# SMD Power Inductor
# CDRH10D68



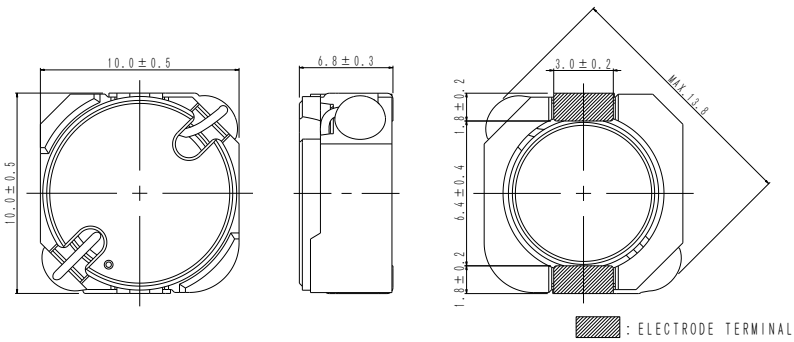
## Description
- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H:10.5 × 10.5 × 7.1 mm Max.
- Product weight: 2.6g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Environmental Data
- Operating temperature range: -40℃～+105℃ (including coil's self temperature rise)
- Storage temperature range: -40℃～+105℃
- Solder reflow temperature: 260 ℃ peak.

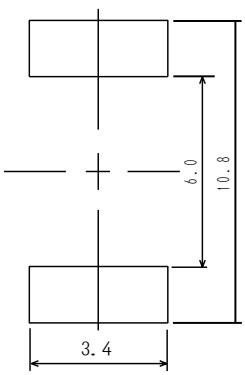
## Packaging
- Carrier tape and reel packaging
- 12.9"diameter reel
- 500pcs per reel

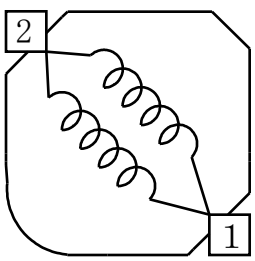
## Applications
- Ideally Used in Notebook PC,DSC/DVC, Game Machine, etc as DC-DC converter inductors.

## Dimension - [mm]

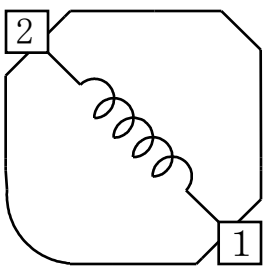



## Land pattern and Schematics - [mm]




(2.2μH～10μH)




(15μH～470μH)



Revised: 6-Jan-17

## Electrical Characteristics

| Part Name | Stamp | Inductance (μH ) [ within ] ※1 | D.C.R .(mΩ) Max. (Typ.) (at 20℃) | Saturation Current (A) ※2 | | Temperature Rise Current (A) ※3 |
|---|---|---|---|---|---|---|
| | | | | at 20℃ | at 105℃ | |
| CDRH10D68NP-2R2NC | 2R2 | 2.2±25% | 7.20(5.7) | 9.8 | 8.0 | 9.0 |
| CDRH10D68NP-3R3NC | 3R3 | 3.3±25% | 8.50(6.8) | 8.4 | 6.8 | 8.0 |
| CDRH10D68NP-4R7NC | 4R7 | 4.7±25% | 9.80(7.9) | 7.9 | 6.5 | 7.0 |
| CDRH10D68NP-6R0NC | 6R0 | 6.0±25% | 14.0(11.2) | 6.5 | 5.2 | 5.5 |
| CDRH10D68NP-8R2NC | 8R2 | 8.2±25% | 15.8(12.7) | 5.1 | 4.0 | 5.3 |
| CDRH10D68NP-100MC | 100 | 10±20% | 21.5(17.2) | 4.8 | 3.8 | 4.4 |
| CDRH10D68NP-150MC | 150 | 15±20% | 34.5(27.6) | 4.5 | 3.6 | 3.6 |
| CDRH10D68NP-180MC | 180 | 18±20% | 37.0(29.7) | 3.6 | 2.9 | 3.4 |
| CDRH10D68NP-220MC | 220 | 22±20% | 40.2(32.1) | 3.0 | 2.6 | 3.2 |
| CDRH10D68NP-330MC | 330 | 33±20% | 60.4(48.3) | 2.7 | 2.2 | 2.6 |
| CDRH10D68NP-470MC | 470 | 47±20% | 106.3(85.0) | 2.4 | 2.0 | 2.1 |
| CDRH10D68NP-680MC | 680 | 68±20% | 149.8(119.8) | 2.0 | 1.6 | 1.7 |
| CDRH10D68NP-820MC | 820 | 82±20% | 163.3(130.6) | 1.7 | 1.4 | 1.6 |
| CDRH10D68NP-101MC | 101 | 100±20% | 205.0(164.3) | 1.5 | 1.2 | 1.5 |
| CDRH10D68NP-151MC | 151 | 150±20% | 291.9(233.5) | 1.3 | 1.1 | 1.3 |
| CDRH10D68NP-181MC | 181 | 180±20% | 325.7(260.6) | 1.2 | 0.9 | 1.2 |
| CDRH10D68NP-221MC | 221 | 220±20% | 362.4(290.0) | 1.0 | 0.8 | 1.1 |
| CDRH10D68NP-331MC | 331 | 330±20% | 525.1(420.1) | 0.8 | 0.6 | 0.9 |
| CDRH10D68NP-471MC | 471 | 470±20% | 739.6(591.7) | 0.7 | 0.5 | 0.8 |

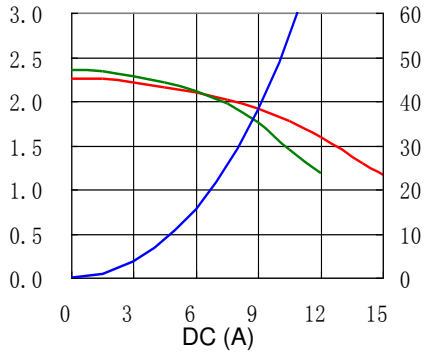
※1 Inductance measuring condition: at 100kHz.
※2 The saturation current: This indicates the value of DC current when the inductance decreases to 65% of it's nominal.
※3 The temperature rise: The value of DC current when the temperature rise is △T＝40℃ (Ta＝20℃).

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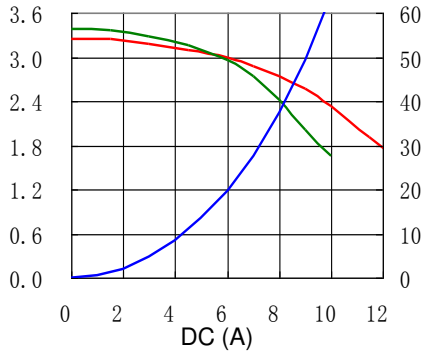
## Saturation Current & Temperature Rise Graph

L (20℃) L (100℃) △T

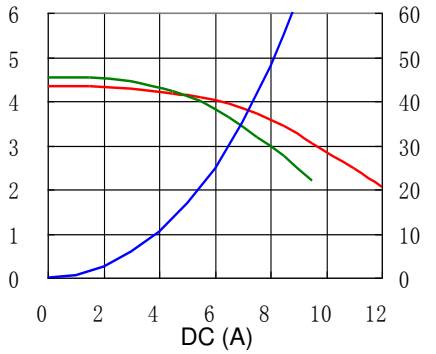
1. CDRH10D68NP-2R2NC



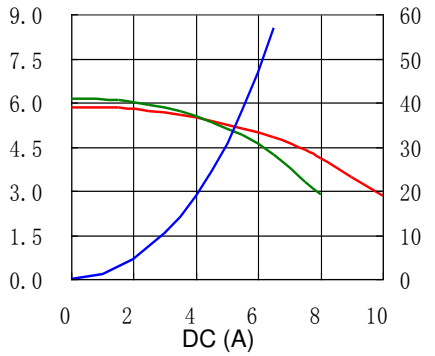

2. CDRH10D68NP-3R3NC



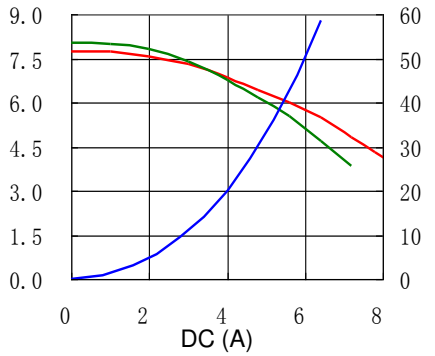

3. CDRH10D68NP-4R7NC



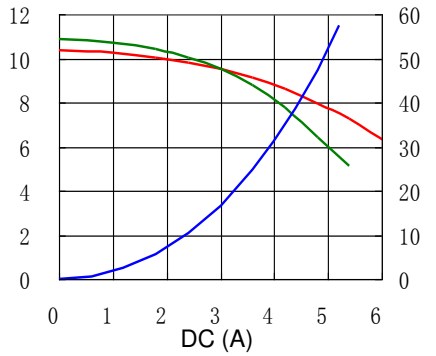

4. CDRH10D68NP-6R0NC



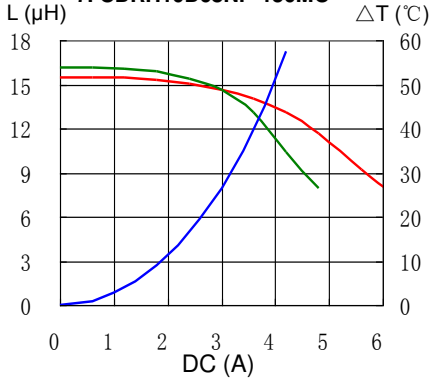

5. CDRH10D68NP-8R2NC



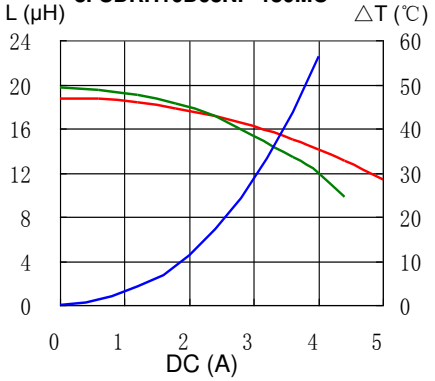

6. CDRH10D68NP-100MC



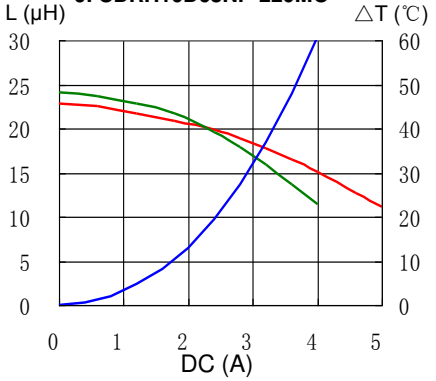

7. CDRH10D68NP-150MC



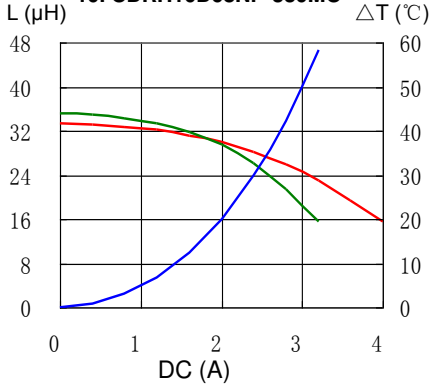

8. CDRH10D68NP-180MC



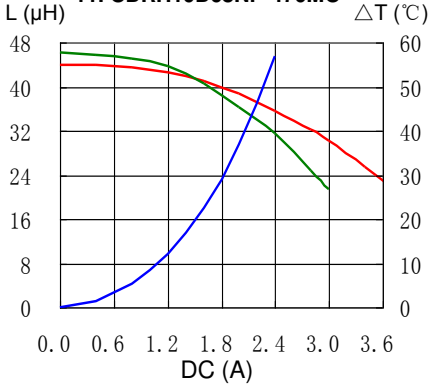

9. CDRH10D68NP-220MC



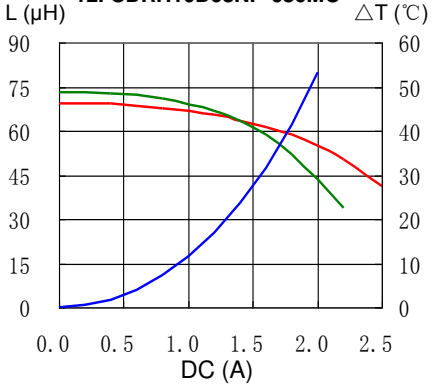

10. CDRH10D68NP-330MC




11. CDRH10D68NP-470MC



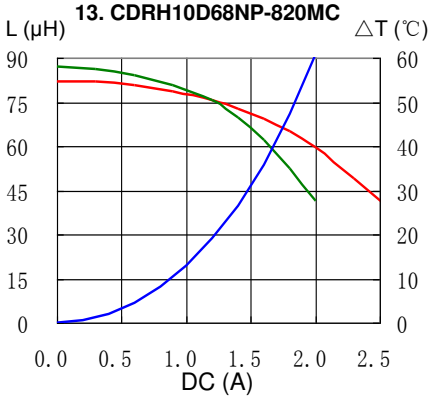

12. CDRH10D68NP-680MC



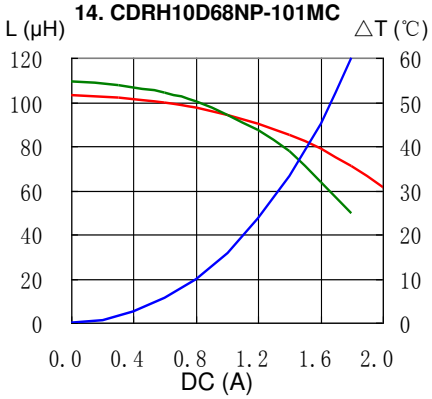
## Saturation Current & Temperature Rise Graph

L (20℃) L (100℃) △T

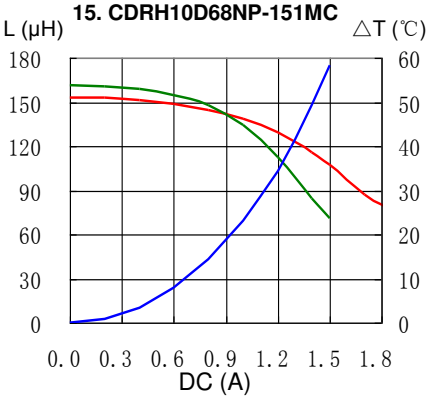
13. CDRH10D68NP-820MC



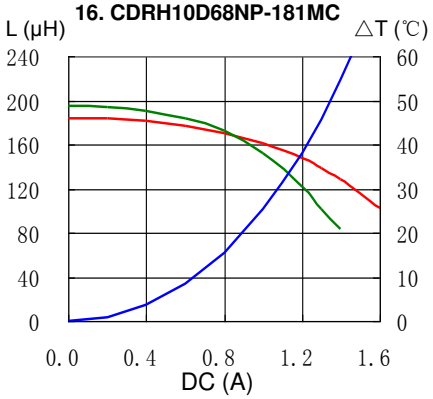

14. CDRH10D68NP-101MC



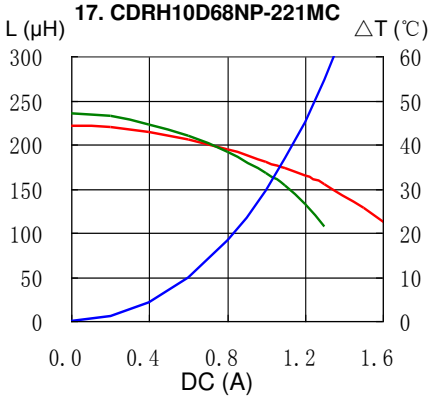

15. CDRH10D68NP-151MC



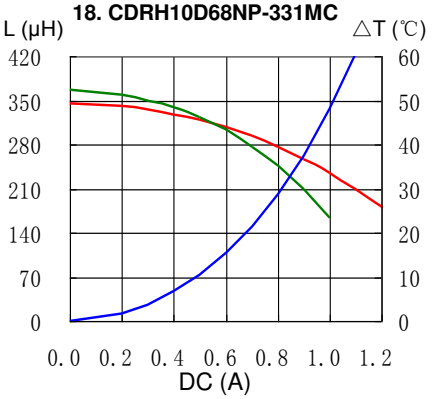

16. CDRH10D68NP-181MC



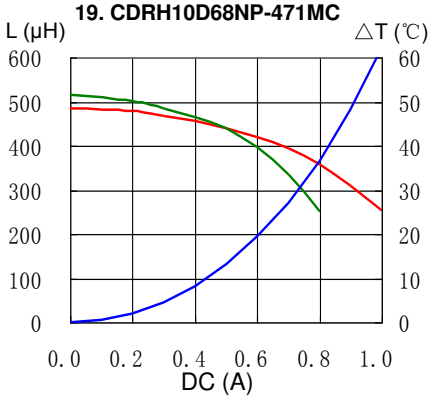

17. CDRH10D68NP-221MC




18. CDRH10D68NP-331MC

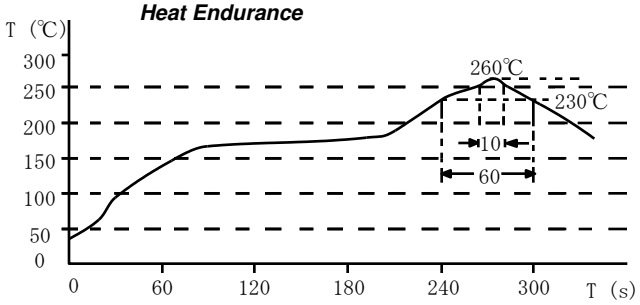



19. CDRH10D68NP-471MC

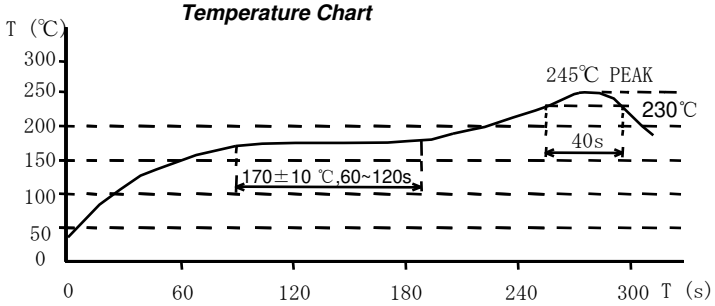


## Solder Reflow Condition

***Heat Endurance***




***Temperature Chart***




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