

PIN Power Inductor RP1315B



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 13.0 × 13.0 × 15.0mm Max.
- Product weight: 6.1g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

Environmental Data

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

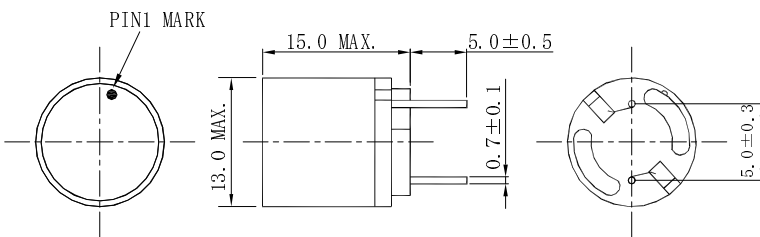
Packaging

- Box packaging.

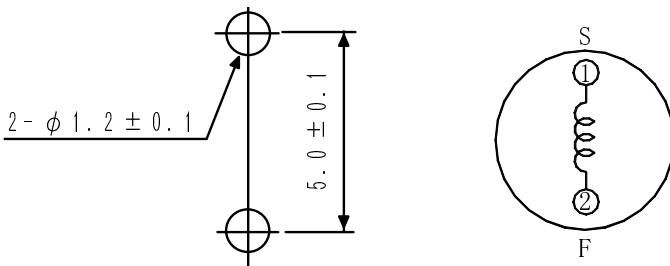
Applications

- Ideally used in Printers, LCD TV, DVD, Copy Machine ,etc as DC-DC Converter inductors.

Dimension - [mm]



Land pattern and Schematics - [mm]



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Electrical Characteristics

| Part No. | Stamp | Inductance [Within] ※1 | D.C.R. (mΩ) [Max.] (Typ.) (at 20°C) | Saturation current (A) ※2 | | Temperature rise Current (A) ※3 |
|----------------|-------|---------------------------|---|------------------------------|------------|------------------------------------|
| | | | | (at 20°C) | (at 105°C) | |
| RP1315BNP-100M | 100M | 10 μH ± 20% | 18.5(14.8) | 8.10 | 6.20 | 6.20 |
| RP1315BNP-120M | 120M | 12 μH ± 20% | 19.3(15.5) | 7.68 | 6.00 | 5.85 |
| RP1315BNP-150M | 150M | 15 μH ± 20% | 32.4(25.9) | 6.52 | 5.12 | 5.31 |
| RP1315BNP-180M | 180M | 18 μH ± 20% | 34.4(27.5) | 6.00 | 4.72 | 5.00 |
| RP1315BNP-220M | 220M | 22 μH ± 20% | 47.8(38.3) | 5.36 | 4.36 | 4.00 |
| RP1315BNP-270M | 270M | 27 μH ± 20% | 60.8(48.7) | 4.88 | 3.79 | 3.40 |
| RP1315BNP-330M | 330M | 33 μH ± 20% | 73.6(58.9) | 4.20 | 3.20 | 2.80 |
| RP1315BNP-390M | 390M | 39 μH ± 20% | 80.1(64.1) | 3.90 | 3.10 | 2.70 |
| RP1315BNP-470M | 470M | 47 μH ± 20% | 101.8(81.4) | 3.76 | 3.00 | 2.36 |
| RP1315BNP-560M | 560M | 56 μH ± 20% | 115.3(92.2) | 3.26 | 2.61 | 2.30 |
| RP1315BNP-680M | 680M | 68 μH ± 20% | 165.0(132.1) | 3.00 | 2.40 | 1.90 |
| RP1315BNP-820M | 820M | 82 μH ± 20% | 182.5(146.0) | 2.73 | 2.21 | 1.81 |
| RP1315BNP-101M | 101M | 100 μH ± 20% | 264.0(211.2) | 2.46 | 1.95 | 1.43 |
| RP1315BNP-121M | 121M | 120 μH ± 20% | 293.4(234.7) | 2.16 | 1.80 | 1.38 |
| RP1315BNP-151M | 151M | 150 μH ± 20% | 333.0(266.5) | 1.97 | 1.57 | 1.27 |
| RP1315BNP-181M | 181M | 180 μH ± 20% | 364.4(291.5) | 1.82 | 1.46 | 1.25 |
| RP1315BNP-221M | 221M | 220 μH ± 20% | 413.0(330.5) | 1.65 | 1.33 | 1.15 |
| RP1315BNP-331M | 331M | 330 μH ± 20% | 580.0(465.0) | 1.36 | 1.06 | 0.98 |
| RP1315BNP-471M | 471M | 470 μH ± 20% | 802.0(641.5) | 1.13 | 0.90 | 0.82 |
| RP1315BNP-561M | 561M | 560 μH ± 20% | 890.0(712.0) | 1.04 | 0.83 | 0.80 |
| RP1315BNP-681M | 681M | 680 μH ± 20% | 1139.0(911) | 0.95 | 0.77 | 0.68 |
| RP1315BNP-821M | 821M | 820 μH ± 20% | 1300.0(1040) | 0.87 | 0.70 | 0.66 |
| RP1315BNP-102M | 102M | 1000 μH ± 20% | 1975.0(1580) | 0.74 | 0.61 | 0.51 |

※1. Inductance measuring condition: at 100 kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 90% of it's nominal value.

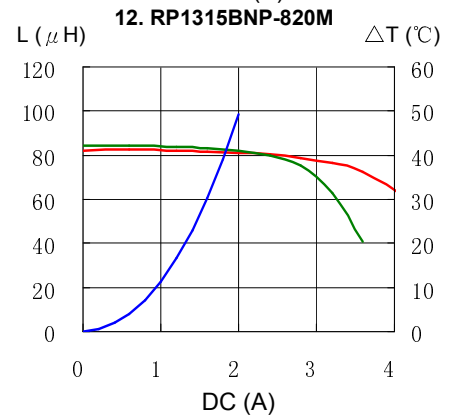
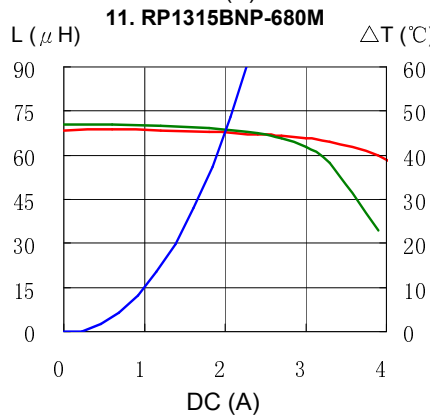
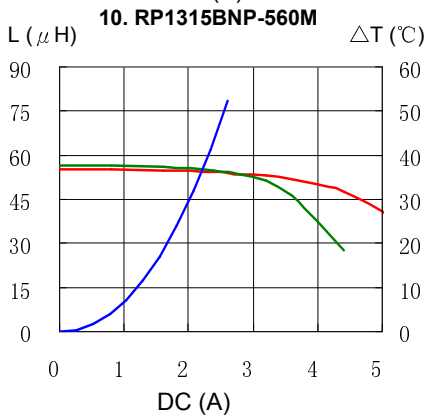
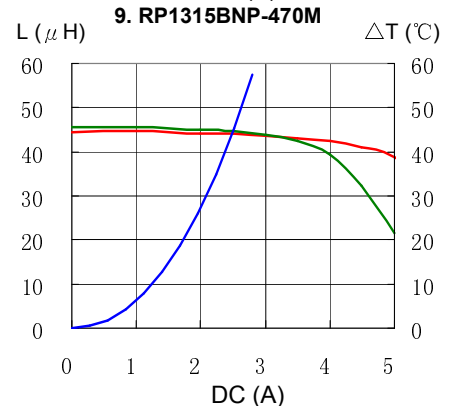
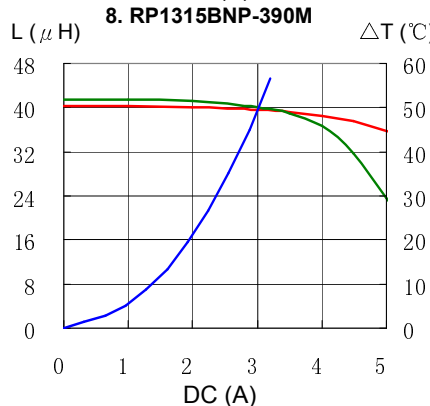
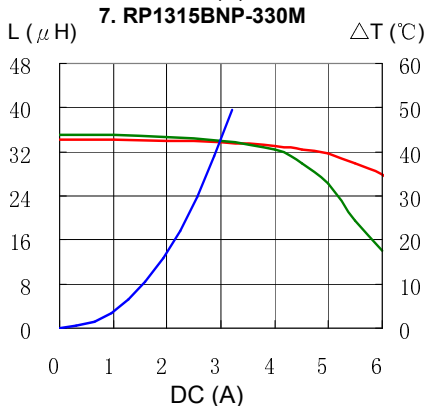
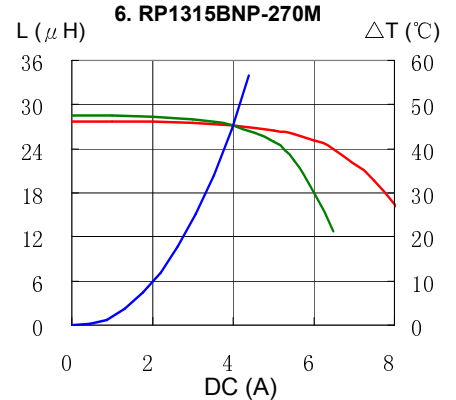
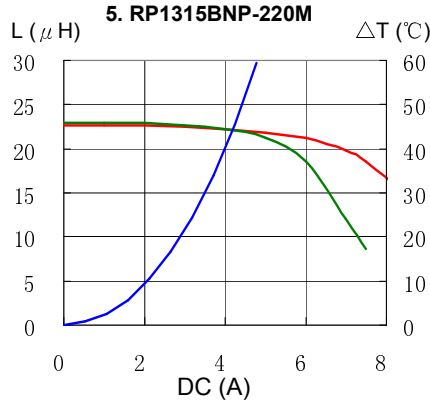
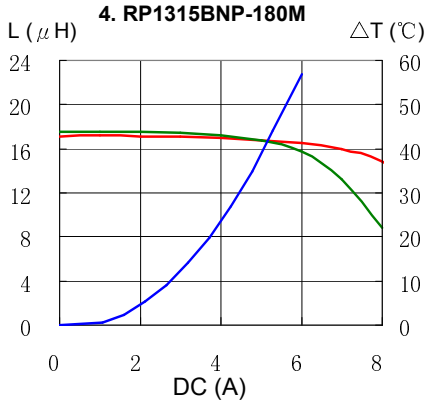
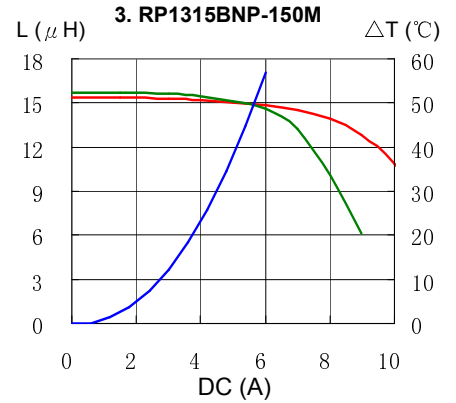
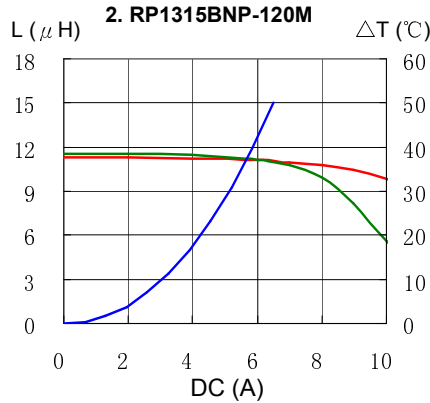
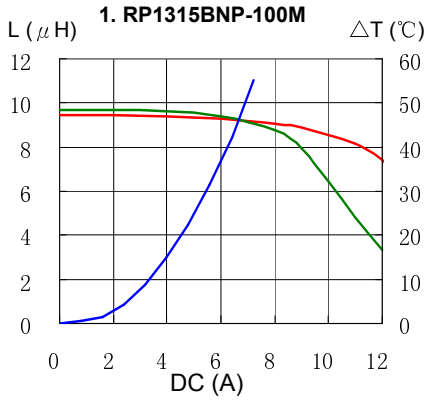
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t=40^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$).

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) — ΔT

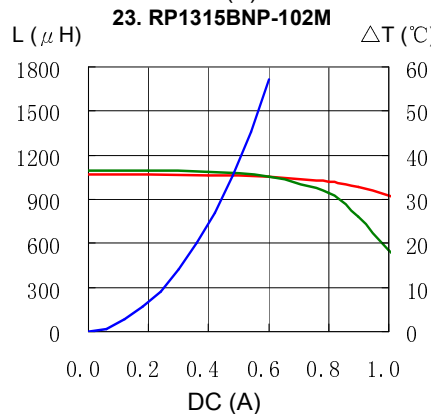
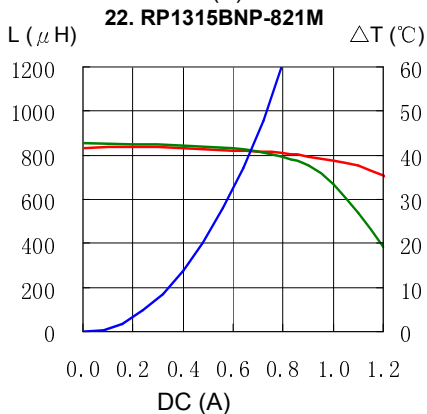
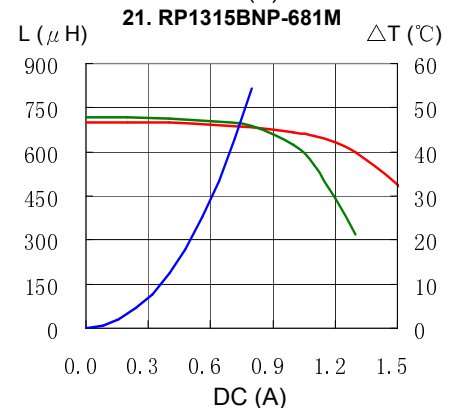
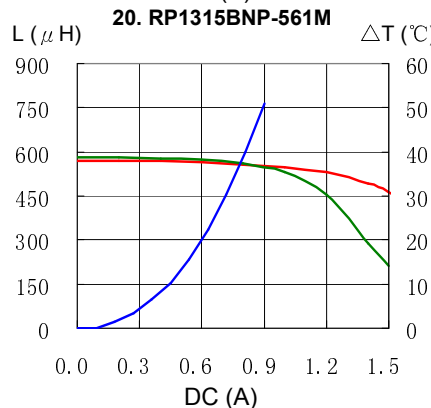
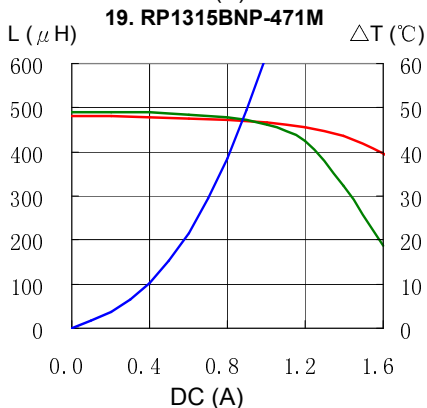
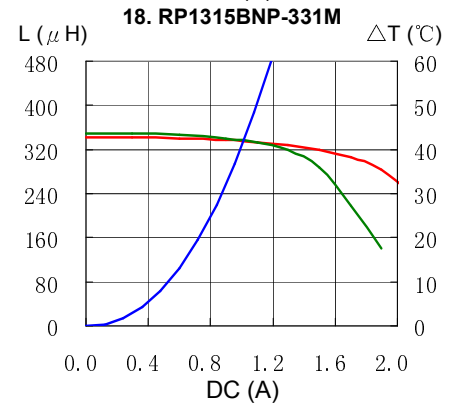
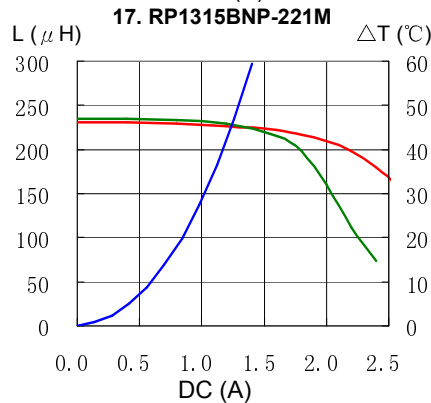
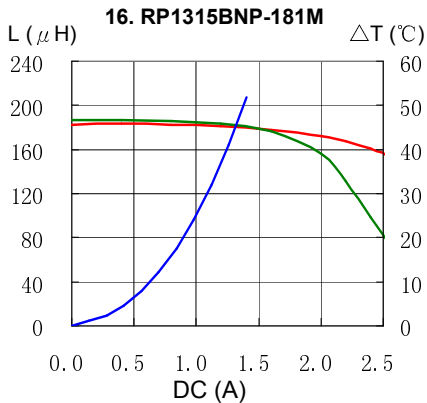
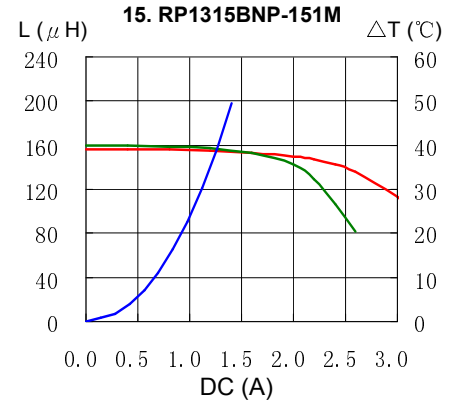
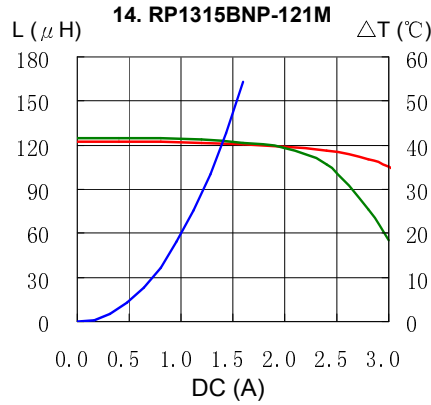
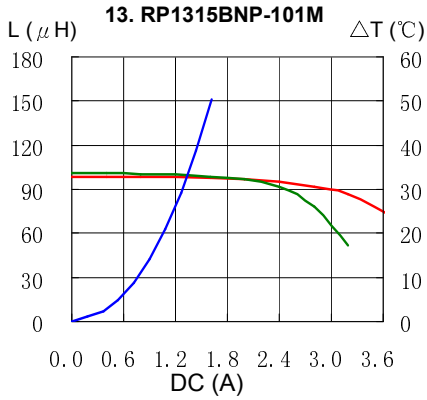


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) — ΔT



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