

SMD Power Inductor CR54



RoHS

Halogen
Free



Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 6.1 × 5.6 × 4.85 mm Max.
- Product weight: 0.41g(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
- Solder reflow temperature: 260 °C peak.

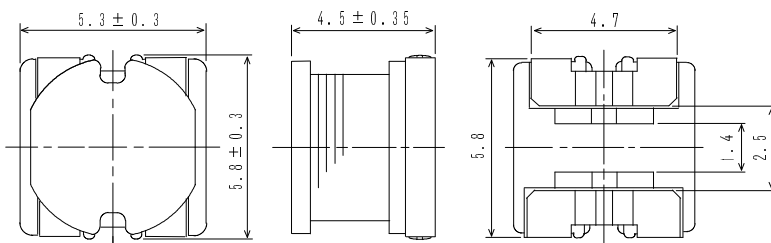
Packaging

- Carrier tape and reel packaging
- 12.9" diameter reel
- 1500pcs per reel

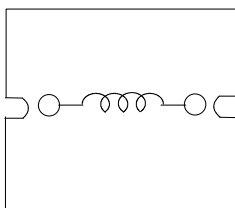
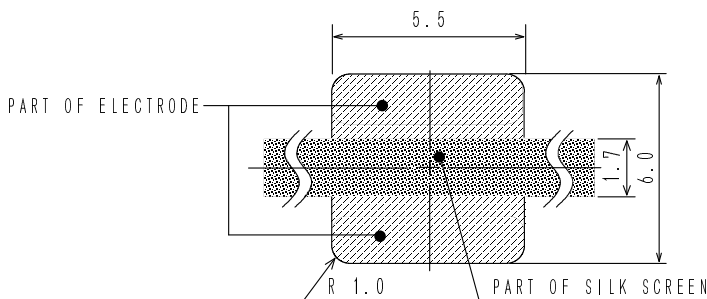
Applications

- Ideally used in A/V equipment, LCD TV, DSC/DVC, Game Machine, DVC, HDD, Notebook PC, etc as DC-DC converter inductors.

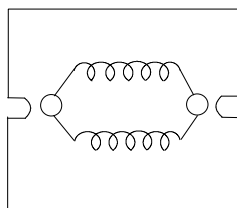
Dimension - [mm]



Land pattern and Schematics - [mm]



10 μH ~ 220 μH



2.2 μH ~ 8.5 μH

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Electrical Characteristics

Part Name	Stamp	Inductance (μ H) [within] ※ 1	D.C.R. (Ω) [Max.] (at 20°C)	Rated Current (A)※2
CR54NP-2R2MC	2R2	2.2 $\pm$ 20 %	23.4m	3.84
CR54NP-2R7MC	2R7	2.7 $\pm$ 20 %	26.0m	3.44
CR54NP-3R3MC	3R3	3.3 $\pm$ 20 %	28.6m	3.20
CR54NP-3R9MC	3R9	3.9 $\pm$ 20 %	35.1m	3.00
CR54NP-4R4MC	4R4	4.4 $\pm$ 20 %	39.0m	2.80
CR54NP-5R0MC	5R0	5.0 $\pm$ 20 %	44.2m	2.60
CR54NP-5R6MC	5R6	5.6 $\pm$ 20 %	49.4m	2.48
CR54NP-6R4MC	6R4	6.4 $\pm$ 20 %	52.0m	2.20
CR54NP-7R6MC	7R6	7.6 $\pm$ 20 %	62.4m	2.08
CR54NP-8R5MC	8R5	8.5 $\pm$ 20 %	67.6m	1.84
CR54NP-100MC	100	10 $\pm$ 20 %	0.10	1.44
CR54NP-120MC	120	12 $\pm$ 20 %	0.12	1.40
CR54NP-150MC	150	15 $\pm$ 20 %	0.14	1.30
CR54NP-180MC	180	18 $\pm$ 20 %	0.15	1.23
CR54NP-220MC	220	22 $\pm$ 20 %	0.18	1.11
CR54NP-270MC	270	27 $\pm$ 20 %	0.20	0.97
CR54NP-330LC	330	33 $\pm$ 15 %	0.23	0.88
CR54NP-390LC	390	39 $\pm$ 15 %	0.32	0.80
CR54NP-470LC	470	47 $\pm$ 15 %	0.37	0.72
CR54NP-560KC	560	56 $\pm$ 10 %	0.42	0.68
CR54NP-680KC	680	68 $\pm$ 10 %	0.46	0.61
CR54NP-820KC	820	82 $\pm$ 10 %	0.60	0.58
CR54NP-101KC	101	100 $\pm$ 10 %	0.70	0.52
CR54NP-121KC	121	120 $\pm$ 10 %	0.93	0.48
CR54NP-151KC	151	150 $\pm$ 10 %	1.10	0.40
CR54NP-181KC	181	180 $\pm$ 10 %	1.38	0.38
CR54NP-221KC	221	220 $\pm$ 10 %	1.57	0.35

※1. Inductance measuring frequency: 2.2 μ H $\sim$ 8.5 μ H ; at 7.96 MHz
 10 μ H $\sim$ 82 μ H ; at 2.52 MHz
 100 μ H $\sim$ 220 μ H ; at 1 kHz

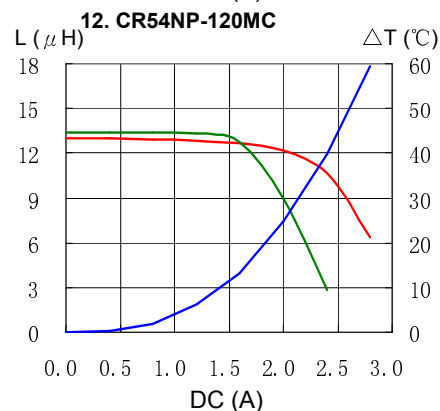
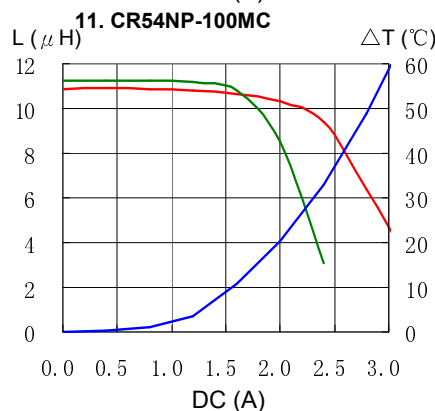
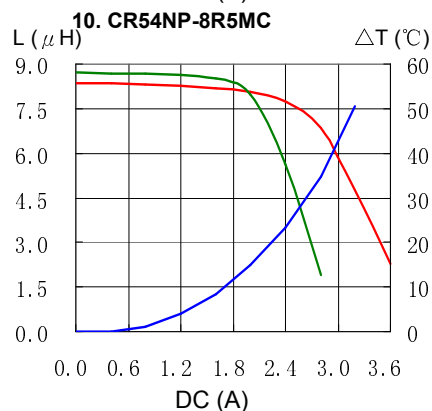
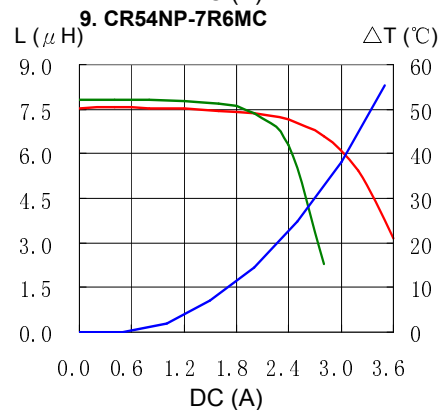
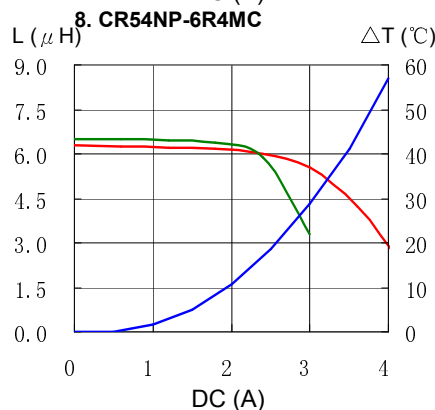
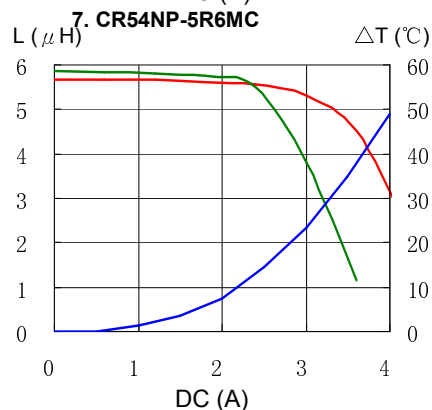
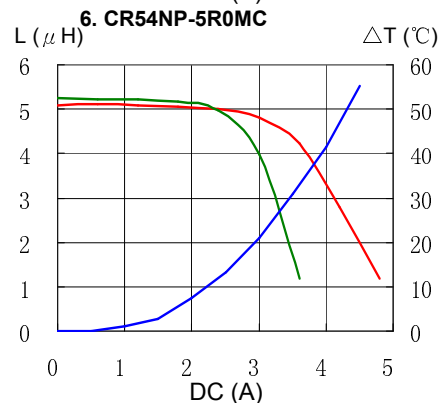
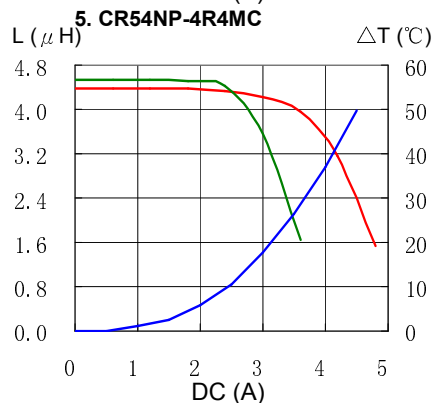
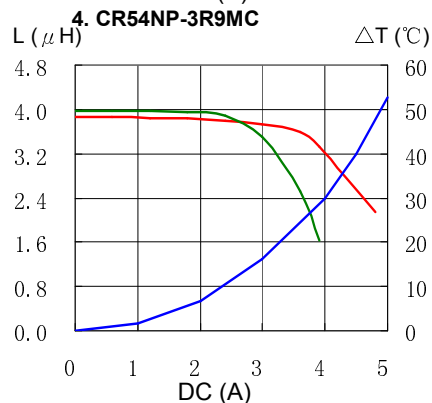
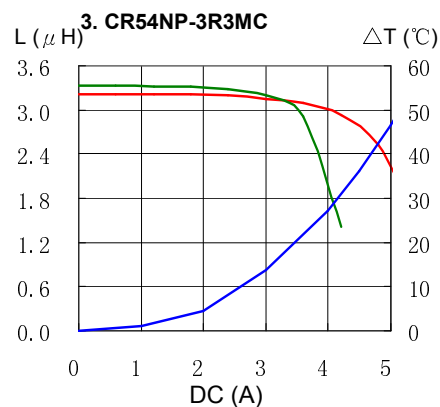
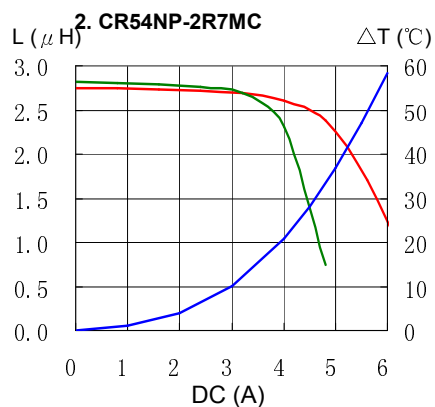
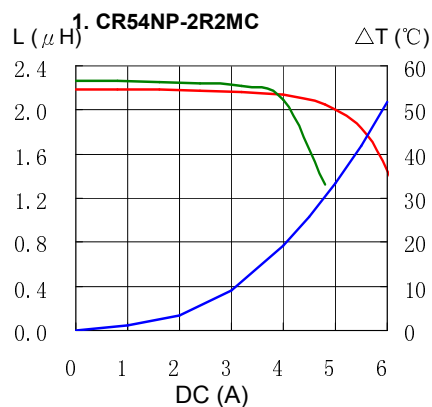
※2. Rated current: The D.C. current at which the inductance decreases to 90% of it's initial value or when $\Delta t=40^{\circ}\text{C}$, whichever is lower ($T_a=20^{\circ}\text{C}$).

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

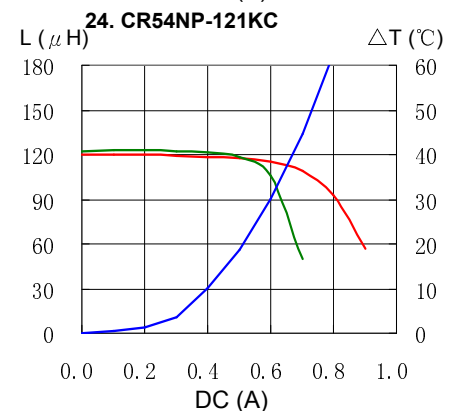
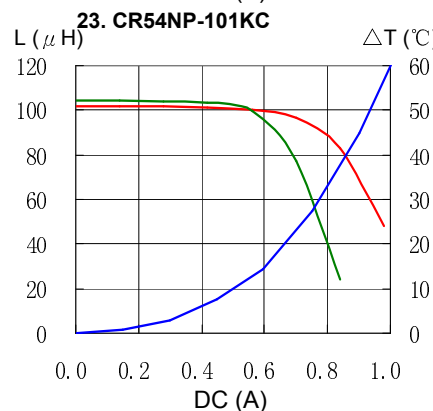
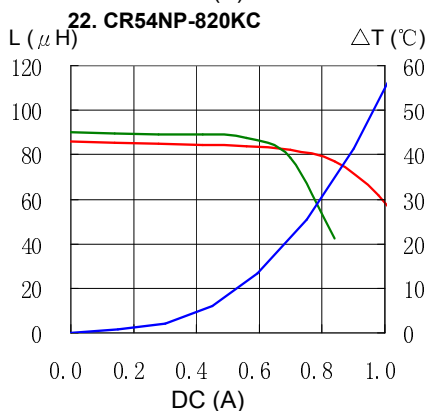
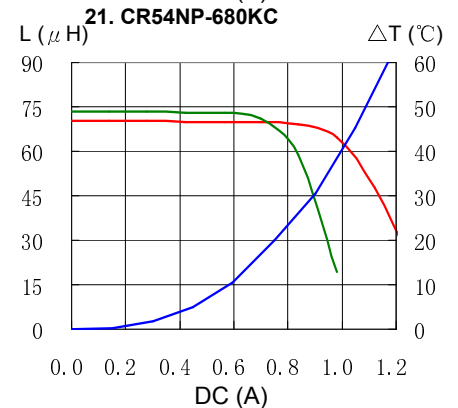
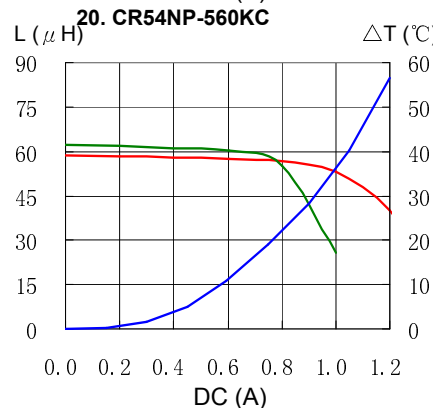
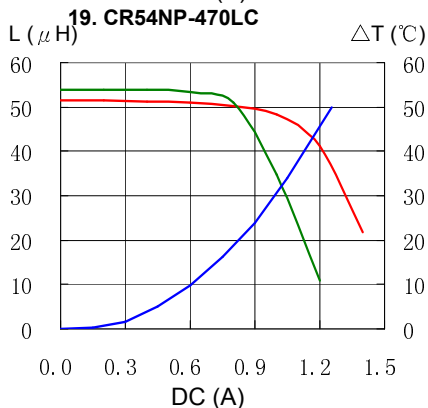
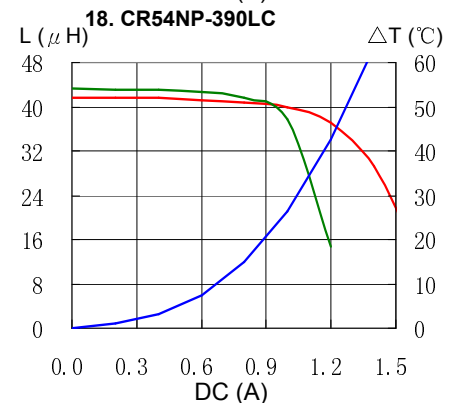
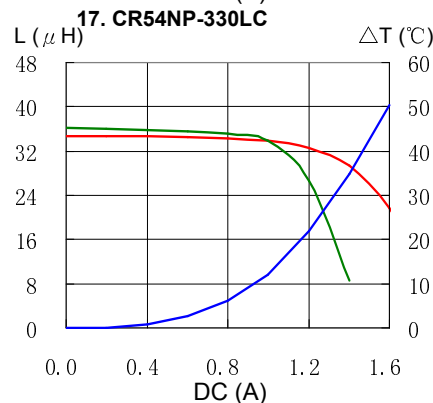
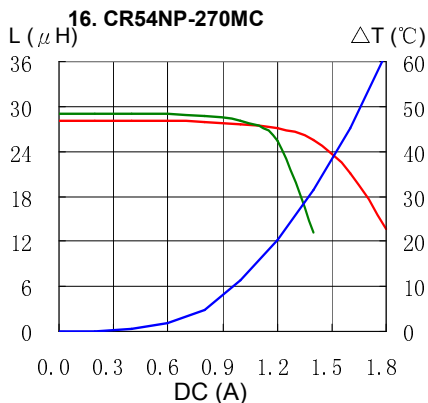
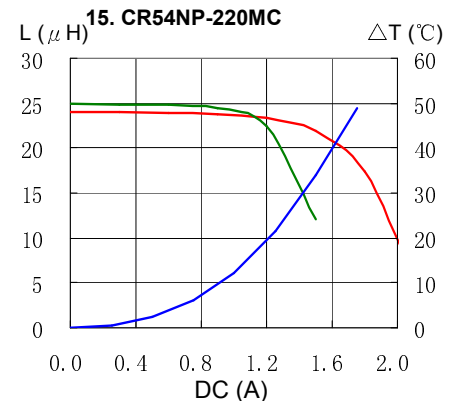
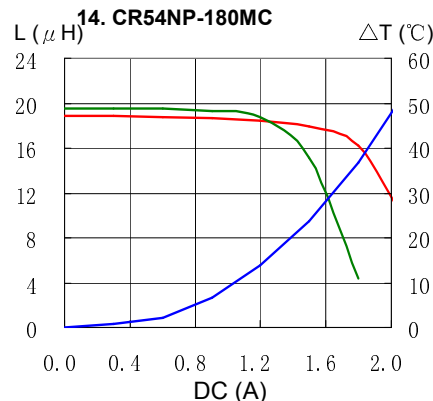
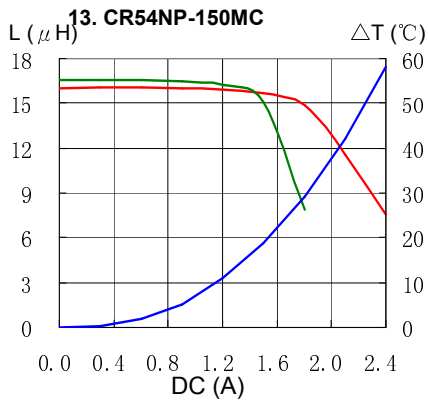


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

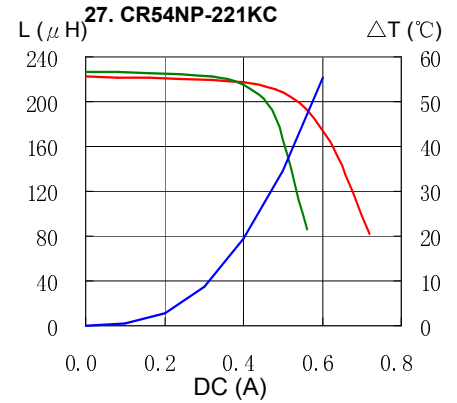
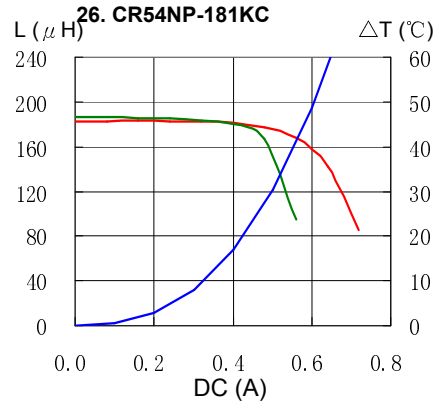
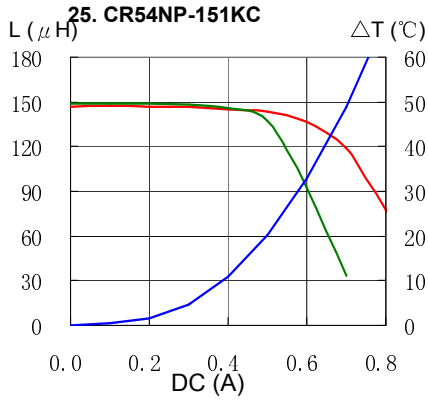


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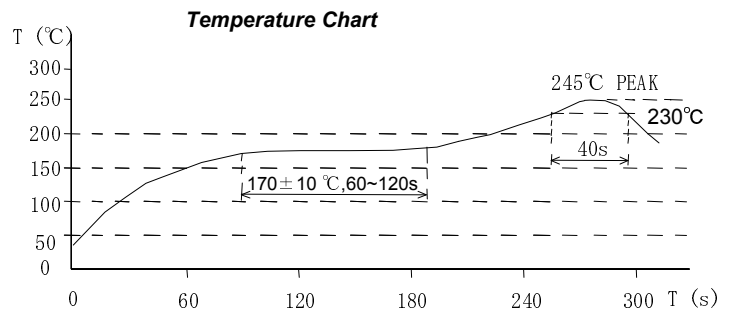
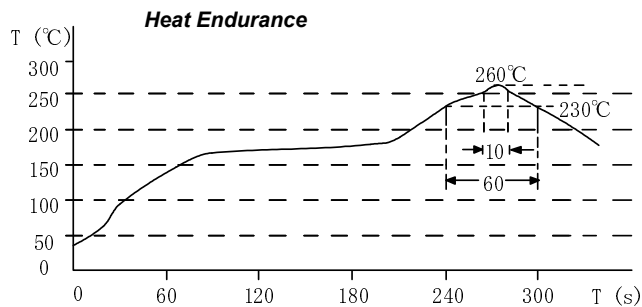


Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT



Solder Reflow Condition



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