

# PIN Power Inductor RCR1616



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 16.5 × 16.5 × 16.5mm Max.
- Product weight: 10 g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Environmental Data

- Operating temperature range: -30°C ~ +100°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +85°C

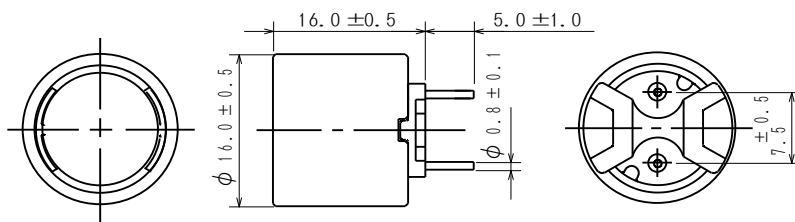
## Packaging

- Box packaging.

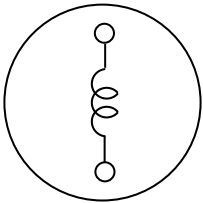
## Applications

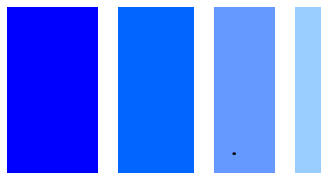
- Ideally used in Printers, LCD TV, DVD, Copy Machine, Mainboard of the compounding machines etc. as DC-DC Converter inductors.

## Dimension - [mm]



## Schematics - [mm]





### Electrical Characteristics

Part Name	Stamp	Inductance ( $\mu\text{H}$ ) [within] ※1	D.C.R. (m $\Omega$ ) [Max.] (Typ.) (at 20°C)	Saturation- current (A) ※2	Temperature Rise current (A) ※3
RCR1616NP-4R7M RCR1616NP-6R8M RCR1616NP-100M	4R7M 6R8M 100M	4.7 $\mu\text{H} \pm 20\%$ 6.8 $\mu\text{H} \pm 20\%$ 10 $\mu\text{H} \pm 20\%$	6.70(5.15) 9.35(7.20) 10.5(8.25)	12.6 9.8 9.3	9.2 8.0 7.8
RCR1616NP-120M RCR1616NP-150M RCR1616NP-180M	120M 150M 180M	12 $\mu\text{H} \pm 20\%$ 15 $\mu\text{H} \pm 20\%$ 18 $\mu\text{H} \pm 20\%$	11.0(8.47) 14.5(11.2) 16.5(12.7)	8.5 7.1 6.7	7.4 6.2 6.0
RCR1616NP-220M RCR1616NP-270M RCR1616NP-330M	220M 270M 330M	22 $\mu\text{H} \pm 20\%$ 27 $\mu\text{H} \pm 20\%$ 33 $\mu\text{H} \pm 20\%$	17.0(13.0) 20.0(15.2) 27.0(20.5)	6.2 5.6 5.0	5.7 5.2 4.8
RCR1616NP-390M RCR1616NP-470M RCR1616NP-560M	390M 470M 560M	39 $\mu\text{H} \pm 20\%$ 47 $\mu\text{H} \pm 20\%$ 56 $\mu\text{H} \pm 20\%$	33.0(25.4) 37.0(28.4) 45.0(34.5)	4.6 4.2 3.8	4.5 4.1 3.8
RCR1616NP-680M RCR1616NP-820M RCR1616NP-101K	680M 820M 101K	68 $\mu\text{H} \pm 20\%$ 82 $\mu\text{H} \pm 20\%$ 100 $\mu\text{H} \pm 10\%$	56.0(43.0) 64.5(49.5) 68.0(52.5)	3.3 2.9 2.7	3.4 3.1 2.9
RCR1616NP-121K RCR1616NP-151K RCR1616NP-181K	121K 151K 181K	120 $\mu\text{H} \pm 10\%$ 150 $\mu\text{H} \pm 10\%$ 180 $\mu\text{H} \pm 10\%$	80.0(61.7) 91.0(70.0) 135(104)	2.5 2.3 2.0	2.6 2.4 2.0
RCR1616NP-221K RCR1616NP-271K RCR1616NP-331K	221K 271K 331K	220 $\mu\text{H} \pm 10\%$ 270 $\mu\text{H} \pm 10\%$ 330 $\mu\text{H} \pm 10\%$	155(119) 180(140) 240(183)	1.8 1.7 1.5	1.8 1.7 1.4
RCR1616NP-391K RCR1616NP-471K RCR1616NP-561K	391K 471K 561K	390 $\mu\text{H} \pm 10\%$ 470 $\mu\text{H} \pm 10\%$ 560 $\mu\text{H} \pm 10\%$	255(196) 280(215) 380(291)	1.3 1.2 1.1	1.3 1.3 1.1
RCR1616NP-681K RCR1616NP-821K RCR1616NP-102K	681K 821K 102K	680 $\mu\text{H} \pm 10\%$ 820 $\mu\text{H} \pm 10\%$ 1.0mH $\pm 10\%$	515(397) 575(443) 665(513)	1.0 0.96 0.85	1.0 0.99 0.93

※1. Inductance measuring condition: at 1kHz.

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

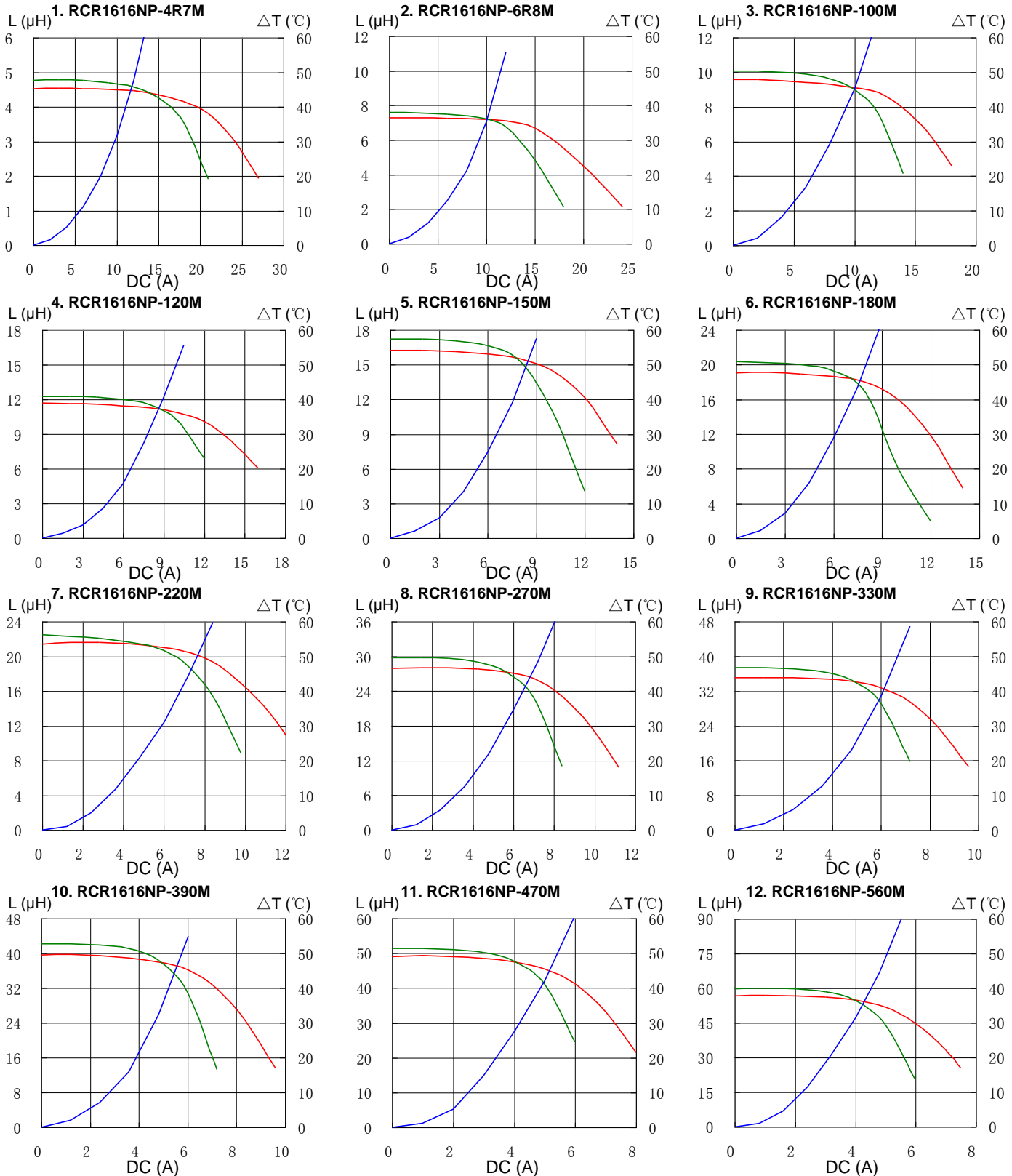
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t = 40^\circ\text{C}$  ( $T_a = 20^\circ\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

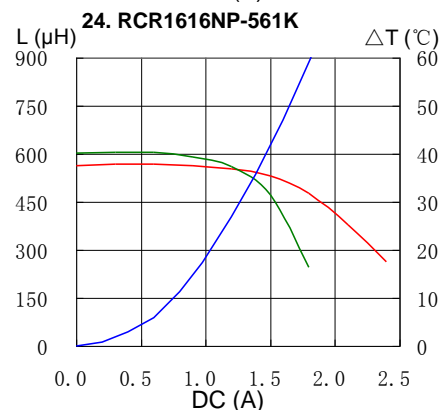
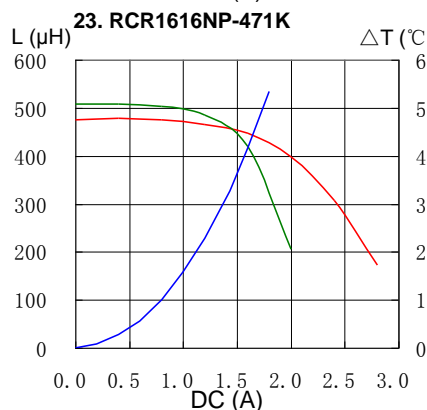
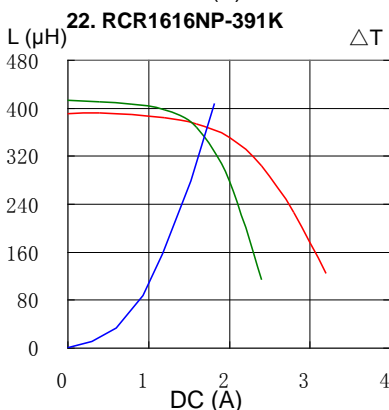
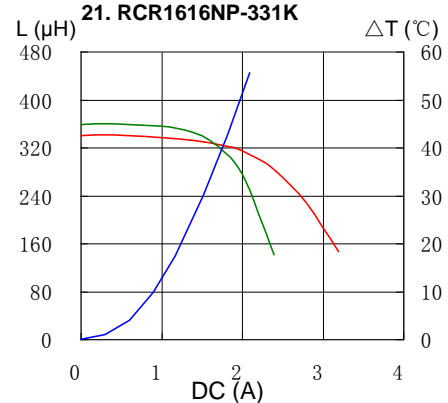
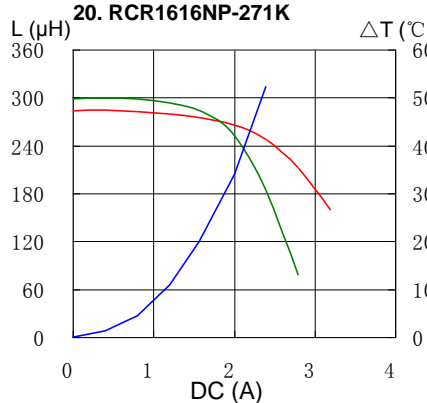
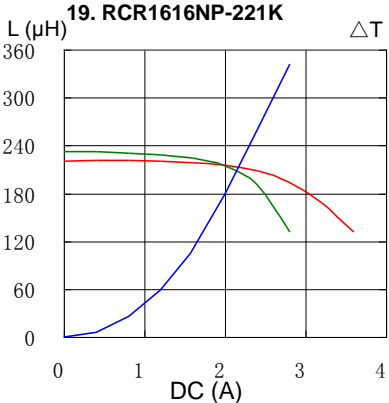
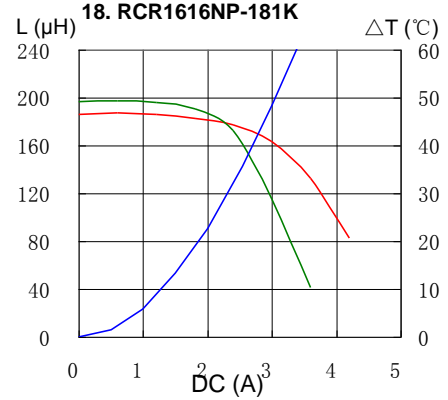
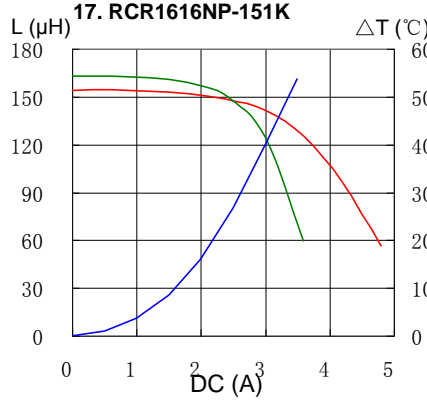
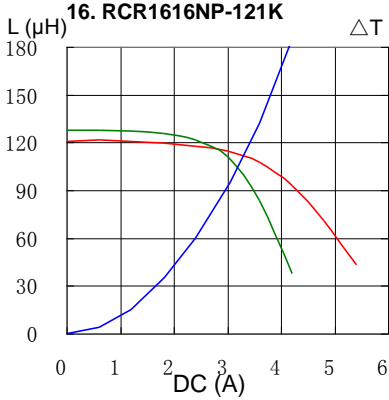
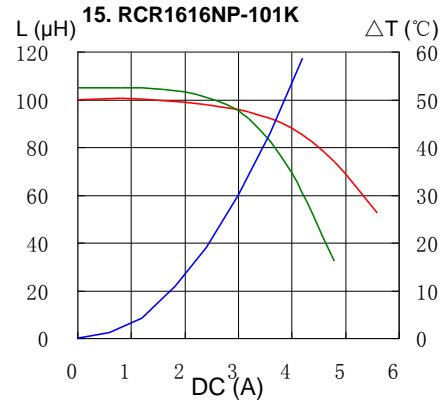
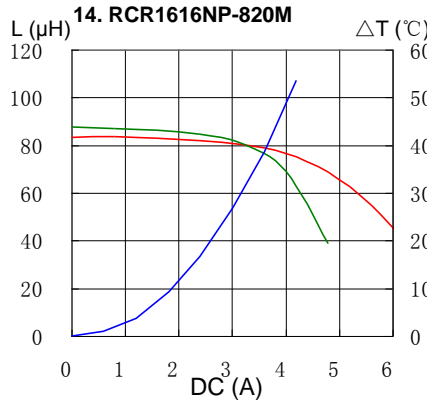
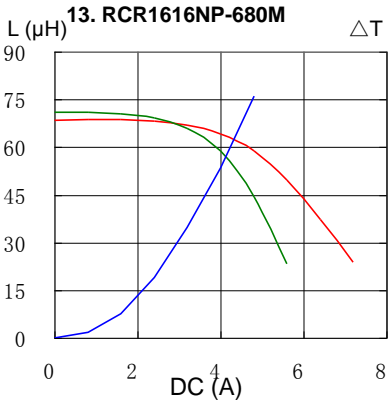


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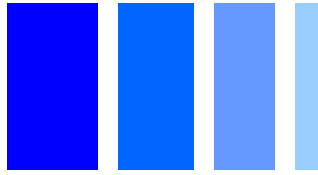


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

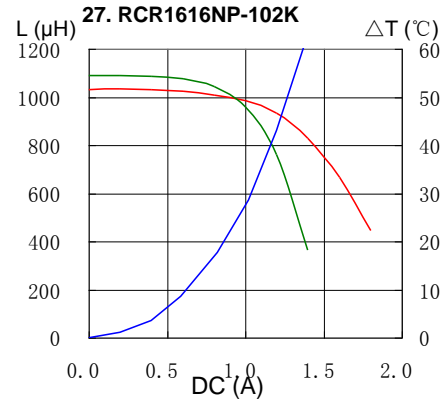
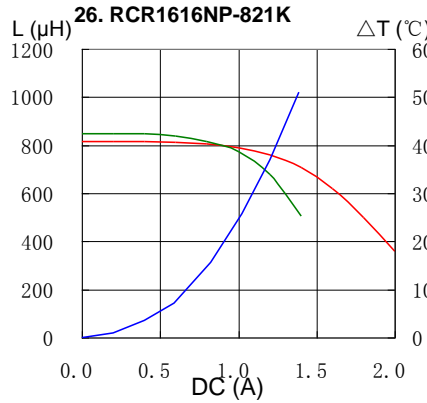
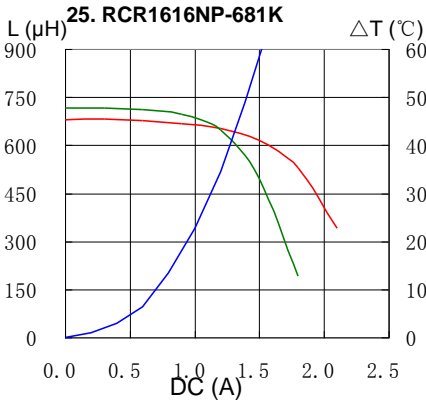


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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$



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