

SMD Power Inductor CDRH8D38



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 8.3 × 8.3 × 4.0 mm Max.
- Product weight: 0.9 g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

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.

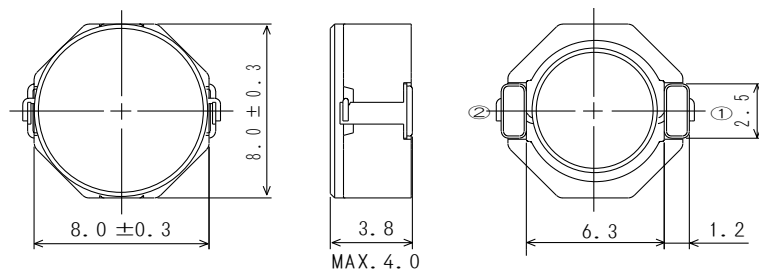
Packaging

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

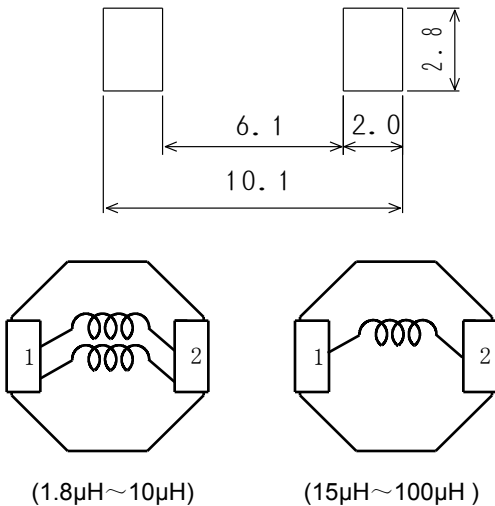
Applications

- Ideally used in PDA, HDD, DSC/DVC, etc as DC-DC converter inductors.

Dimension - [mm]



Land pattern and Schematics - [mm]



SMD Power Inductor

CDRH8D38



Electrical Characteristics

| Part Name | Stamp | Inductance (μH) [within] ※1 | D.C.R. (m Ω) Max. (Typ.) (at 20°C) | Saturation Current (A) ※2 | | Temperature Rise Current (A) ※3 |
|------------------|-------|--|--|------------------------------|------------|---------------------------------------|
| | | | | (at 20°C) | (at 105°C) | |
| CDRH8D38NP-1R8NC | 1R8 | 1.8 $\mu\text{H} \pm 30\%$ | 15.6(12.5) | 7.00 | 6.20 | 6.80 |
| CDRH8D38NP-2R5NC | 2R5 | 2.5 $\mu\text{H} \pm 30\%$ | 17.5(14) | 6.50 | 5.50 | 6.00 |
| CDRH8D38NP-3R5NC | 3R5 | 3.5 $\mu\text{H} \pm 30\%$ | 24(19) | 5.00 | 4.40 | 5.20 |
| CDRH8D38NP-4R7NC | 4R7 | 4.7 $\mu\text{H} \pm 30\%$ | 29(23) | 4.60 | 4.00 | 4.40 |
| CDRH8D38NP-6R0NC | 6R0 | 6.0 $\mu\text{H} \pm 30\%$ | 32(25) | 4.20 | 3.50 | 4.00 |
| CDRH8D38NP-100NC | 100 | 10 $\mu\text{H} \pm 30\%$ | 48(38) | 3.00 | 2.60 | 3.20 |
| CDRH8D38NP-150NC | 150 | 15 $\mu\text{H} \pm 30\%$ | 67(53) | 2.75 | 2.30 | 2.50 |
| CDRH8D38NP-220NC | 220 | 22 $\mu\text{H} \pm 30\%$ | 105(84) | 2.30 | 1.88 | 2.00 |
| CDRH8D38NP-330NC | 330 | 33 $\mu\text{H} \pm 30\%$ | 157(125) | 1.75 | 1.52 | 1.60 |
| CDRH8D38NP-470NC | 470 | 47 $\mu\text{H} \pm 30\%$ | 189(151) | 1.52 | 1.28 | 1.42 |
| CDRH8D38NP-680NC | 680 | 68 $\mu\text{H} \pm 30\%$ | 290(232) | 1.30 | 1.10 | 1.08 |
| CDRH8D38NP-101NC | 101 | 100 $\mu\text{H} \pm 30\%$ | 410(328) | 1.05 | 0.88 | 0.88 |

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 65% of it's nominal value.

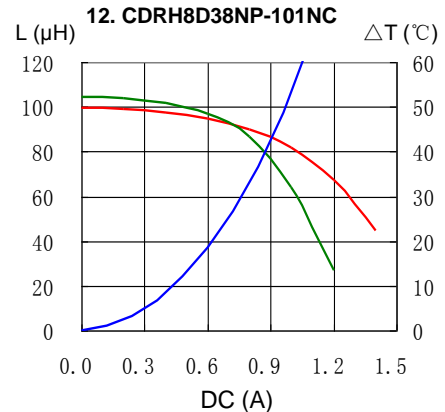
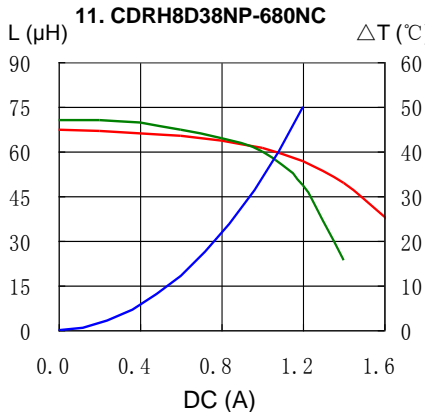
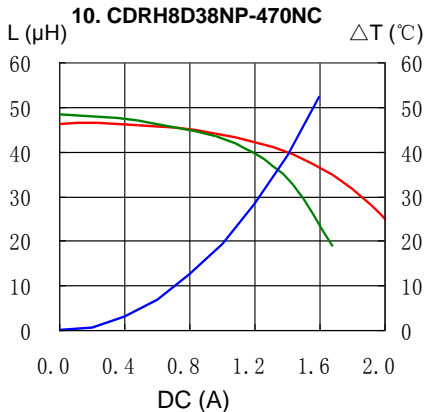
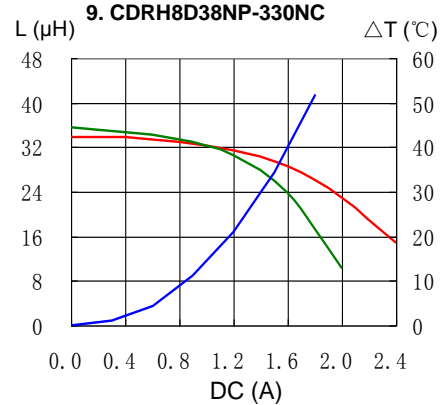
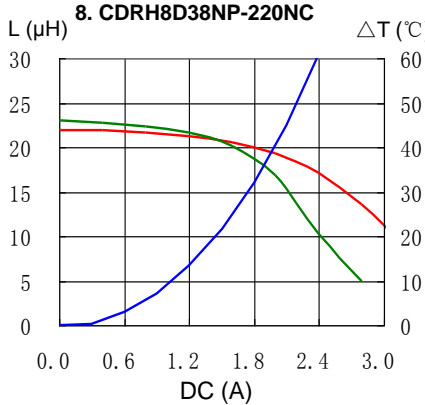
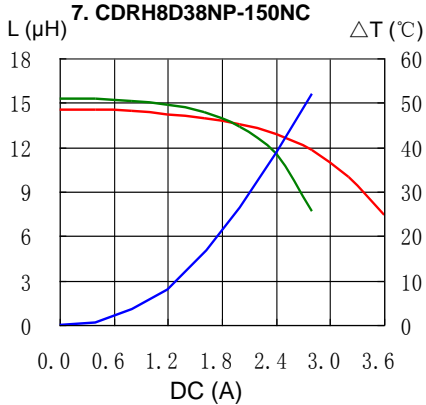
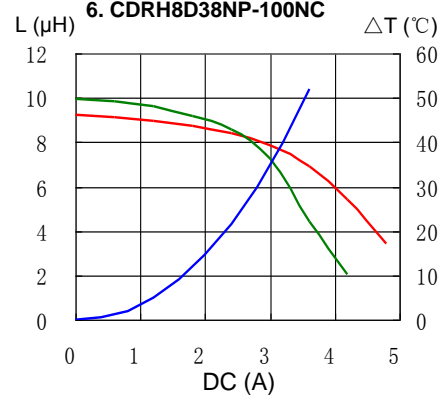
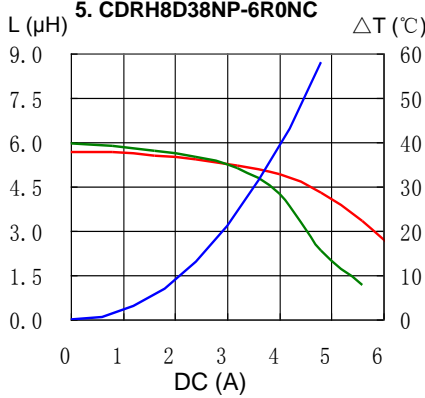
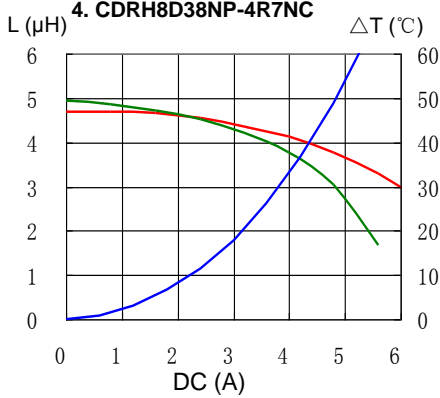
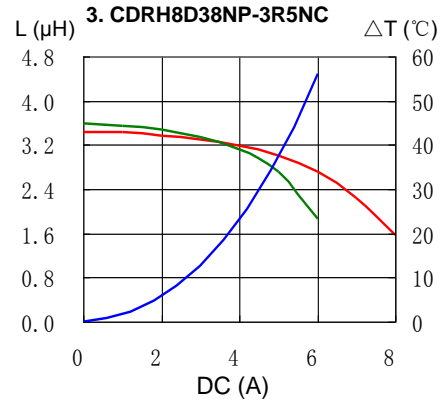
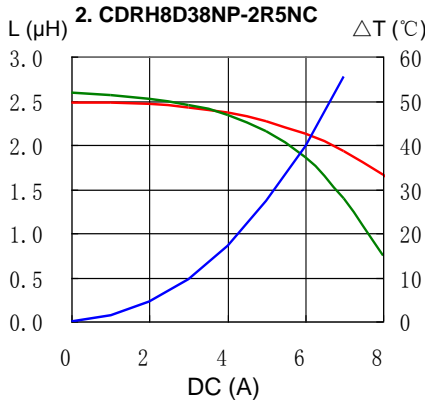
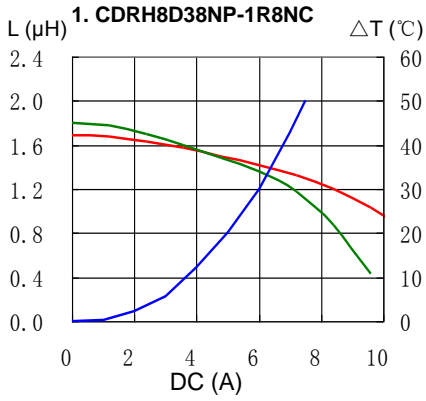
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t = 40^\circ\text{C}$ ($T_a = 20^\circ\text{C}$).

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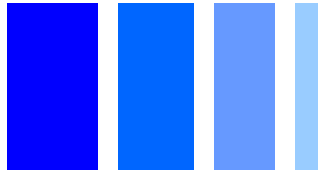


Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

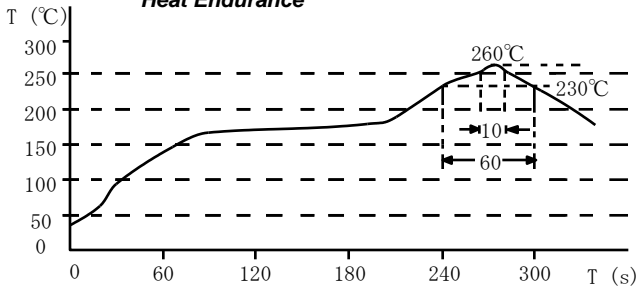


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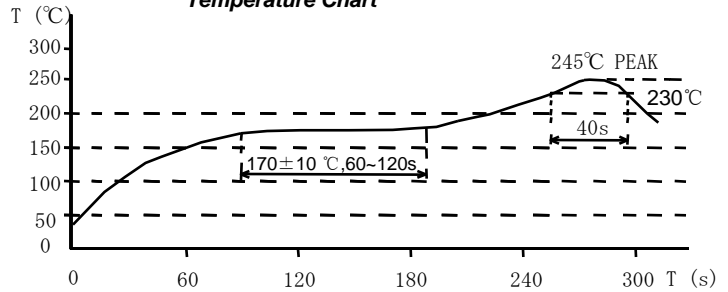


Solder Reflow Condition

Heat Endurance



Temperature Chart



Please refer to the sales offices on our website - <http://www.sumida.com>

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