE CURRENT (A) ※3 |
|---|---|---|---|---|---|
| CDRH104RNP-1R5NC | 1R5 | 1.5μH±30% | 8.1 (6.0) | 10.0(12.5) | 8.50 |
| CDRH104RNP-2R5NC | 2R5 | 2.5μH±30% | 10.5(7.8) | 7.90(9.90) | 7.70 |
| CDRH104RNP-3R8NC | 3R8 | 3.8μH±30% | 13.0(9.6) | 7.00(8.80) | 7.40 |
| CDRH104RNP-5R2NC | 5R2 | 5.2μH±30% | 22(16) | 5.60(7.00) | 6.00 |
| CDRH104RNP-7R0NC | 7R0 | 7.0μH±30% | 27(20) | 5.25(6.60) | 5.30 |
| CDRH104RNP-100NC | 100 | 10μH±30% | 35(26) | 4.48(5.60) | 4.50 |
| CDRH104RNP-120NC | 120 | 12μH±30% | 46(34) | 4.00(5.00) | 3.80 |
| CDRH104RNP-150NC | 150 | 15μH±30% | 50(37) | 3.50(4.40) | 3.70 |
| CDRH104RNP-180NC | 180 | 18μH±30% | 69(51) | 3.25(4.10) | 3.10 |
| CDRH104RNP-220NC | 220 | 22μH±30% | 73(54) | 2.85(3.60) | 2.80 |
| CDRH104RNP-270NC | 270 | 27μH±30% | 88(65) | 2.60(3.28) | 2.70 |
| CDRH104RNP-330NC | 330 | 33μH±30% | 93(69) | 2.30(2.90) | 2.60 |
| CDRH104RNP-390NC | 390 | 39μH±30% | 127(94) | 2.10(2.62) | 2.40 |
| CDRH104RNP-470NC | 470 | 47μH±30% | 128(95) | 1.95(2.44) | 2.30 |
| CDRH104RNP-560NC | 560 | 56μH±30% | 188(139) | 1.74(2.18) | 1.75 |
| CDRH104RNP-680NC | 680 | 68μH±30% | 213(158) | 1.66(2.08) | 1.68 |
| CDRH104RNP-820NC | 820 | 82μH±30% | 283(218) | 1.50(1.88) | 1.48 |
| CDRH104RNP-101NC | 101 | 100μH±30% | 304(225) | 1.33(1.66) | 1.42 |
| CDRH104RNP-121NC | 121 | 120μH±30% | 375(278) | 1.25(1.56) | 1.20 |
| CDRH104RNP-151NC | 151 | 150μH±30% | 506(375) | 1.12(1.40) | 1.15 |
| CDRH104RNP-181NC | 181 | 180μH±30% | 568(421) | 0.99(1.24) | 1.00 |
| CDRH104RNP-221NC | 221 | 220μH±30% | 756(560) | 0.95(1.19) | 0.88 |
| CDRH104RNP-271NC | 271 | 270μH±30% | 853(632) | 0.85(1.06) | 0.68 |
| CDRH104RNP-331NC | 331 | 330μH±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℃)
※3 Temperature rise current: the actual value of D.C. current when the temperature of coil becomes △T=40℃ (Ta＝20℃).

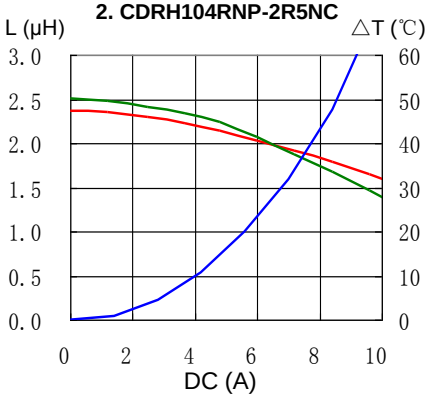
## Saturation Current & Temperature Rise Graph

L (20℃) L (105℃) △T

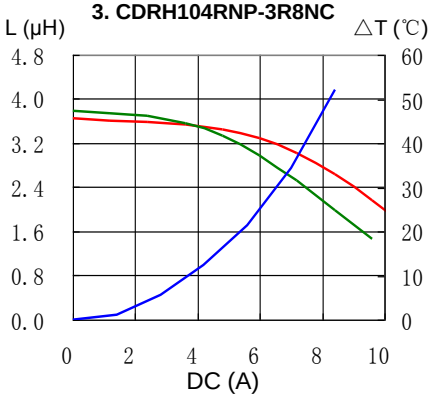
### 1. CDRH104RNP-1R5NC



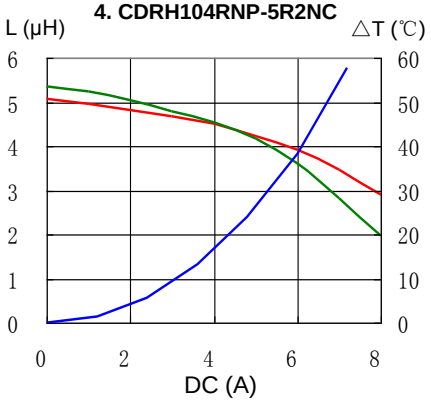

### 2. CDRH104RNP-2R5NC



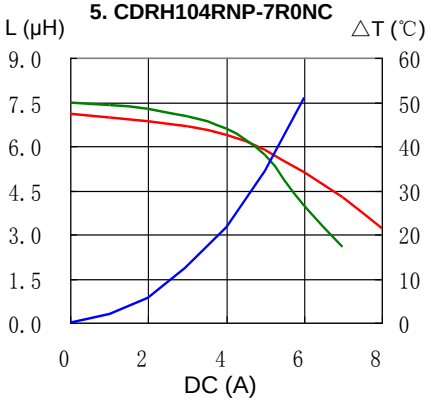

### 3. CDRH104RNP-3R8NC



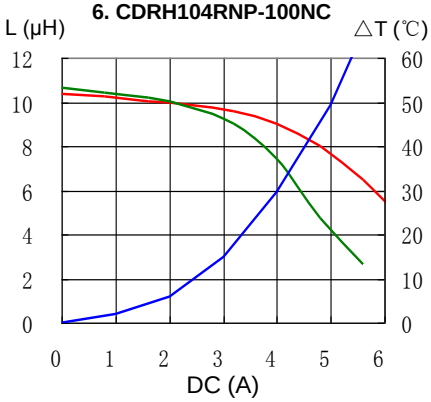

### 4. CDRH104RNP-5R2NC



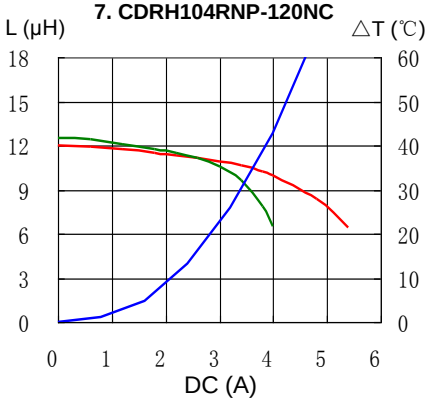

### 5. CDRH104RNP-7R0NC



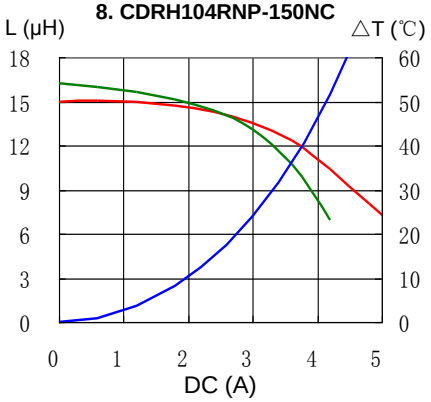

### 6. CDRH104RNP-100NC



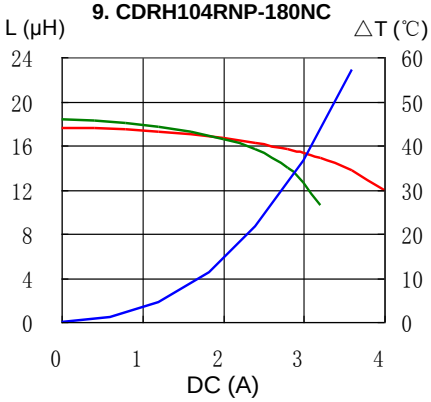

### 7. CDRH104RNP-120NC



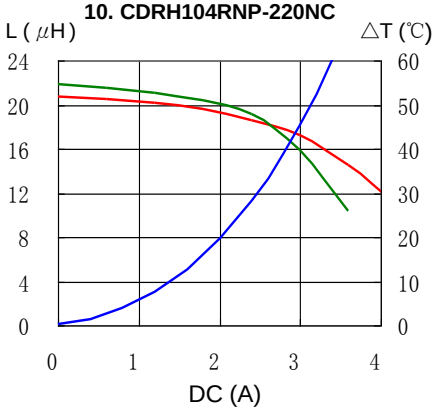

### 8. CDRH104RNP-150NC



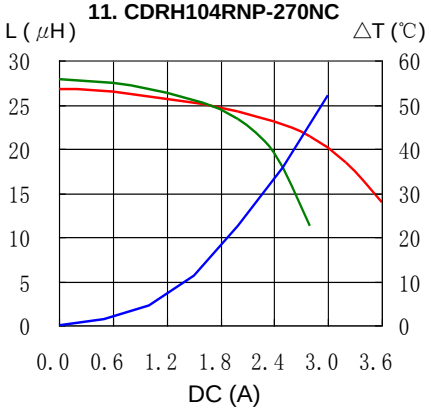

### 9. CDRH104RNP-180NC



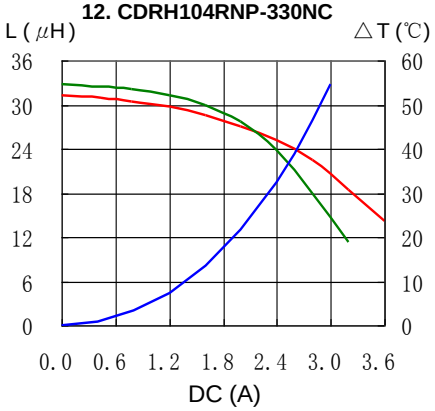

### 10. CDRH104RNP-220NC




### 11. CDRH104RNP-270NC



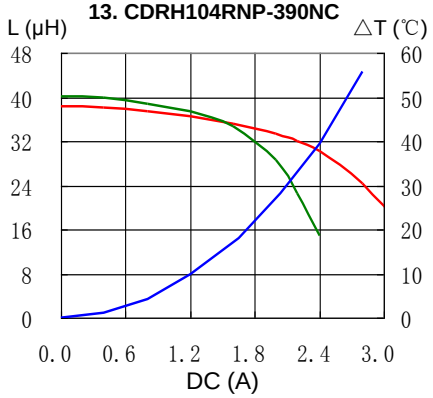

### 12. CDRH104RNP-330NC



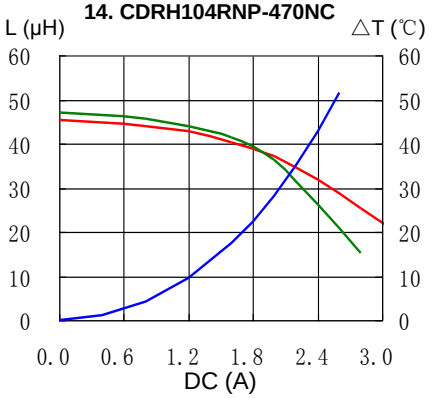
## Saturation Current & Temperature Rise Graph

L (20℃) L (105℃) △T

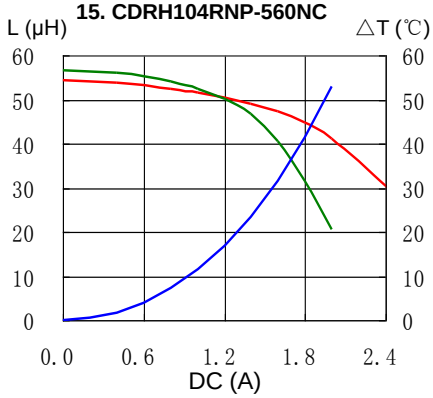
**13. CDRH104RNP-390NC**



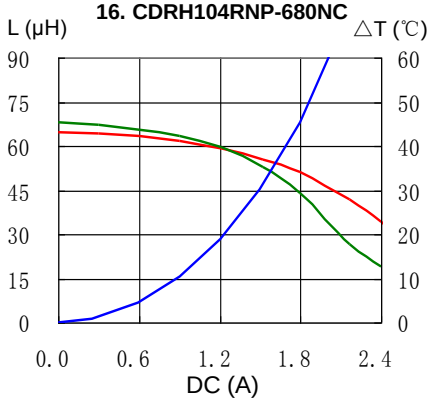

**14. CDRH104RNP-470NC**



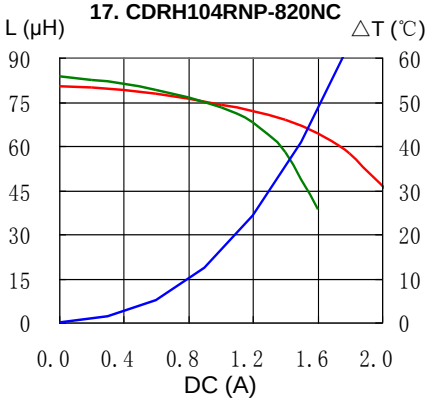

**15. CDRH104RNP-560NC**



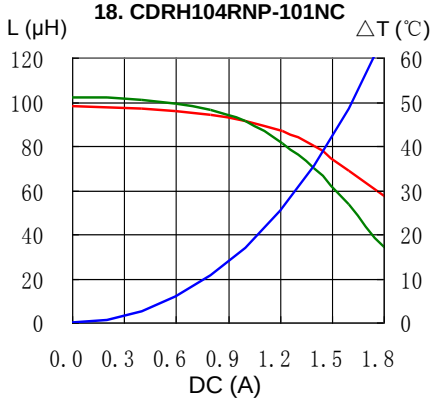

**16. CDRH104RNP-680NC**



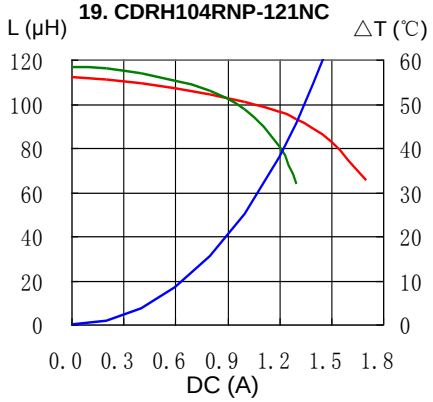

**17. CDRH104RNP-820NC**



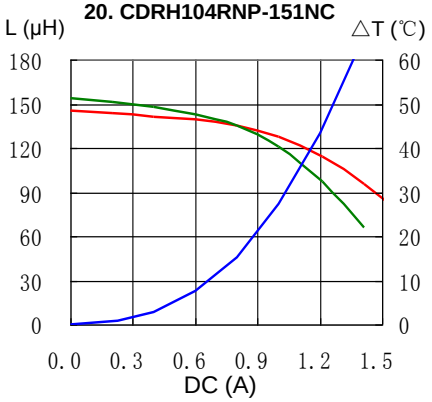

**18. CDRH104RNP-101NC**



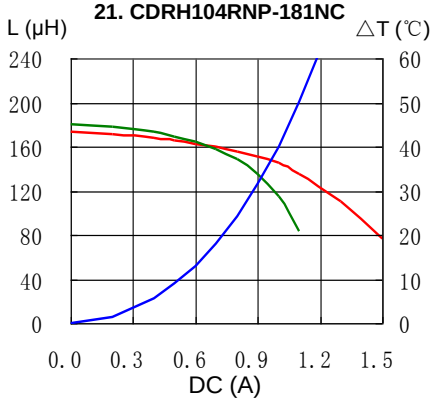

**19. CDRH104RNP-121NC**



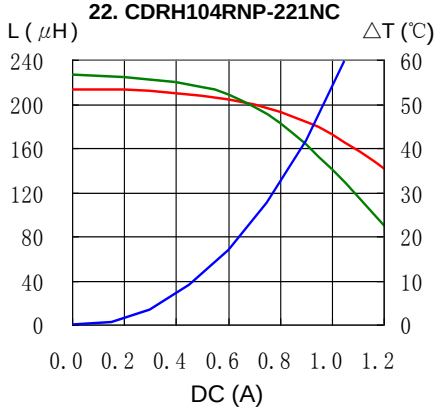

**20. CDRH104RNP-151NC**



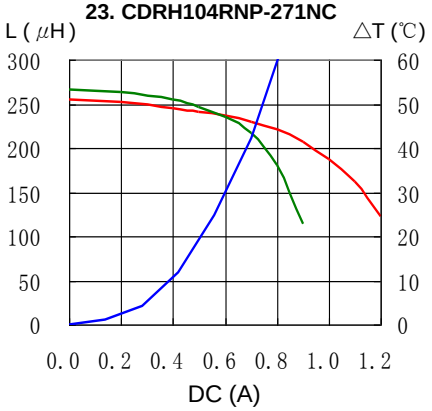

**21. CDRH104RNP-181NC**



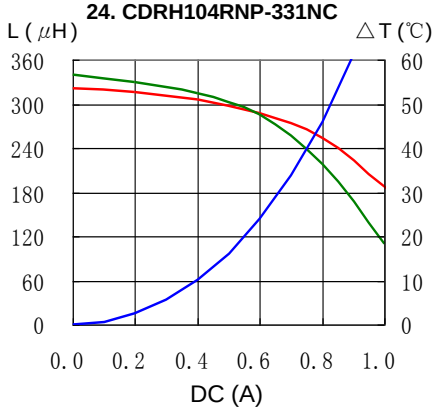

**22. CDRH104RNP-221NC**




**23. CDRH104RNP-271NC**

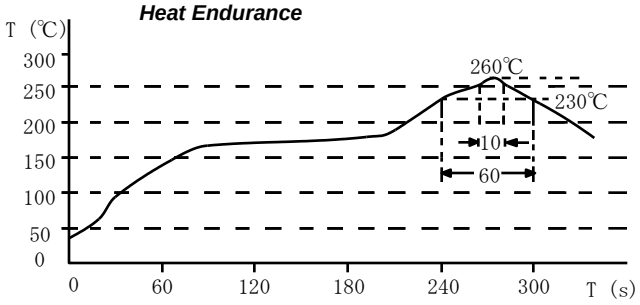



**24. CDRH104RNP-331NC**

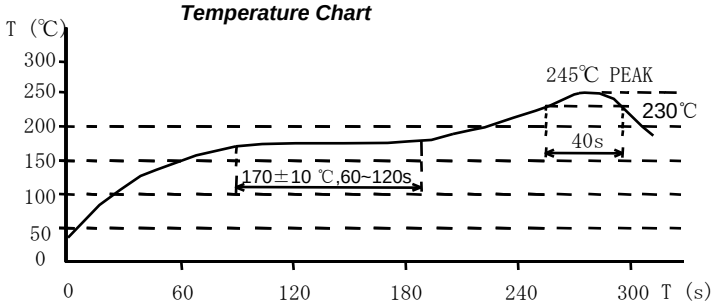


## Solder Reflow Condition

***Heat Endurance***




***Temperature Chart***

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