

PIN Power Inductor RCH114



Halogen
Free



Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 10.5 × 10.5 × 14.4mm Max.
- Product weight: 4.1g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

Environmental Data

- Operating temperature range: -40°C~+100°C
(including coil's self temperature rise)
- Storage temperature range: -40°C~+100°C

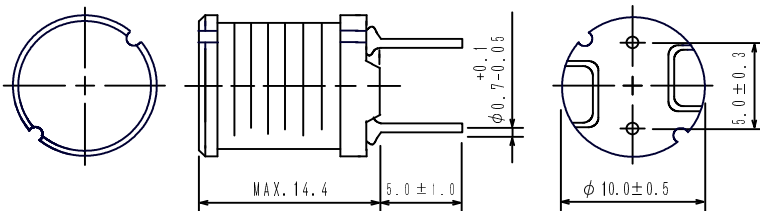
Packaging

- Box packaging.

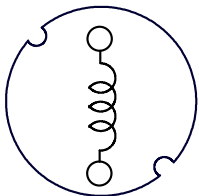
Applications

- Ideally used in Printers, LCD TV, DVD, Copy Machine, Main board of the compounding machines etc. as DC-DC Converter inductors.

Dimension - [mm]



Schematics - [mm]



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Electrical Characteristics

| Part Name | Stamp | Inductance (μ H) (Within) ※1 | D.C.R.(Ω) Max. (Typ.) at 20°C | Rated Current (A) ※2 |
|--|-------------------|--|--|-------------------------|
| RCH114NP-6R3MB RCH114NP-7R5MB RCH114NP-8R8MB | 6R3 7R5 8R8 | 6.3 μ H \pm 20 % 7.5 μ H \pm 20 % 8.8 μ H \pm 20 % | 26m(20)m 29m(22m) 30m(23m) | 4.3 4.2 4.1 |
| RCH114NP-100KB RCH114NP-120KB RCH114NP-150KB | 100 120 150 | 10 μ H \pm 10 % 12 μ H \pm 10 % 15 μ H \pm 10 % | 33m(25m) 35m(27m) 39m(30m) | 4.0 3.9 3.7 |
| RCH114NP-180KB RCH114NP-220KB RCH114NP-270KB | 180 220 270 | 18 μ H \pm 10 % 22 μ H \pm 10 % 27 μ H \pm 10 % | 47m(36m) 51m(39m) 57m(44m) | 3.5 3.3 3.1 |
| RCH114NP-330KB RCH114NP-390KB RCH114NP-470KB | 330 390 470 | 33 μ H \pm 10 % 39 μ H \pm 10 % 47 μ H \pm 10 % | 64m(49m) 74m(57m) 83m(64m) | 2.9 2.7 2.5 |
| RCH114NP-560KB RCH114NP-680KB RCH114NP-820KB | 560 680 820 | 56 μ H \pm 10 % 68 μ H \pm 10 % 82 μ H \pm 10 % | 104m(80m) 117m(90m) 130m(100m) | 2.3 2.1 1.9 |
| RCH114NP-101KB RCH114NP-121KB RCH114NP-151KB | 101 121 151 | 100 μ H \pm 10 % 120 μ H \pm 10 % 150 μ H \pm 10 % | 143m(110m) 195m(150m) 221m(170m) | 1.7 1.5 1.4 |
| RCH114NP-181KB RCH114NP-221KB RCH114NP-271KB | 181 221 271 | 180 μ H \pm 10 % 220 μ H \pm 10 % 270 μ H \pm 10 % | 0.26(0.20) 0.35(0.27) 0.39(0.30) | 1.3 1.2 1.1 |
| RCH114NP-331KB RCH114NP-391KB RCH114NP-471KB | 331 391 471 | 330 μ H \pm 10 % 390 μ H \pm 10 % 470 μ H \pm 10 % | 0.52(0.40) 0.57(0.44) 0.65(0.50) | 1.0 0.92 0.84 |
| RCH114NP-561KB RCH114NP-681KB RCH114NP-821KB | 561 681 821 | 560 μ H \pm 10 % 680 μ H \pm 10 % 820 μ H \pm 10 % | 0.79(0.61) 0.96(0.74) 1.22(0.94) | 0.75 0.69 0.62 |
| RCH114NP-102KB RCH114NP-122KB RCH114NP-152KB | 102 122 152 | 1.0 mH \pm 10 % 1.2 mH \pm 10 % 1.5 mH \pm 10 % | 1.6(1.3) 2.2(1.8) 2.5(2.0) | 0.52 0.46 0.41 |
| RCH114NP-182KB RCH114NP-222KB RCH114NP-272KB | 182 222 272 | 1.8 mH \pm 10 % 2.2 mH \pm 10 % 2.7 mH \pm 10 % | 2.9(2.3) 3.2(2.6) 3.7(3.0) | 0.36 0.32 0.29 |
| RCH114NP-332KB RCH114NP-392KB RCH114NP-472KB | 332 392 472 | 3.3 mH \pm 10 % 3.9 mH \pm 10 % 4.7 mH \pm 10 % | 5.0(4.0) 5.6(4.5) 7.4(5.9) | 0.27 0.25 0.23 |
| RCH114NP-562KB RCH114NP-682KB RCH114NP-822KB | 562 682 822 | 5.6 mH \pm 10 % 6.8 mH \pm 10 % 8.2 mH \pm 10 % | 8.2(6.6) 11.9(9.5) 14(11) | 0.21 0.19 0.17 |
| RCH114NP-103KB RCH114NP-123KB RCH114NP-153KB | 103 123 153 | 10 mH \pm 10 % 12 mH \pm 10 % 15 mH \pm 10 % | 16(13) 21(17) 24(19) | 0.16 0.15 0.14 |
| RCH114NP-183KB RCH114NP-223KB RCH114NP-273KB | 183 223 273 | 18 mH \pm 10 % 22 mH \pm 10 % 27 mH \pm 10 % | 27(22) 34(27) 39(31) | 0.13 0.12 0.11 |
| RCH114NP-333KB RCH114NP-393KB | 333 393 | 33 mH \pm 10 % 39 mH \pm 10 % | 51(41) 58(46) | 0.10 0.09 |

※1 : Inductance measuring condition : 6.3 μ H ~ 8.8 μ H at 7.96 MHz
10 μ H ~ 39 mH at 1.0 kHz

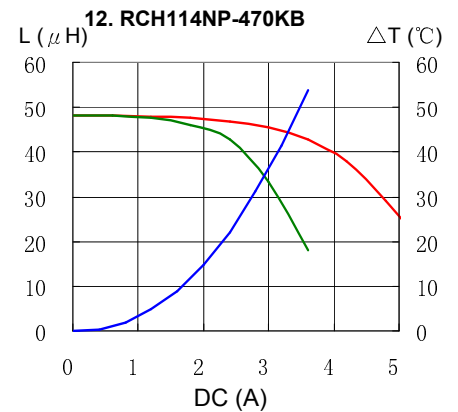
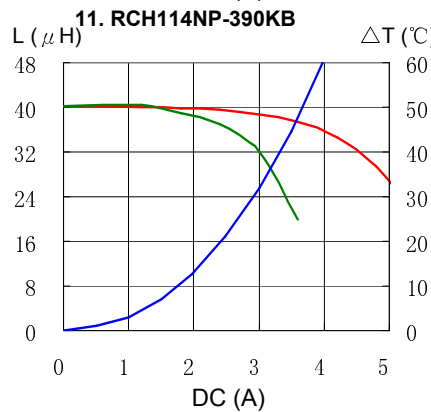
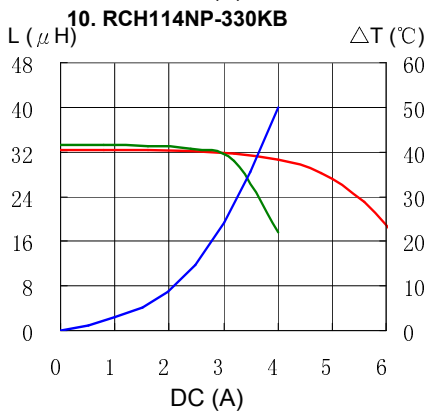
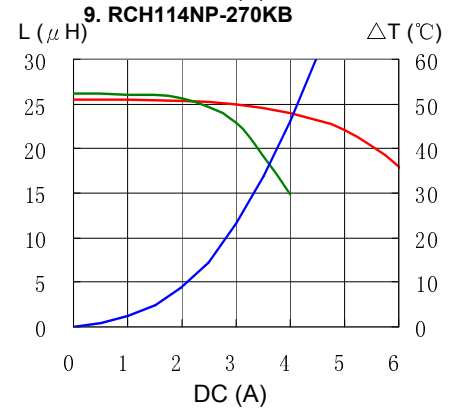
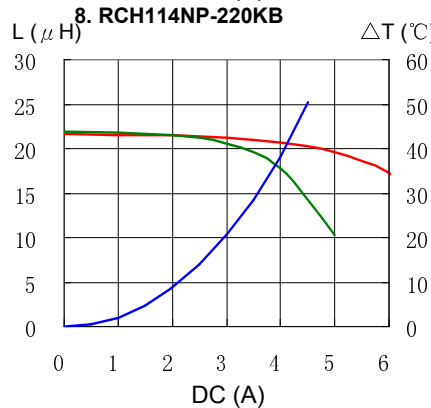
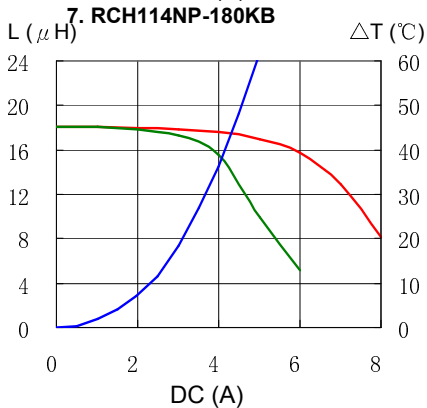
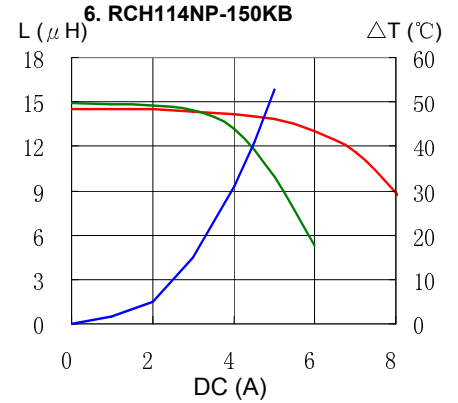
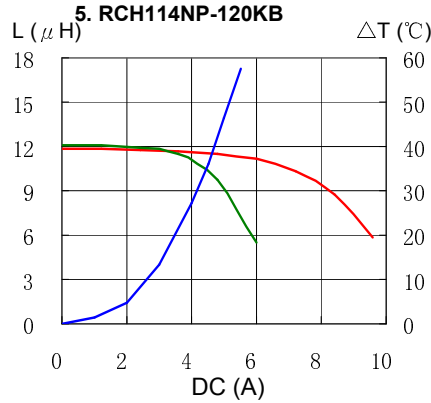
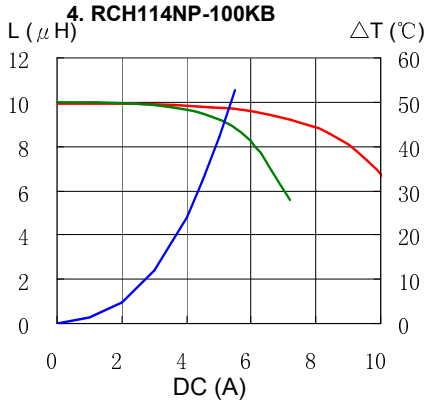
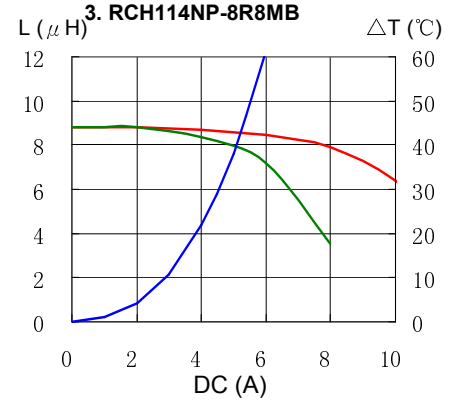
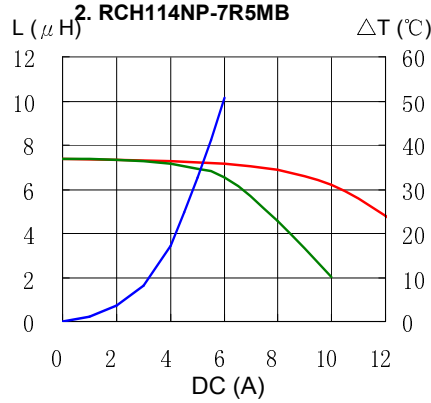
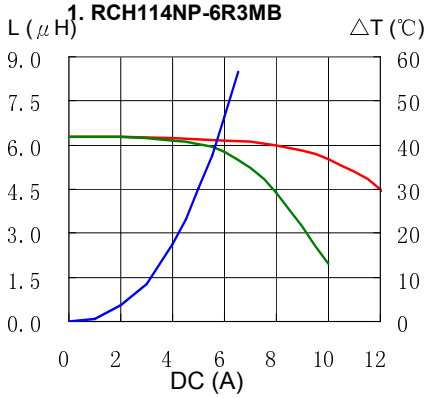
※2 : Rated current: The DC current at which the inductance decreases 90% of its initial value or when $\Delta t=40^\circ\text{C}$, whichever is lower ($T_a=20^\circ\text{C}$)

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

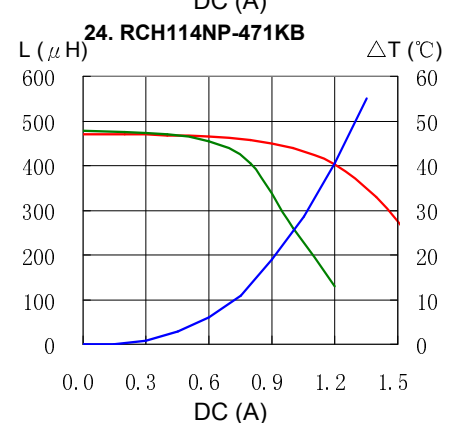
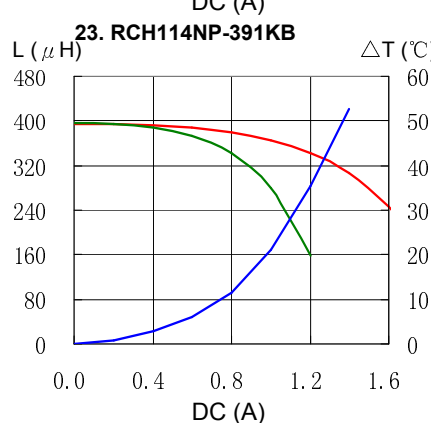
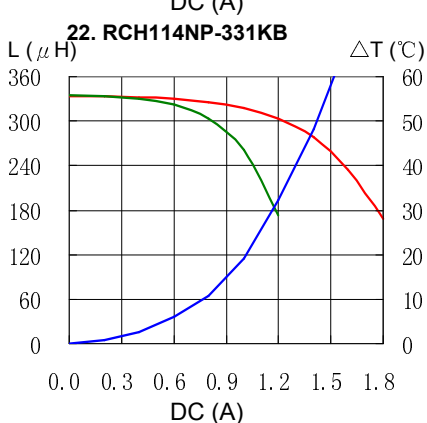
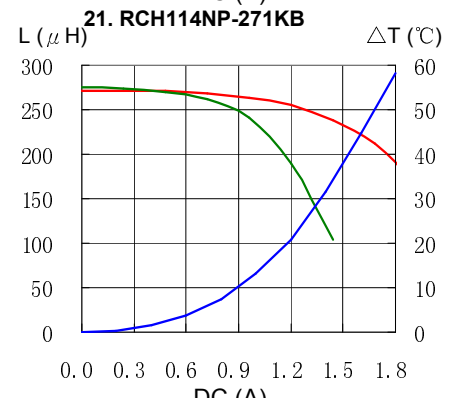
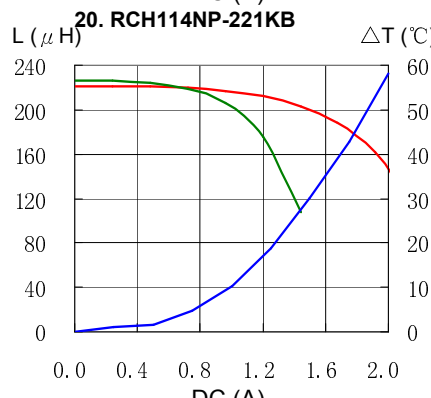
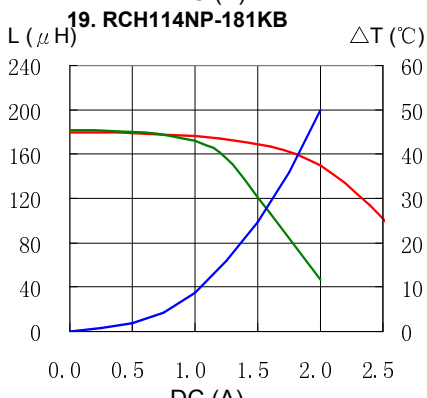
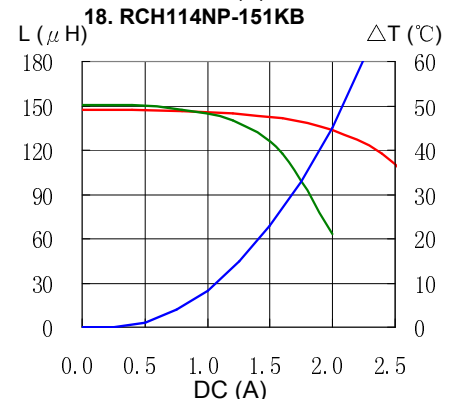
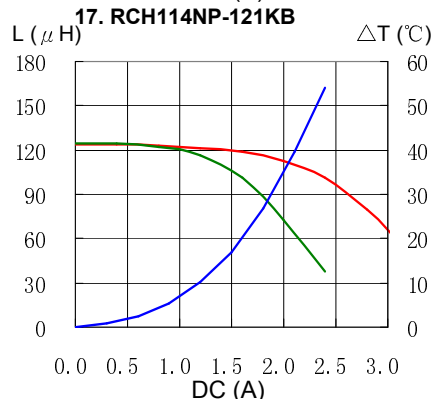
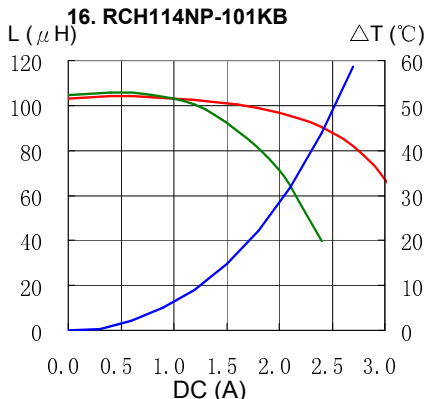
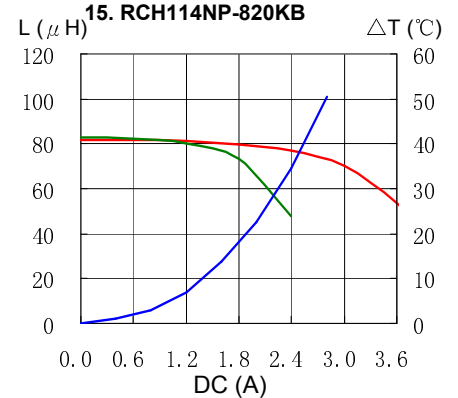
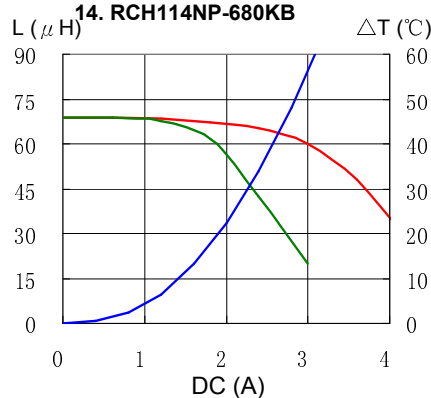
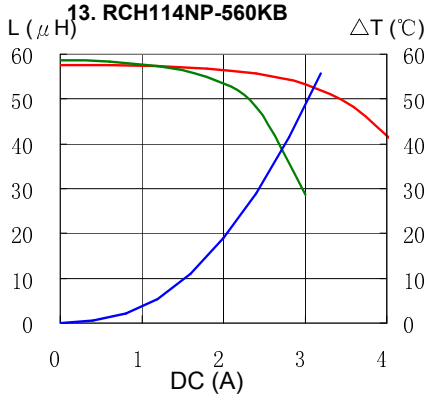


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

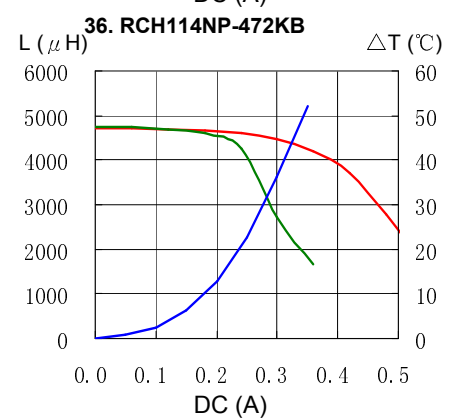
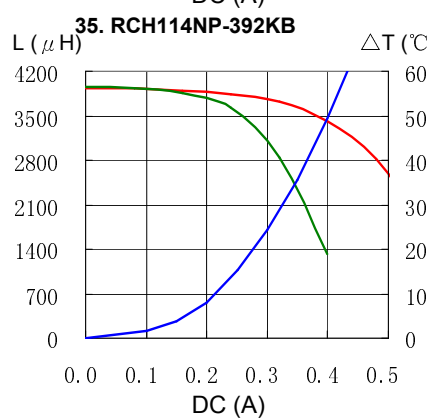
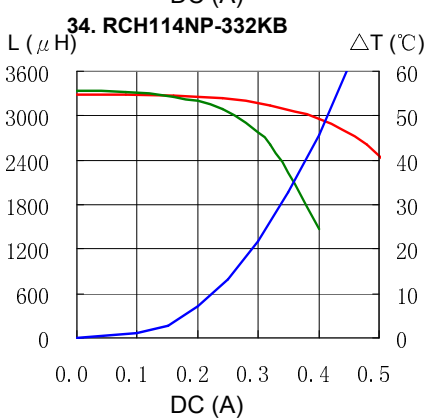
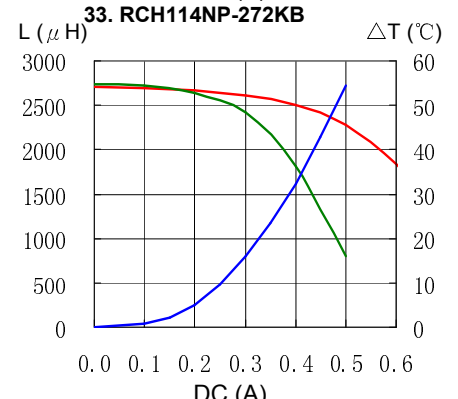
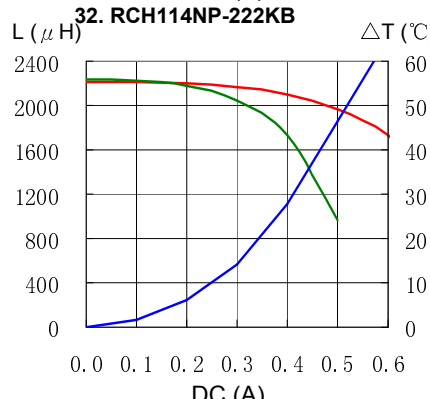
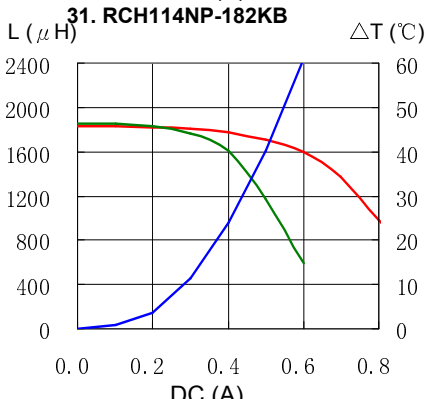
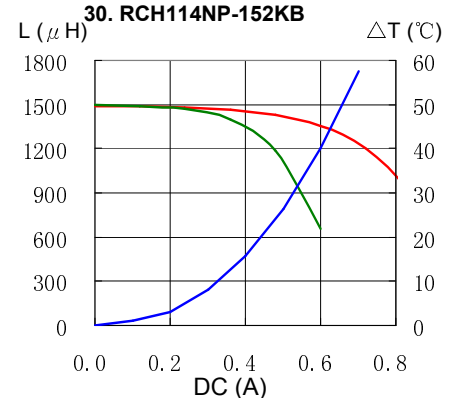
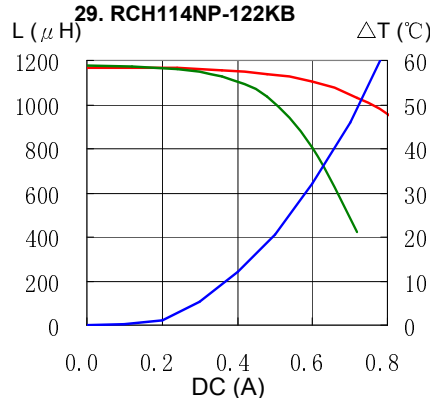
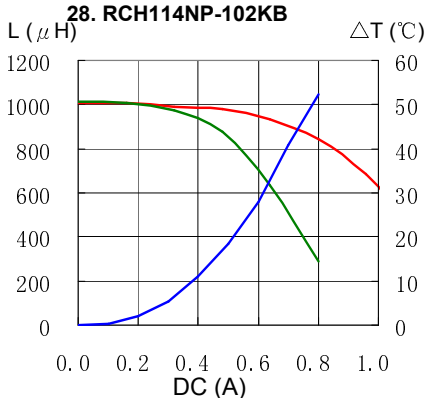
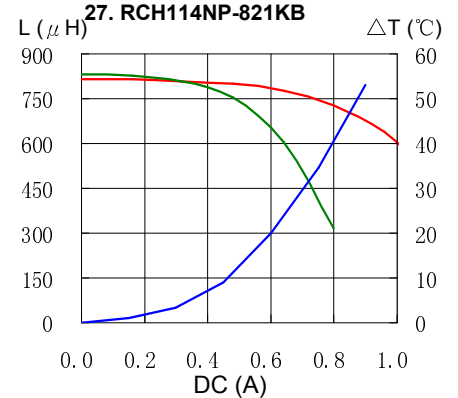
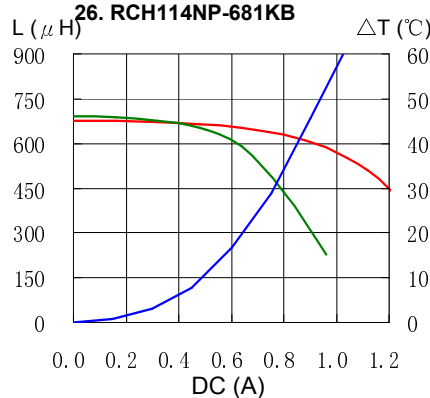
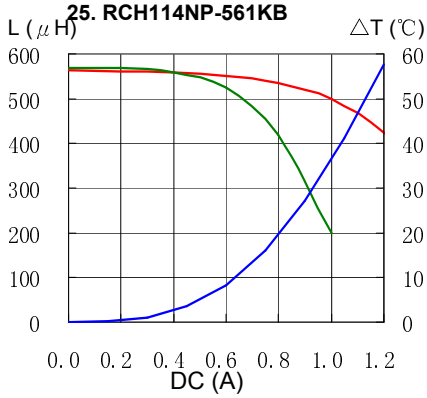


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

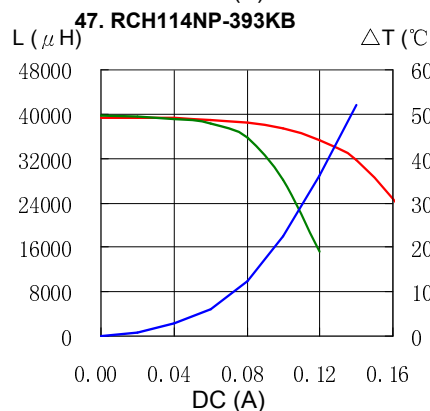
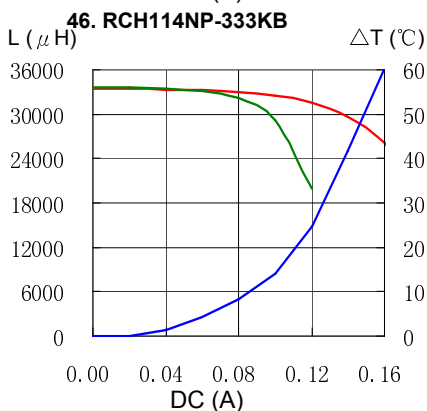
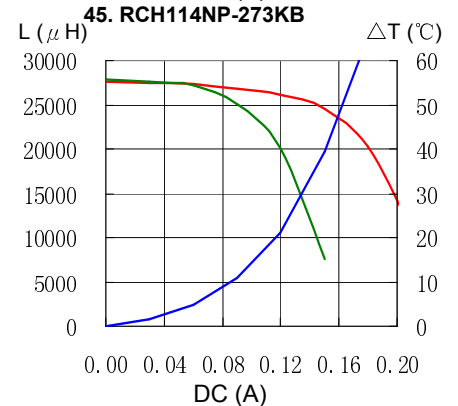
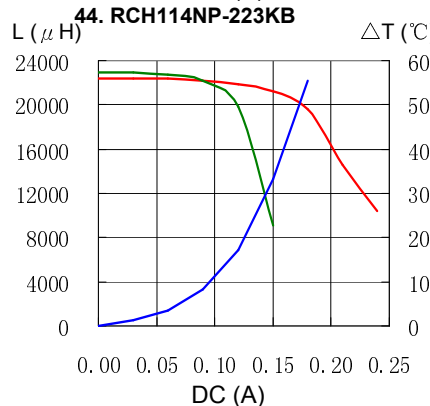
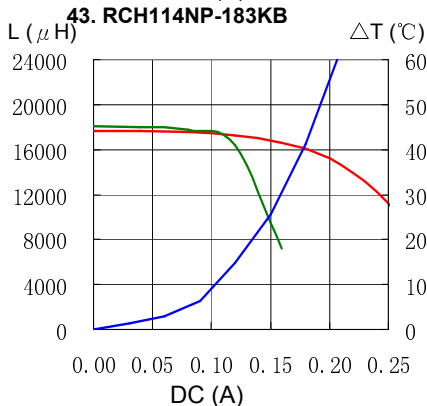
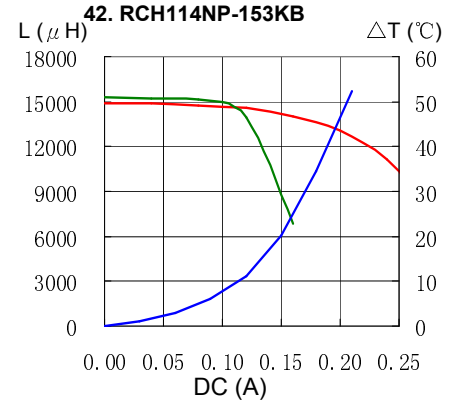
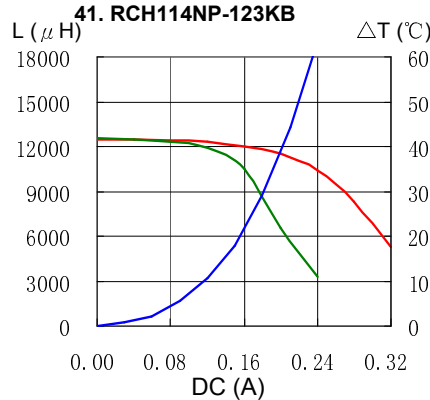
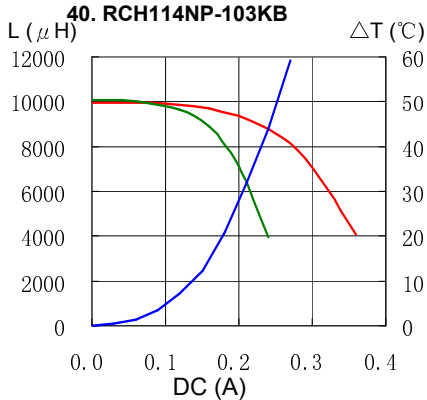
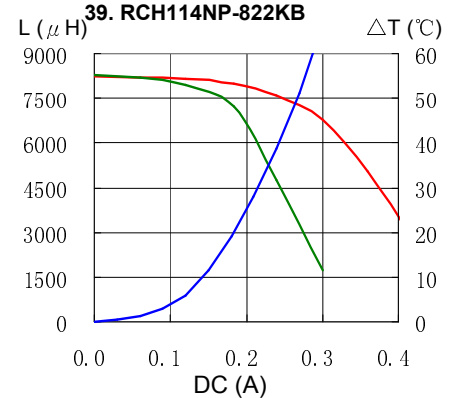
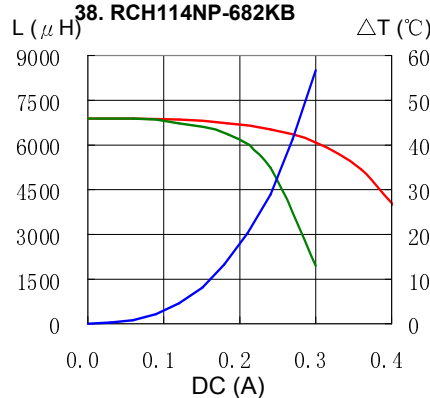
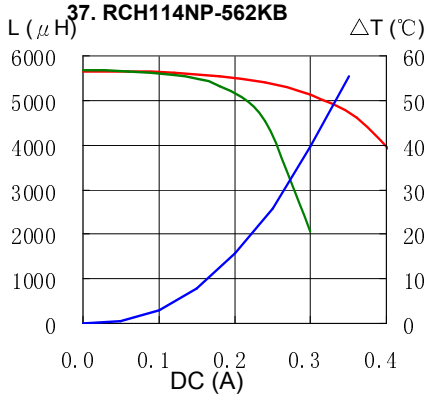


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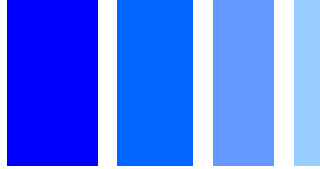


Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT



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