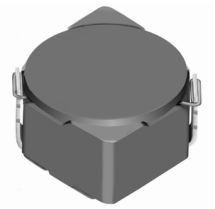
# THE DATASHEET OF

# CDRH6D38-220NC

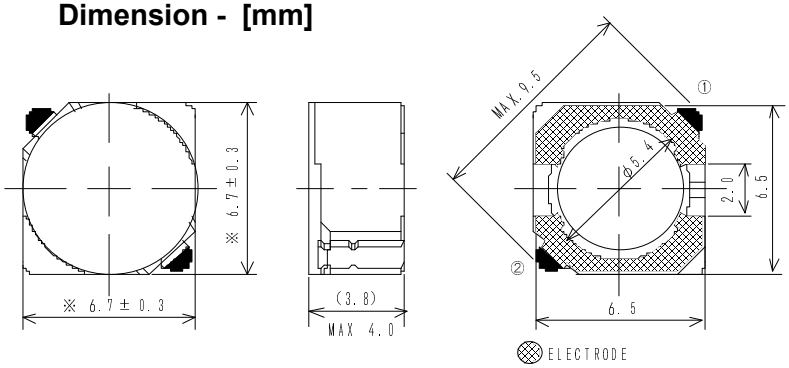
# SMD Power Inductor
## CDRH6D38

RoHS

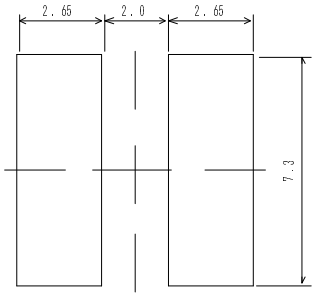
Halogen Free

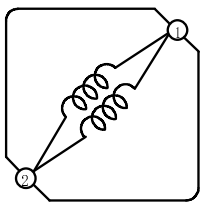


### Dimension - [mm]

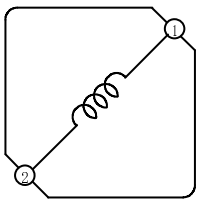



### Land pattern and Schematics - [mm]




(3.3μH～15μH)




(18μH～100μH)

### Description
- Ferrite drum core construction.
- Magnetically shielded.
- L×W×H:7.0×7.0×4.0 mm Max.
- Product weight: 0.6g(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 Game machine, HDD, Notebook PC, Projector, PDA, etc as DC-DC converter inductors.



Revised: 7-Jan-14

## Electrical Characteristics

| Part Name | Stamp | Inductance ( μH ) [ within ] ※1 | D.C.R.(Ω) Max. (Typ.) (at 20℃) | Rated Current (A) ※2 |
|---|---|---|---|---|
| CDRH6D38NP-3R3NC | 3R3 | 3.3±30% | 20m (15m) | 3.50 |
| CDRH6D38NP-5R0NC | 5R0 | 5.0±30% | 24m (18m) | 2.90 |
| CDRH6D38NP-6R2NC | 6R2 | 6.2±30% | 27m (20m) | 2.50 |
| CDRH6D38NP-7R4NC | 7R4 | 7.4±30% | 31m (23m) | 2.30 |
| CDRH6D38NP-8R7NC | 8R7 | 8.7±30% | 34m (25m) | 2.20 |
| CDRH6D38NP-100NC | 100 | 10±30% | 38m (28m) | 2.00 |
| CDRH6D38NP-120NC | 120 | 12±30% | 53m (39m) | 1.70 |
| CDRH6D38NP-150NC | 150 | 15±30% | 57m (42m) | 1.60 |
| CDRH6D38NP-180NC | 180 | 18±30% | 92m (68m) | 1.50 |
| CDRH6D38NP-220NC | 220 | 22±30% | 96m (71m) | 1.30 |
| CDRH6D38NP-270NC | 270 | 27±30% | 109m (81m) | 1.20 |
| CDRH6D38NP-330NC | 330 | 33±30% | 124m (92m) | 1.10 |
| CDRH6D38NP-390NC | 390 | 39±30% | 138m(102m) | 1.00 |
| CDRH6D38NP-470NC | 470 | 47±30% | 155m(115m) | 0.95 |
| CDRH6D38NP-560NC | 560 | 56±30% | 202m(150m) | 0.85 |
| CDRH6D38NP-680NC | 680 | 68±30% | 234m(173m) | 0.75 |
| CDRH6D38NP-820NC | 820 | 82±30% | 324m(240m) | 0.70 |
| CDRH6D38NP-101NC | 101 | 100±30% | 358m(265m) | 0.65 |

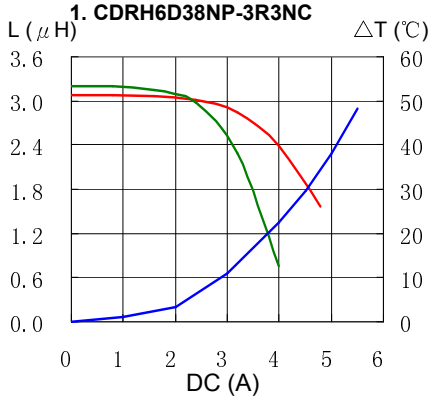
※1. Inductance measuring condition:  at 100kHz.

※2. Rated current: The DC current at which the inductance decreases to 65% of it's nominal value or when △t=30℃, whichever is lower (Ta=20℃).

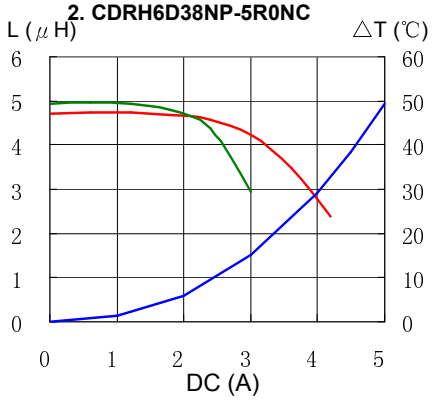
## Saturation Current & Temperature Rise Graph

L (20℃) L (105℃) △T

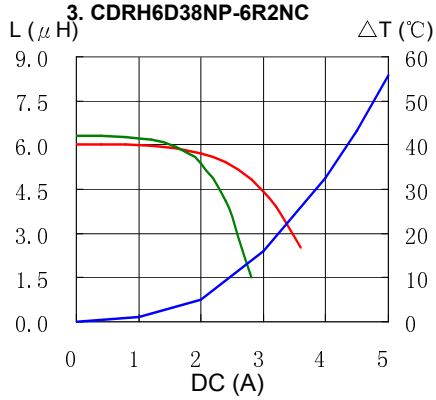
1. CDRH6D38NP-3R3NC



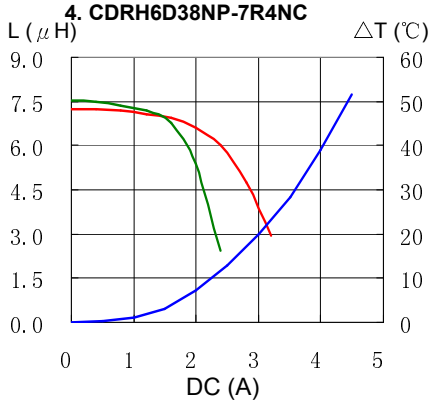

2. CDRH6D38NP-5R0NC



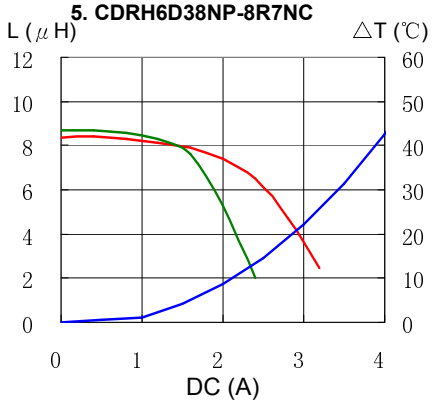

3. CDRH6D38NP-6R2NC



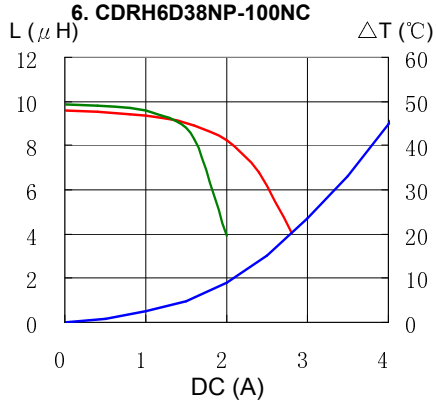

4. CDRH6D38NP-7R4NC



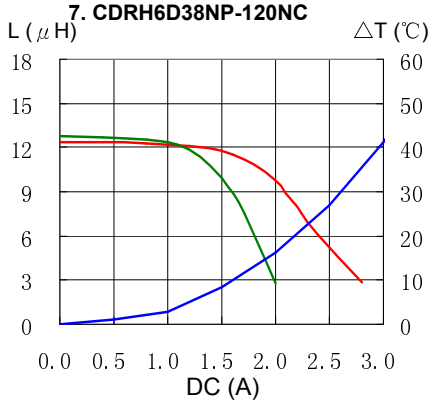

5. CDRH6D38NP-8R7NC



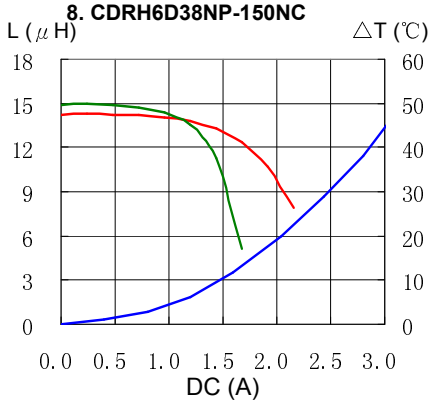

6. CDRH6D38NP-100NC



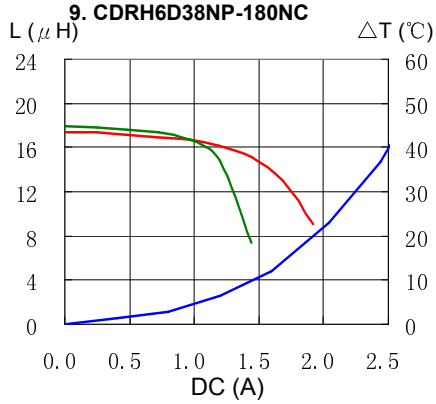

7. CDRH6D38NP-120NC



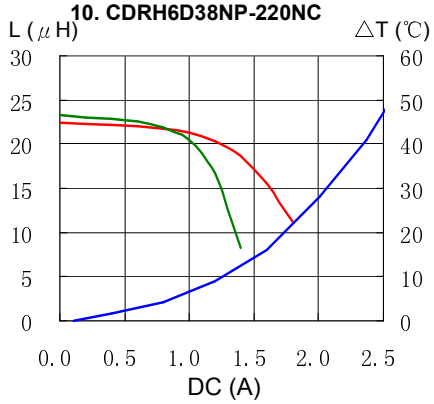

8. CDRH6D38NP-150NC



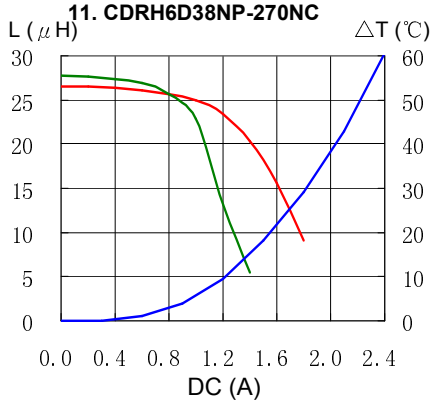

9. CDRH6D38NP-180NC



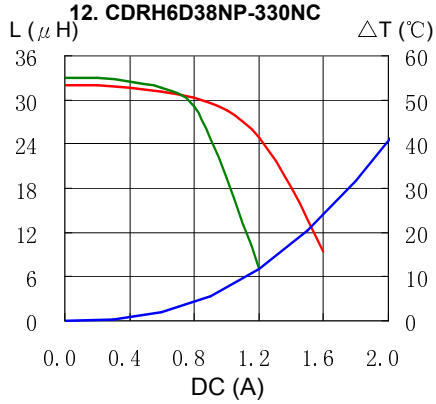

10. CDRH6D38NP-220NC




11. CDRH6D38NP-270NC




12. CDRH6D38NP-330NC

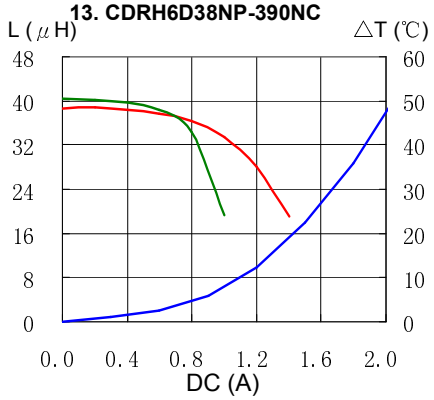


# SMD Power Inductor
## CDRH6D38

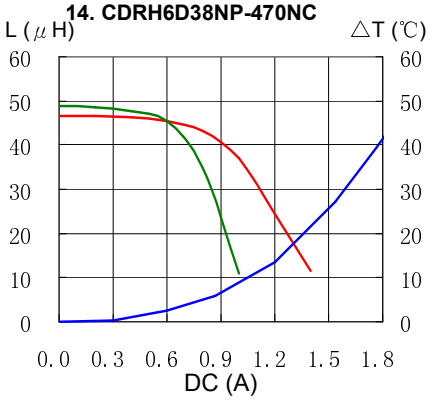
## Saturation Current & Temperature Rise Graph

L (20℃) L (105℃) △T

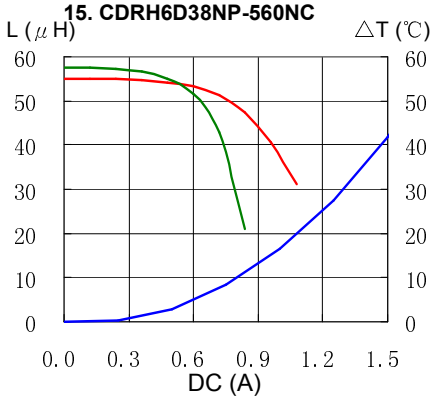
13. CDRH6D38NP-390NC



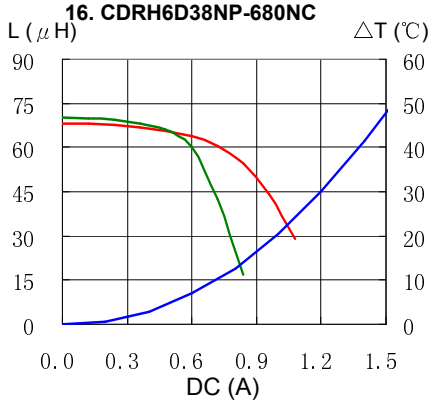

14. CDRH6D38NP-470NC



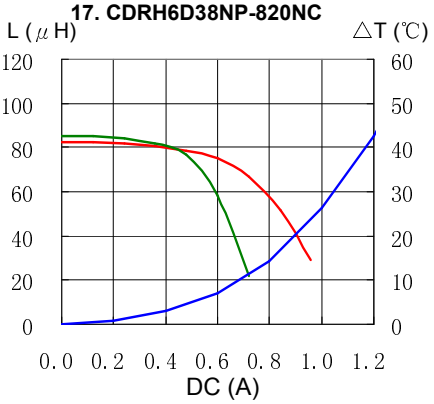

15. CDRH6D38NP-560NC



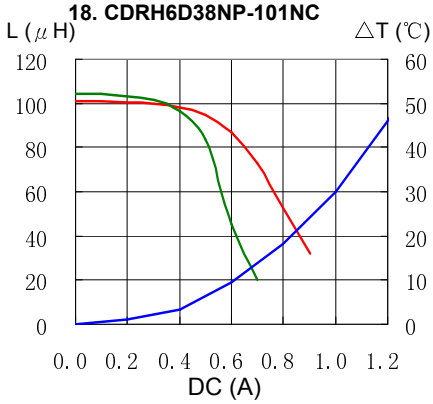

16. CDRH6D38NP-680NC




17. CDRH6D38NP-820NC

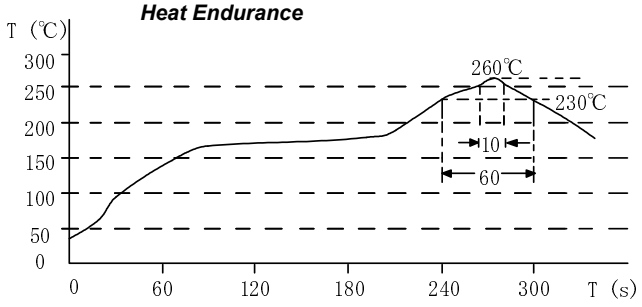



18. CDRH6D38NP-101NC

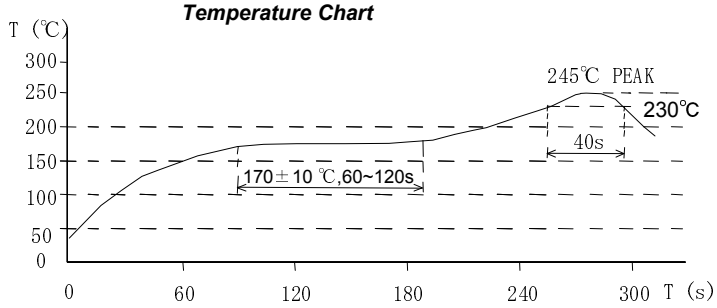



## Solder Reflow Condition

*Heat Endurance*




*Temperature Chart*

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