

PIN Power Inductor RCH-875



Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 8.3 × 8.3 × 7.5mm Max.
- Product weight: 1.13g(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

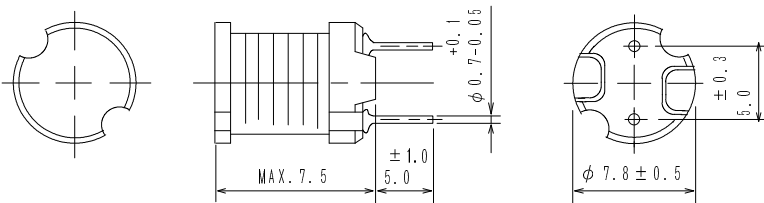
Packaging

- Box packaging.

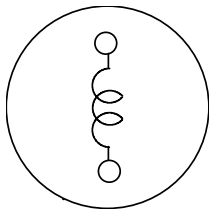
Applications

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

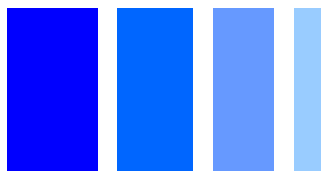
Dimension - [mm]



Schematics - [mm]



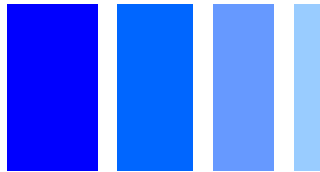
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Electrical Characteristics

| Part Name | Stamp | Inductance (μ H) [within] ※ 1 | D.C.R (Ω) [Max.] (at20°C) | Saturation Current (A) ※2 | Temperature Rise Current (A) ※3 |
|---------------|-------|--|--|------------------------------|---------------------------------------|
| RCH875NP-2R2M | 2R2M | 2.2 \pm 20% | 13.7m | 5.8 | 3.0 |
| RCH875NP-2R8M | 2R8M | 2.8 \pm 20% | 15.3m | 5.0 | 2.9 |
| RCH875NP-3R5M | 3R5M | 3.5 \pm 20% | 17.2m | 4.7 | 2.8 |
| RCH875NP-4R4M | 4R4M | 4.4 \pm 20% | 19.1m | 4.5 | 2.7 |
| RCH875NP-5R1M | 5R1M | 5.1 \pm 20% | 21.2m | 4.2 | 2.6 |
| RCH875NP-6R0M | 6R0M | 6.0 \pm 20% | 22.2m | 4.0 | 2.5 |
| RCH875NP-7R1M | 7R1M | 7.1 \pm 20% | 24.2m | 3.4 | 2.3 |
| RCH875NP-8R2M | 8R2M | 8.2 \pm 20% | 26.5m | 3.1 | 2.2 |
| RCH875NP-100M | 100M | 10 \pm 20% | 0.05 | 2.9 | 2.1 |
| RCH875NP-120M | 120M | 12 \pm 20% | 0.06 | 2.5 | 1.8 |
| RCH875NP-150K | 150K | 15 \pm 10% | 0.07 | 2.2 | 1.4 |
| RCH875NP-180K | 180K | 18 \pm 10% | 0.08 | 1.9 | 1.3 |
| RCH875NP-220K | 220K | 22 \pm 10% | 0.09 | 1.8 | 1.2 |
| RCH875NP-270K | 270K | 27 \pm 10% | 0.11 | 1.7 | 1.0 |
| RCH875NP-330K | 330K | 33 \pm 10% | 0.13 | 1.5 | 1.0 |
| RCH875NP-390K | 390K | 39 \pm 10% | 0.14 | 1.3 | 0.95 |
| RCH875NP-470K | 470K | 47 \pm 10% | 0.15 | 1.3 | 0.90 |
| RCH875NP-560K | 560K | 56 \pm 10% | 0.18 | 1.2 | 0.73 |
| RCH875NP-680K | 680K | 68 \pm 10% | 0.20 | 1.1 | 0.68 |
| RCH875NP-820K | 820K | 82 \pm 10% | 0.24 | 1.0 | 0.63 |
| RCH875NP-101K | 101K | 100 \pm 10% | 0.35 | 0.89 | 0.59 |
| RCH875NP-121K | 121K | 120 \pm 10% | 0.36 | 0.81 | 0.50 |
| RCH875NP-151K | 151K | 150 \pm 10% | 0.42 | 0.72 | 0.46 |
| RCH875NP-181K | 181K | 180 \pm 10% | 0.57 | 0.66 | 0.41 |
| RCH875NP-221K | 221K | 220 \pm 10% | 0.63 | 0.57 | 0.38 |
| RCH875NP-271K | 271K | 270 \pm 10% | 0.88 | 0.51 | 0.32 |
| RCH875NP-331K | 331K | 330 \pm 10% | 1.05 | 0.46 | 0.30 |
| RCH875NP-391K | 391K | 390 \pm 10% | 1.17 | 0.44 | 0.29 |

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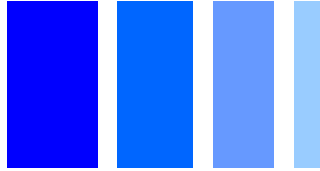
| Part Name | Stamp | Inductance (μ H) [within] ※ 1 | D.C.R. (Ω) [Max.] (at20°C) | Saturation Current (A) ※2 | Temperature Rise Current (A) ※3 |
|---------------|-------|--|---|------------------------------|---------------------------------------|
| RCH875NP-471K | 471K | 470 \pm 10% | 1.34 | 0.41 | 0.28 |
| RCH875NP-561K | 561K | 560 \pm 10% | 1.72 | 0.36 | 0.23 |
| RCH875NP-681K | 681K | 680 \pm 10% | 1.96 | 0.33 | 0.22 |
| RCH875NP-821K | 821K | 820 \pm 10% | 2.56 | 0.30 | 0.19 |
| RCH875NP-102K | 102K | 1.0mH \pm 10% | 2.94 | 0.27 | 0.18 |
| RCH875NP-122K | 122K | 1.2mH \pm 10% | 4.04 | 0.24 | 0.16 |
| RCH875NP-152K | 152K | 1.5mH \pm 10% | 4.70 | 0.22 | 0.15 |
| RCH875NP-182K | 182K | 1.8mH \pm 10% | 5.05 | 0.20 | 0.14 |
| RCH875NP-222K | 222K | 2.2mH \pm 10% | 6.25 | 0.18 | 0.13 |
| RCH875NP-272K | 272K | 2.7mH \pm 10% | 8.72 | 0.16 | 0.10 |
| RCH875NP-332K | 332K | 3.3mH \pm 10% | 10.6 | 0.15 | 95m |
| RCH875NP-392K | 392K | 3.9mH \pm 10% | 14.2 | 0.14 | 81m |
| RCH875NP-472K | 472K | 4.7mH \pm 10% | 16.7 | 0.12 | 74m |
| RCH875NP-562K | 562K | 5.6mH \pm 10% | 18.7 | 0.11 | 69m |
| RCH875NP-682K | 682K | 6.8mH \pm 10% | 21.8 | 0.10 | 67m |
| RCH875NP-822K | 822K | 8.2mH \pm 10% | 28.7 | 93m | 63m |
| RCH875NP-103K | 103K | 10mH \pm 10% | 33.0 | 84m | 54m |

※1: Inductance measuring frequency: 2.2 μ H ~ 8.2 μ H at 7.96MHz
 10 μ H ~ 82 μ H at 2.52MHz
 100 μ H ~ 10mH at 1 kHz

※2: Saturation current: The DC current at which the inductance decreases to 90% of it's initial value.

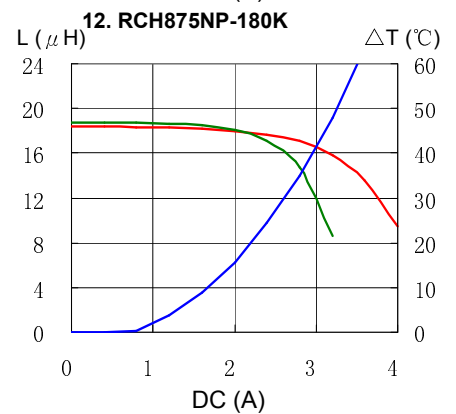
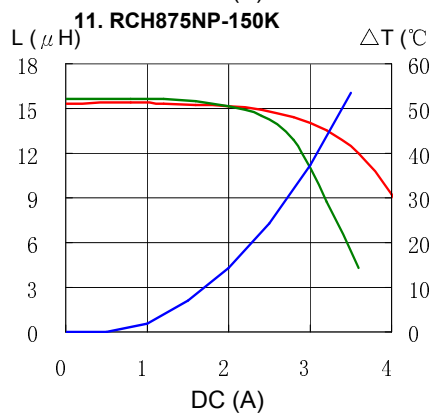
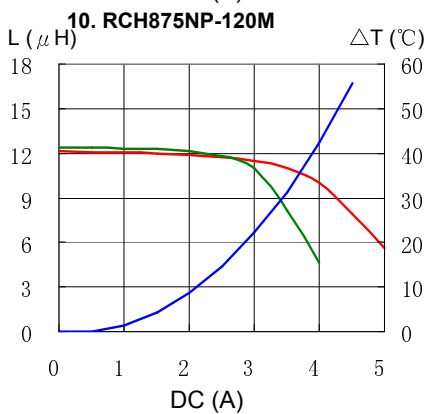
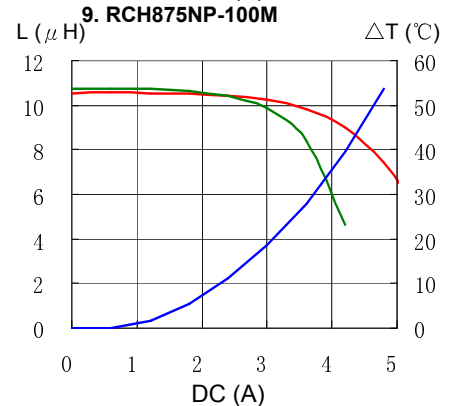
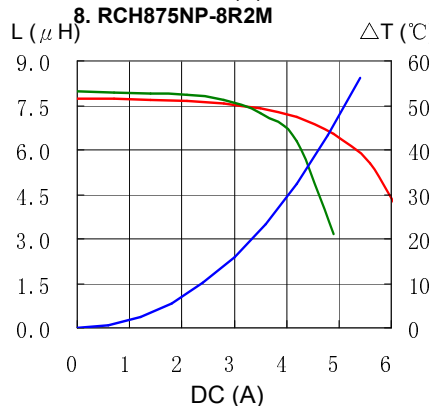
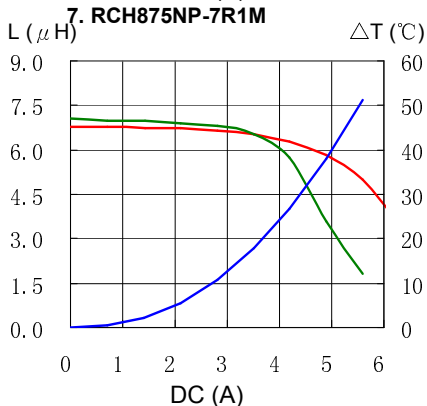
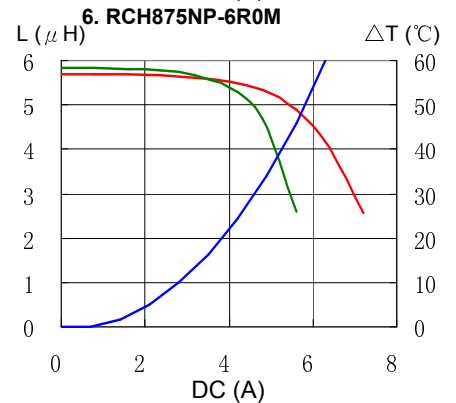
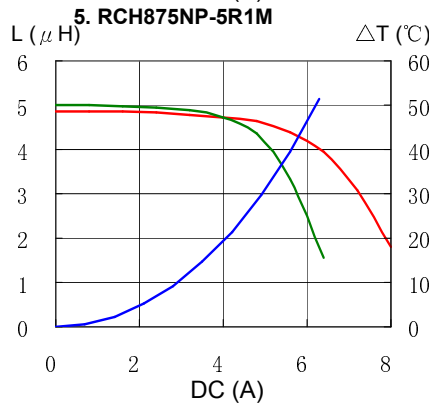
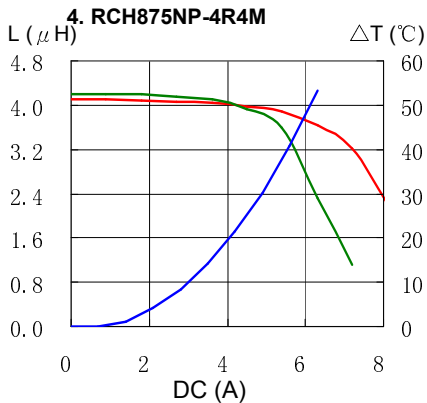
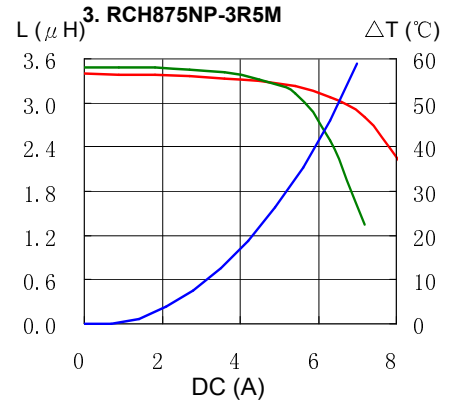
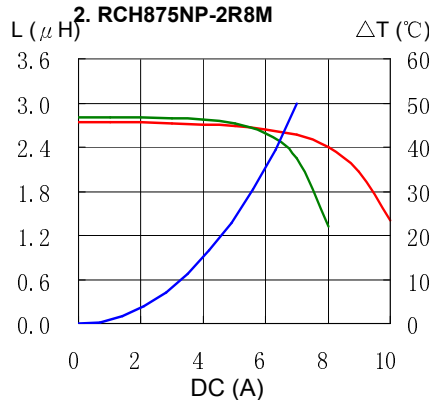
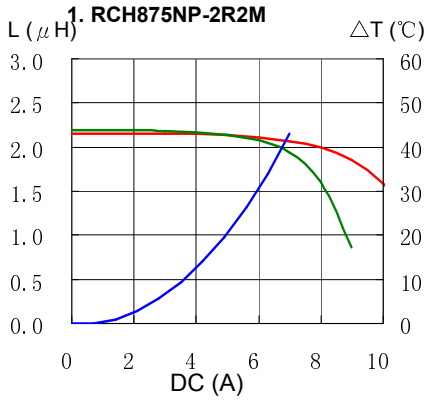
※3: Temperature rise current: The DC current at which the temperature rise is $\Delta t = 20^\circ\text{C}$. ($T_a = 20^\circ\text{C}$).

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

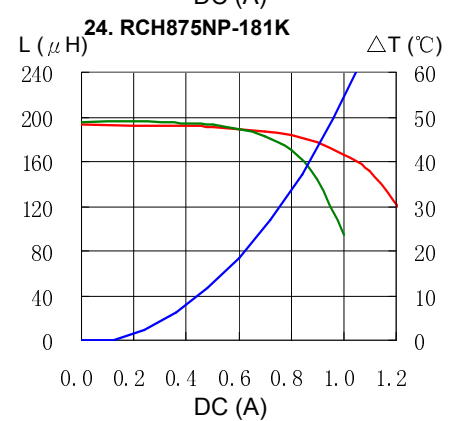
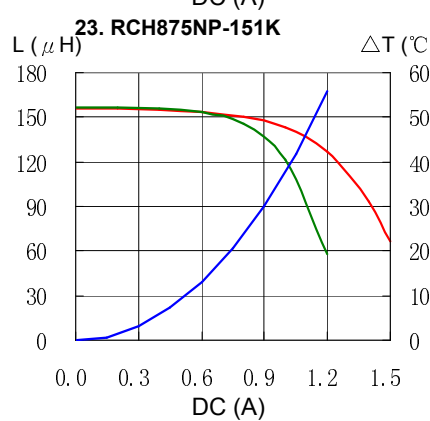
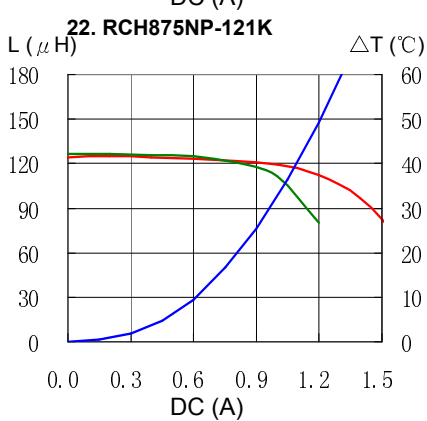
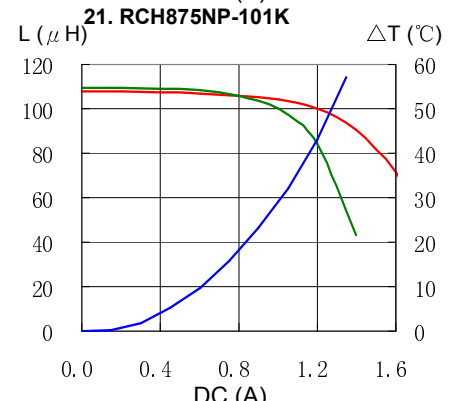
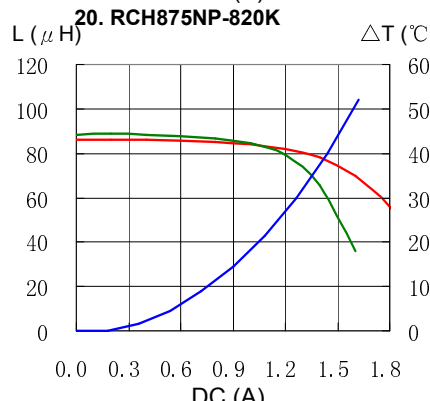
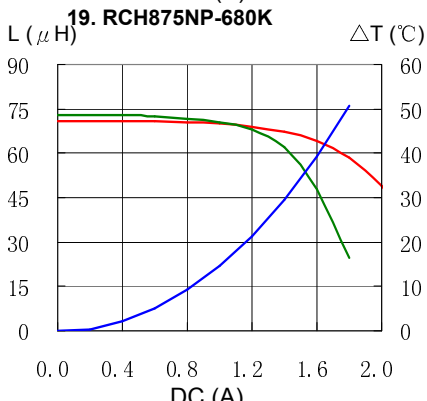
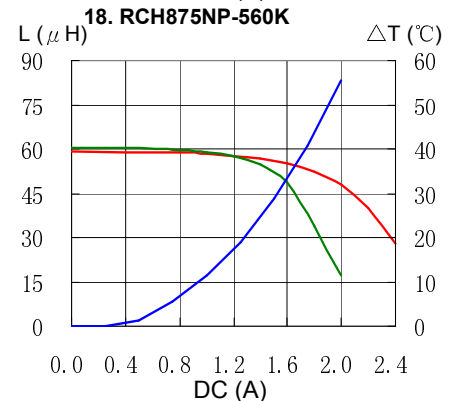
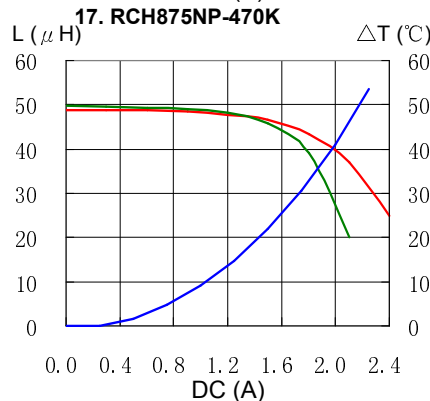
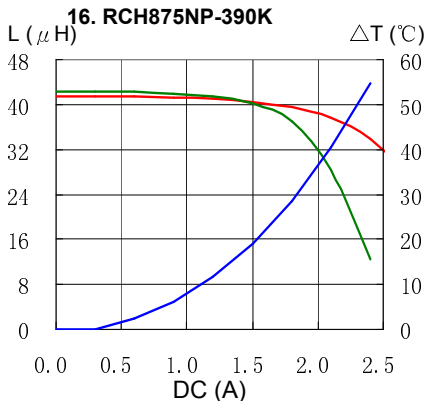
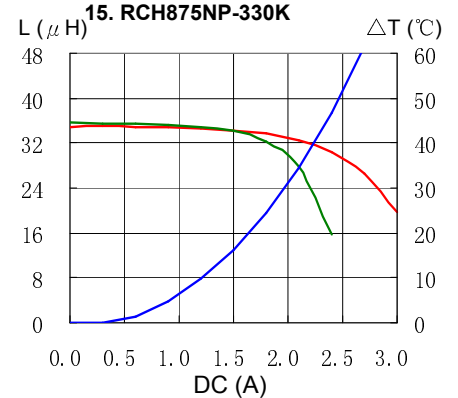
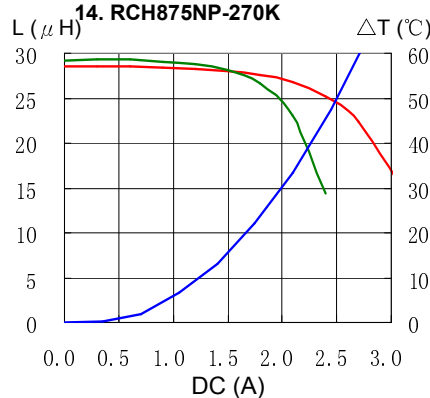
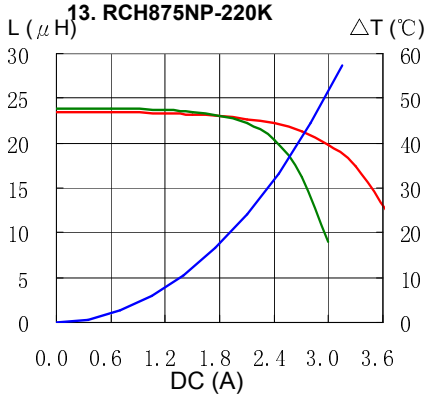


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

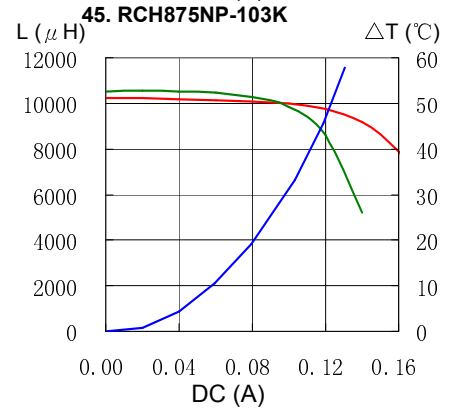
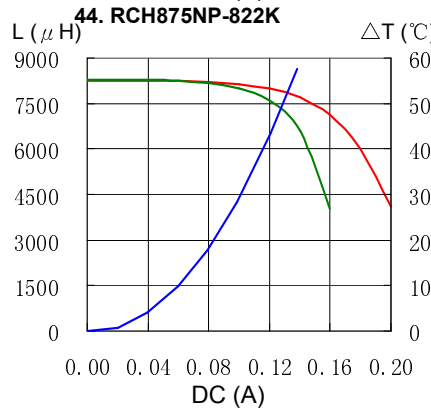
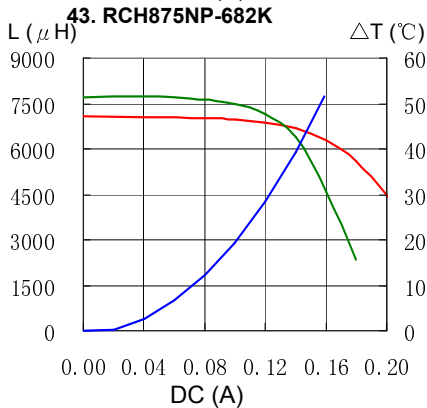
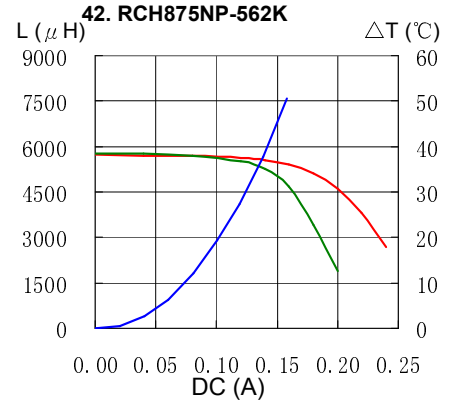
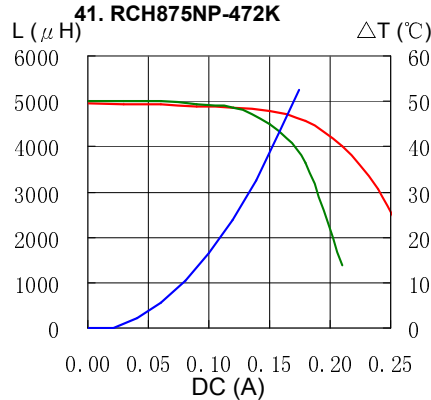
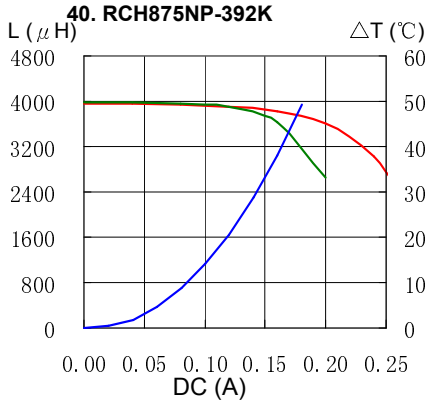
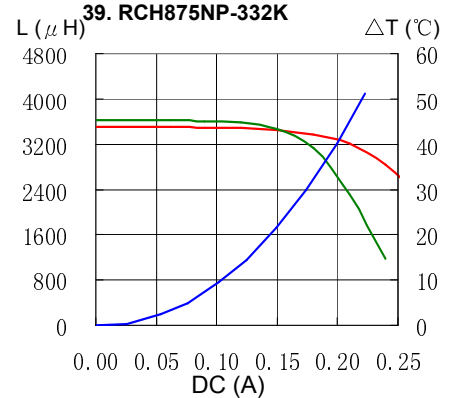
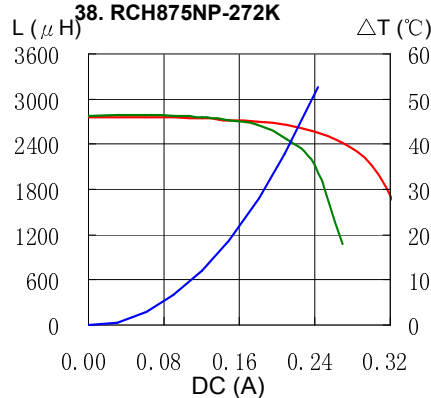
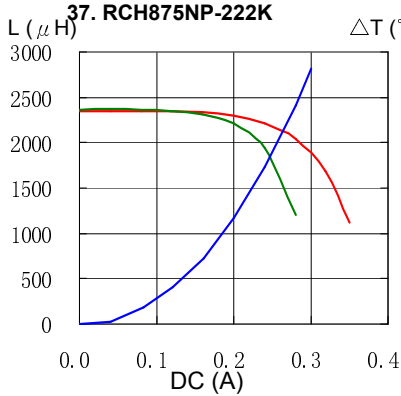


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT



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