

SMD Power Inductor CDR10D48MN



Halogen Free



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 10.3 × 10.3 × 5.0 mm Max.
- Product weight: 1.8g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

Environmental Data

- Operating temperature range: -40°C~+105°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+105°C
- Solder reflow temperature: 260 °C peak.

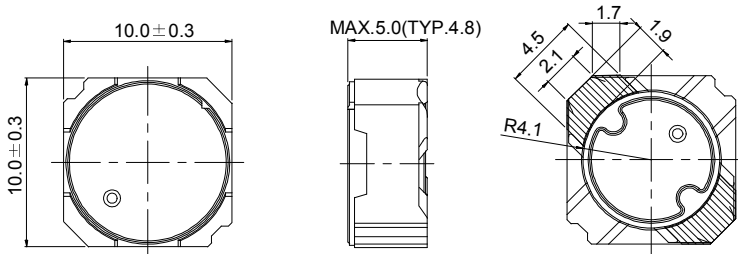
Packaging

- Carrier tape and reel packaging.
- 13.0" diameter reel
- 500pcs per reel

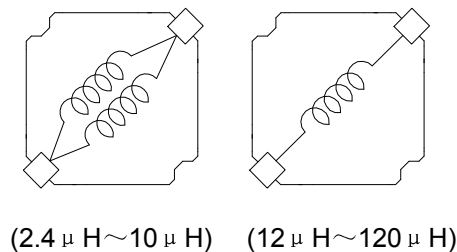
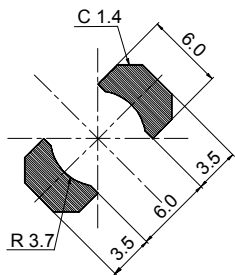
Applications

- Ideally used in LCD Driver ,DSC/DVC, Notebook PC etc as DC-DC converter inductors.

Dimension - [mm]



Land pattern and Schematics - [mm]



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CDR10D48MN



Electrical Characteristics

| PART NAME | STAMP | INDUCTANCE [WITHIN] ※1 | D.C.R. (mΩ) MAX.. (Typ.) (at 20°C) | SATURATION CURRENT (A) ※2 | | TEMPERATURE RISE CURRENT (A) ※3 |
|--------------------|-------|---------------------------|--|------------------------------|-----------|---------------------------------------|
| | | | | (at20°C) | (at105°C) | |
| CDR10D48MNNP-2R4NC | 2R4 | 2.4 μ H ±25% | 12.5(10.0) | 11.5 | 9.2 | 9.6 |
| CDR10D48MNNP-3R6NC | 3R6 | 3.6 μ H ±25% | 15.0(12.0) | 9.4 | 7.7 | 8.2 |
| CDR10D48MNNP-5R0NC | 5R0 | 5.0 μ H ±25% | 16.9(13.5) | 8.0 | 6.5 | 6.8 |
| CDR10D48MNNP-6R6NC | 6R6 | 6.6 μ H ±25% | 22.5(18.0) | 7.1 | 5.7 | 5.7 |
| CDR10D48MNNP-8R5NC | 8R5 | 8.5 μ H ±25% | 28.8(23.0) | 6.3 | 5.1 | 4.8 |
| CDR10D48MNNP-100NC | 100 | 10 μ H ±25% | 40.0(32.0) | 5.5 | 4.4 | 4.3 |
| CDR10D48MNNP-120NC | 120 | 12 μ H ±25% | 42.5(34.0) | 4.9 | 4.1 | 3.6 |
| CDR10D48MNNP-150NC | 150 | 15 μ H ±25% | 46.0(37.0) | 4.5 | 3.6 | 3.4 |
| CDR10D48MNNP-180NC | 180 | 18 μ H ±25% | 50.0(40.0) | 4.1 | 3.4 | 3.2 |
| CDR10D48MNNP-220NC | 220 | 22 μ H ±25% | 56.0(45.0) | 4.0 | 3.2 | 2.8 |
| CDR10D48MNNP-270NC | 270 | 27 μ H ±25% | 63.0(50.0) | 3.6 | 2.9 | 2.7 |
| CDR10D48MNNP-330NC | 330 | 33 μ H ±25% | 90.0(70.0) | 3.1 | 2.5 | 2.1 |
| CDR10D48MNNP-390NC | 390 | 39 μ H ±25% | 105.0(85.0) | 3.0 | 2.4 | 1.9 |
| CDR10D48MNNP-470NC | 470 | 47 μ H ±25% | 120.0(95.0) | 2.6 | 2.1 | 1.8 |
| CDR10D48MNNP-560NC | 560 | 56 μ H ±25% | 150.0(120) | 2.4 | 2.0 | 1.6 |
| CDR10D48MNNP-680NC | 680 | 68 μ H ±25% | 175.0(140) | 2.1 | 1.8 | 1.5 |
| CDR10D48MNNP-820NC | 820 | 82 μ H ±25% | 220.0(175) | 2.0 | 1.6 | 1.3 |
| CDR10D48MNNP-101NC | 101 | 100 μ H ±25% | 275.0(220) | 1.8 | 1.5 | 1.1 |
| CDR10D48MNNP-121NC | 121 | 120 μ H ±25% | 312.5(250) | 1.6 | 1.3 | 1.0 |

※1. Measuring condition: at 100kHz.

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

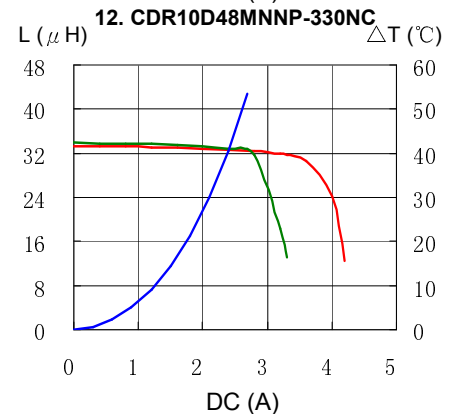
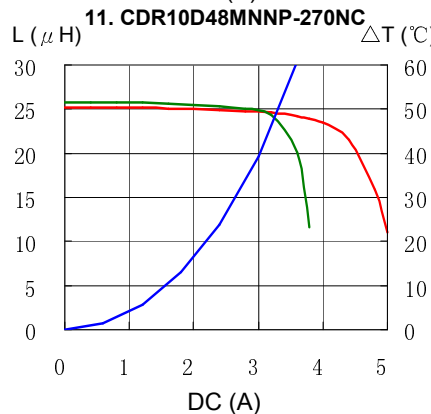
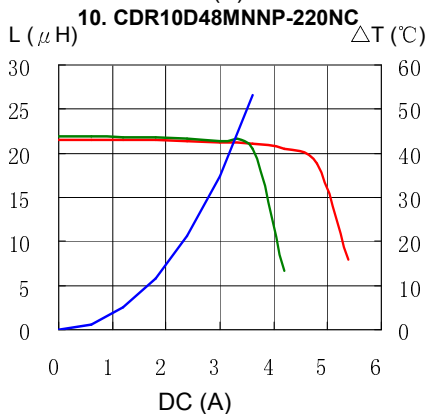
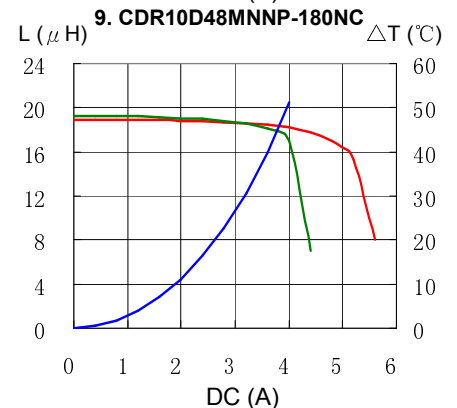
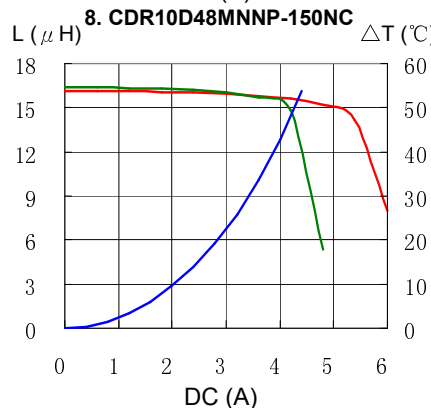
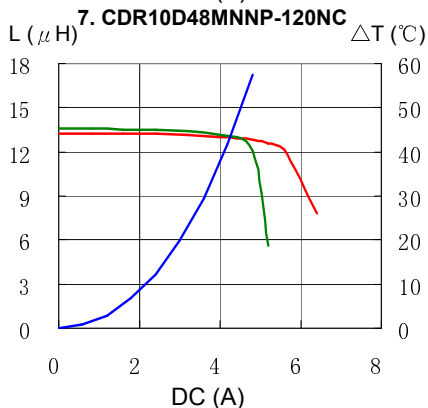
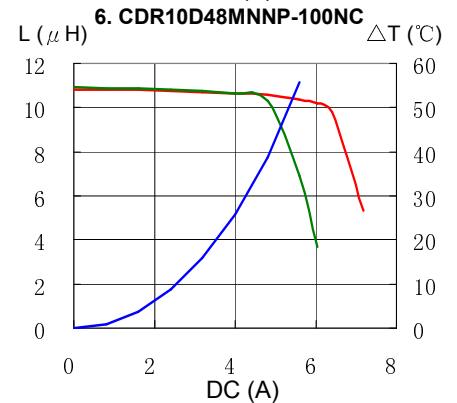
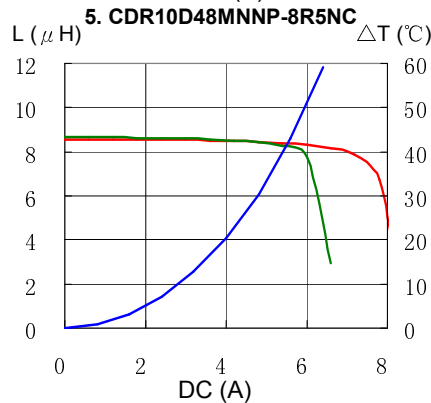
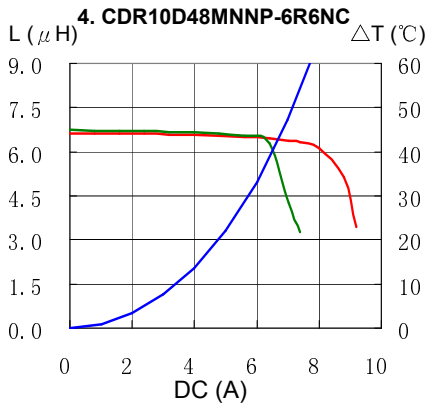
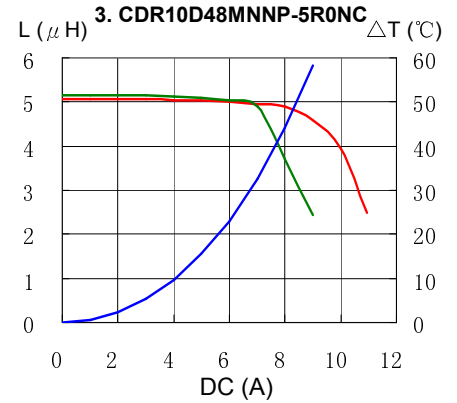
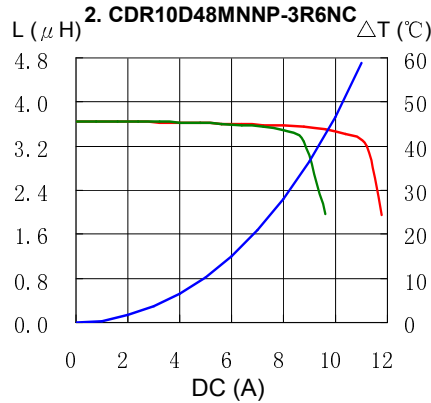
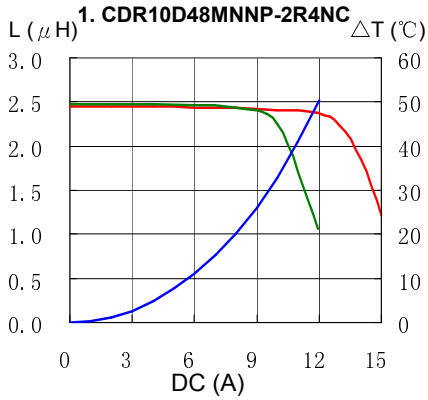
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t=40^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$).

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) — ΔT

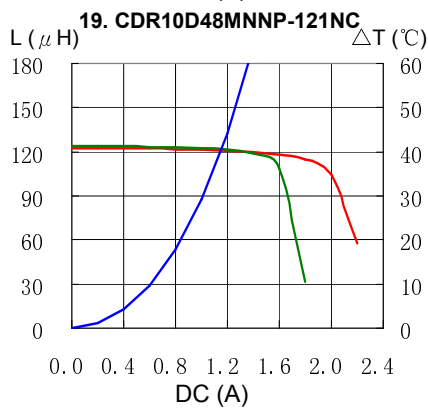
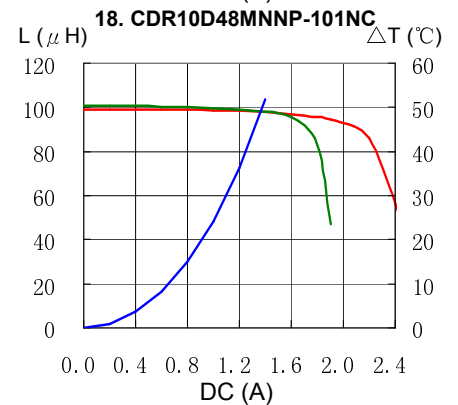
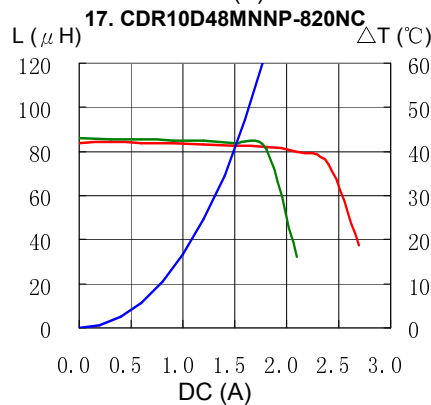
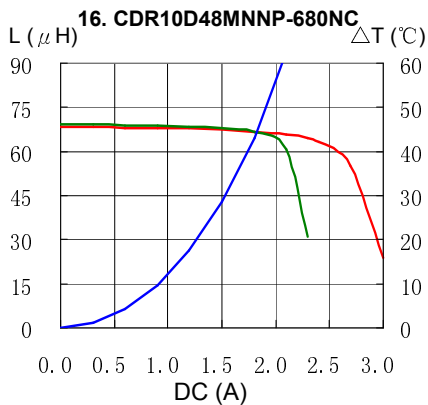
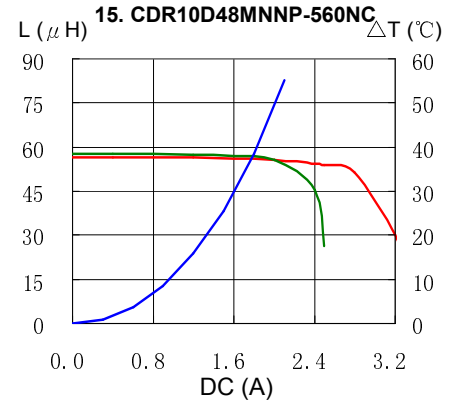
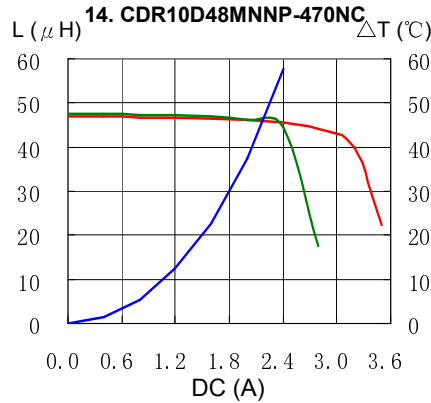
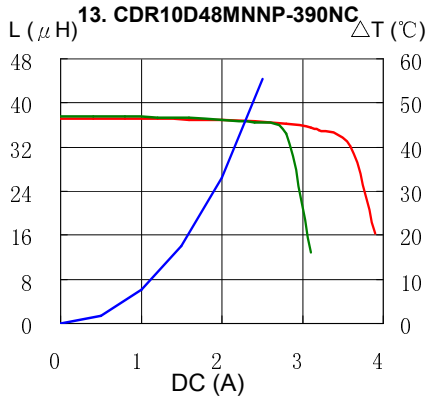


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Saturation Current & Temperature Rise Graph

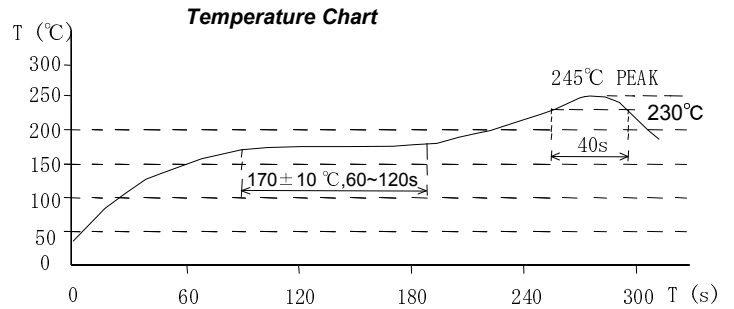
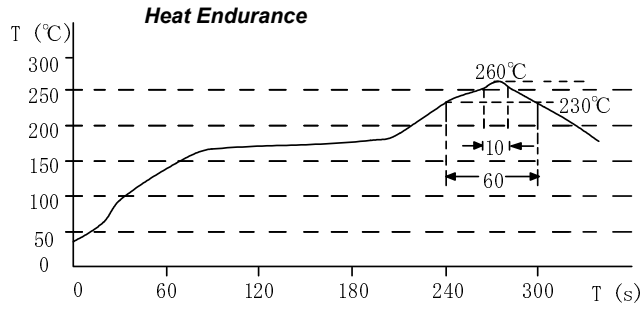
— L (20°C) — L (105°C) — ΔT



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Solder Reflow Condition



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

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