

# PIN Power Inductor RCR1010



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 10.5 × 10.5 × 10.5mm Max.
- Product weight: 2.9 g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Environmental Data

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

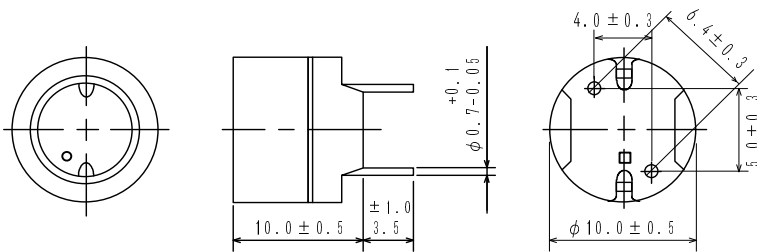
## Packaging

- Box packaging.

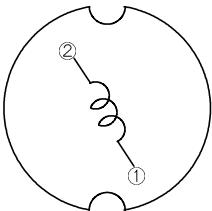
## Applications

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

## Dimension - [mm]



## Schematics - [mm]



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## Electrical Characteristics

Part Name	Stamp	Inductance ( $\mu$ H) [Within] ※1	D.C.R. (m $\Omega$ ) Max. (Typ.) (at 20°C)	Saturation Current (A) ※2		Temperature Rise current (A) ※3
				(at 20°C)	(at 105°C)	
RCR1010NP-100M	100M	10 $\mu$ H $\pm$ 20%	25.1(20.1)	4.8	3.8	4.3
RCR1010NP-120M	120M	12 $\mu$ H $\pm$ 20%	26.6(21.3)	4.5	3.5	4.2
RCR1010NP-150M	150M	15 $\mu$ H $\pm$ 20%	31.3(25.1)	4.0	3.2	4.1
RCR1010NP-180M	180M	18 $\mu$ H $\pm$ 20%	33.8(27.1)	3.8	2.9	4.0
RCR1010NP-220M	220M	22 $\mu$ H $\pm$ 20%	38.3(30.6)	3.4	2.6	3.8
RCR1010NP-270M	270M	27 $\mu$ H $\pm$ 20%	40.9(32.7)	3.0	2.5	3.6
RCR1010NP-330M	330M	33 $\mu$ H $\pm$ 20%	53.8(43.1)	2.7	2.2	3.2
RCR1010NP-390M	390M	39 $\mu$ H $\pm$ 20%	73.4(58.7)	2.5	2.0	2.5
RCR1010NP-470M	470M	47 $\mu$ H $\pm$ 20%	102.1(81.7)	2.2	1.8	2.2
RCR1010NP-560M	560M	56 $\mu$ H $\pm$ 20%	111.3(89.0)	2.1	1.7	2.1
RCR1010NP-680M	680M	68 $\mu$ H $\pm$ 20%	137.5(110.0)	1.8	1.4	1.9
RCR1010NP-820M	820M	82 $\mu$ H $\pm$ 20%	160.0(128.0)	1.7	1.3	1.8
RCR1010NP-101M	101M	100 $\mu$ H $\pm$ 20%	175.3(140.2)	1.5	1.2	1.7
RCR1010NP-121M	121M	120 $\mu$ H $\pm$ 20%	193.8(155.0)	1.4	1.1	1.6
RCR1010NP-151M	151M	150 $\mu$ H $\pm$ 20%	225.6(180.5)	1.2	1.0	1.5
RCR1010NP-181M	181M	180 $\mu$ H $\pm$ 20%	275.3(220.2)	1.1	0.9	1.4
RCR1010NP-221M	221M	220 $\mu$ H $\pm$ 20%	313.0(250.5)	1.0	0.8	1.3
RCR1010NP-271M	271M	270 $\mu$ H $\pm$ 20%	450.6(360.5)	0.95	0.74	1.0
RCR1010NP-331M	331M	330 $\mu$ H $\pm$ 20%	500.6(400.5)	0.88	0.64	0.98
RCR1010NP-391M	391M	390 $\mu$ H $\pm$ 20%	563.0(450.5)	0.78	0.60	0.94
RCR1010NP-471M	471M	470 $\mu$ H $\pm$ 20%	748.8(599.0)	0.72	0.58	0.80
RCR1010NP-561M	561M	560 $\mu$ H $\pm$ 20%	848.8(682.9)	0.68	0.55	0.75
RCR1010NP-681M	681M	680 $\mu$ H $\pm$ 20%	1202(962.0)	0.60	0.48	0.63
RCR1010NP-821M	821M	820 $\mu$ H $\pm$ 20%	1342(1074)	0.57	0.45	0.60
RCR1010NP-102M	102M	1.0mH $\pm$ 20%	1490(1192)	0.48	0.39	0.55

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 80% of it's nominal value.

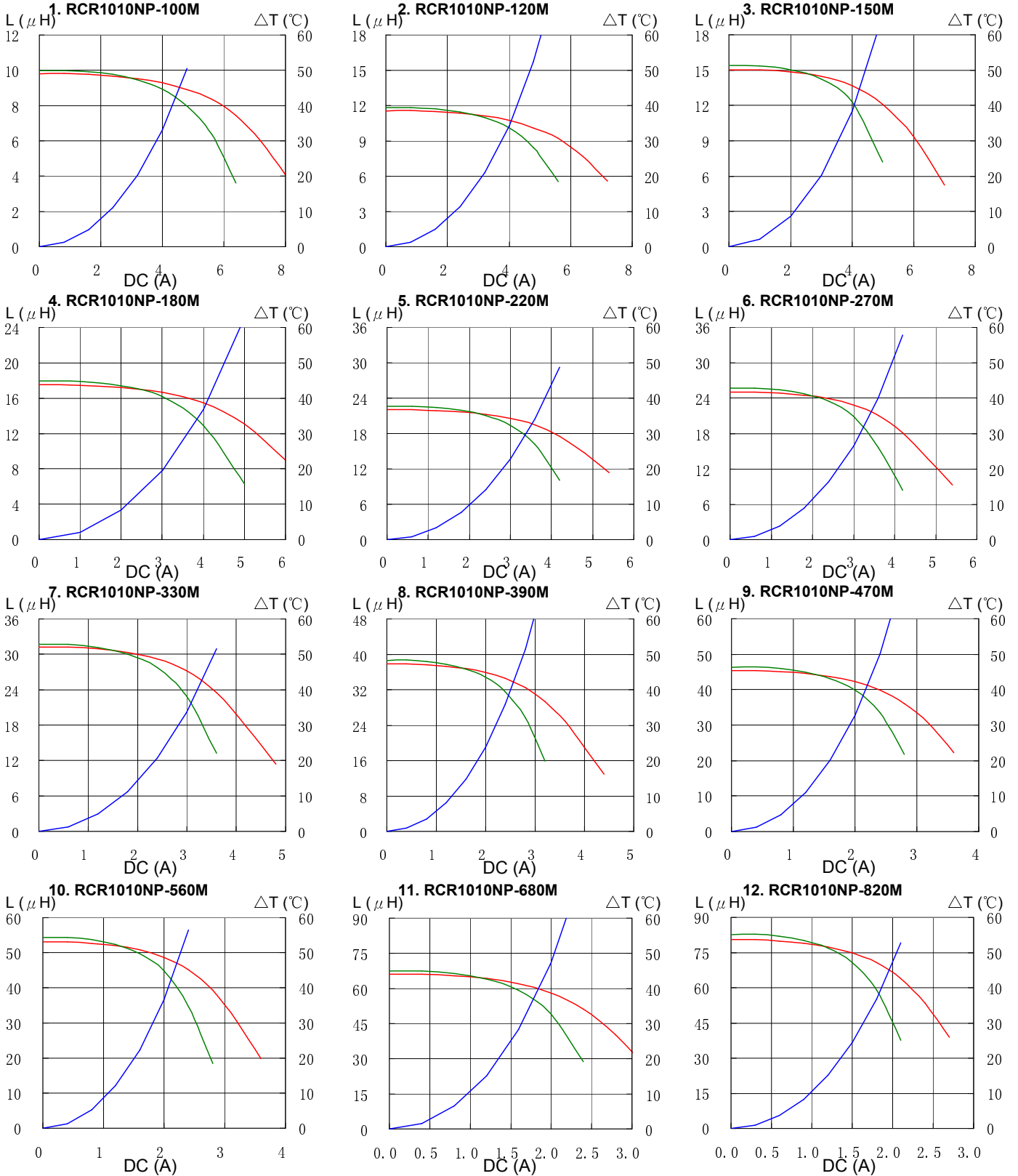
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

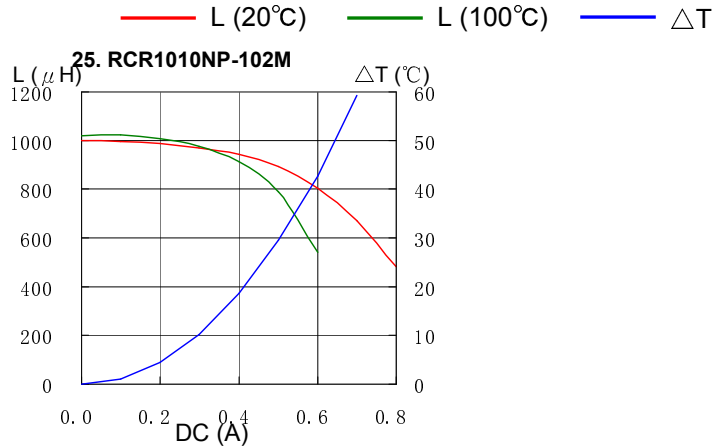




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## Saturation Current & Temperature Rise Graph



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