



**THE DATASHEET OF  
CD54NP-470LC**



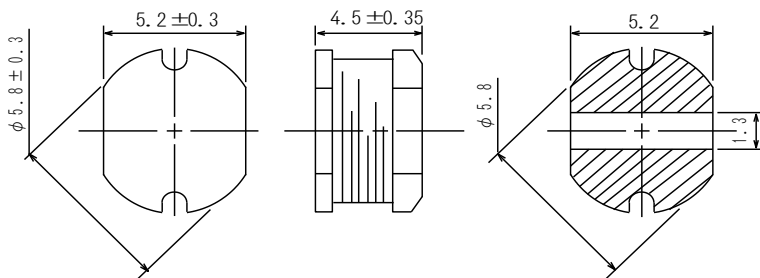
# SMD Power Inductor CD54



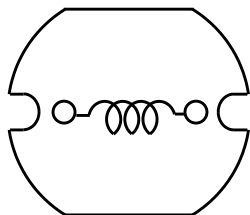
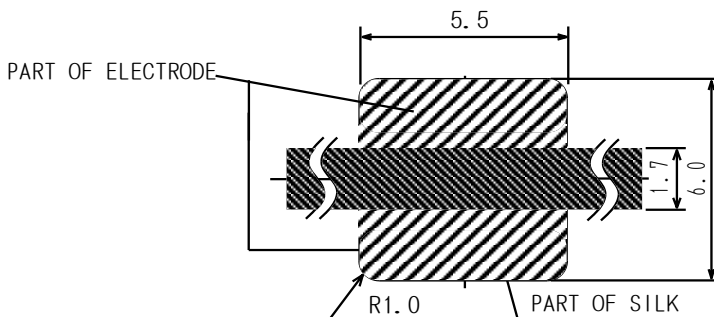
## Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 6.1 × 5.5 × 4.85mm Max.
- Product weight 0.4g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## 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.
- 13.0" diameter reel
- 1500pcs per reel

## Applications

- Ideally used in Mobilephone, PDA, MP3, DSC/DVC, portable DVD etc as DC-DC Converter inductors.



## Electrical Characteristics

Part Name	Stamp	Inductance ( $\mu\text{H}$ ) [within] ※1	D.C.R ( $\Omega$ ) [Max.] (at 20°C)	Rated Current (A) ※2
CD54NP-100MC	100	$10 \pm 20\%$	0.10	1.44
CD54NP-120MC	120	$12 \pm 20\%$	0.12	1.40
CD54NP-150MC	150	$15 \pm 20\%$	0.14	1.30
CD54NP-180MC	180	$18 \pm 20\%$	0.15	1.23
CD54NP-220MC	220	$22 \pm 20\%$	0.18	1.11
CD54NP-270MC	270	$27 \pm 20\%$	0.20	0.97
CD54NP-330LC	330	$33 \pm 15\%$	0.23	0.88
CD54NP-390LC	390	$39 \pm 15\%$	0.32	0.80
CD54NP-470LC	470	$47 \pm 15\%$	0.37	0.72
CD54NP-560KC	560	$56 \pm 10\%$	0.42	0.68
CD54NP-680KC	680	$68 \pm 10\%$	0.46	0.61
CD54NP-820KC	820	$82 \pm 10\%$	0.60	0.58
CD54NP-101KC	101	$100 \pm 10\%$	0.70	0.52
CD54NP-121KC	121	$120 \pm 10\%$	0.93	0.48
CD54NP-151KC	151	$150 \pm 10\%$	1.10	0.40
CD54NP-181KC	181	$180 \pm 10\%$	1.38	0.38
CD54NP-221KC	221	$220 \pm 10\%$	1.57	0.35

※1: Inductance measuring frequency:  $10\mu\text{H} \sim 82\mu\text{H}$  , at 2.52MHz.  
 $100\mu\text{H} \sim 220\mu\text{H}$  , at 1 kHz.

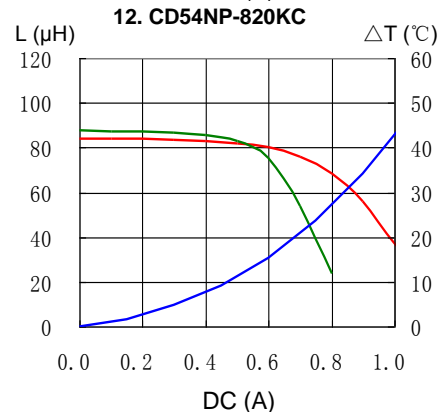
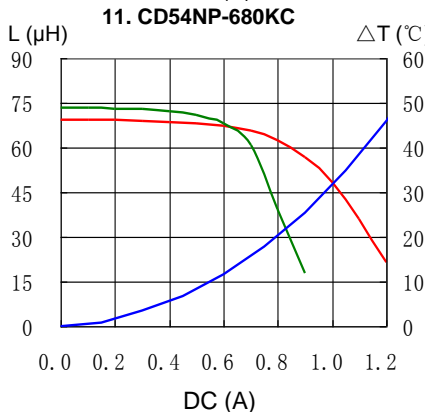
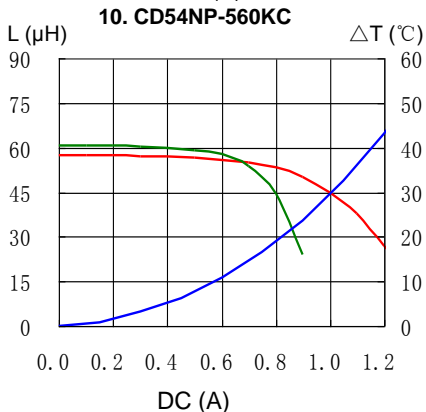
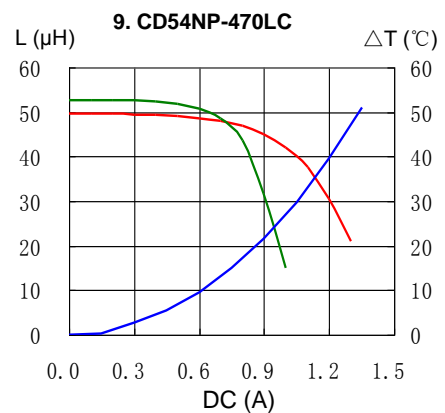
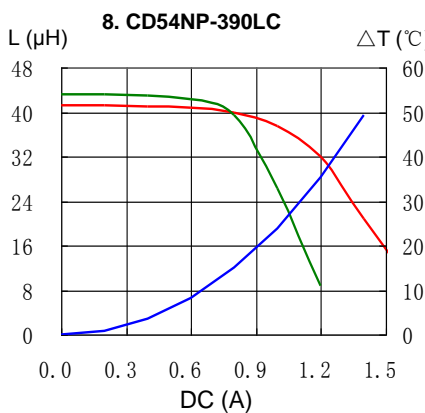
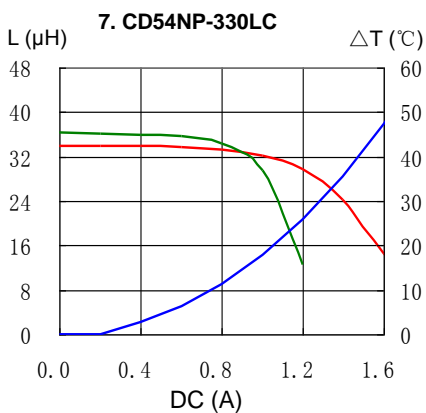
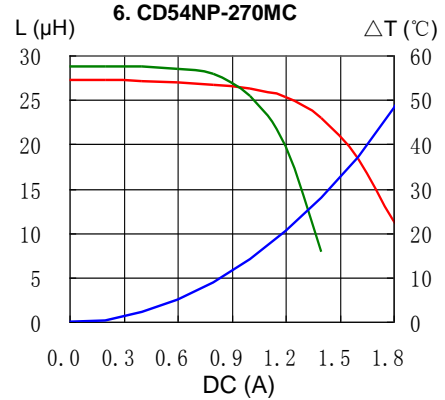
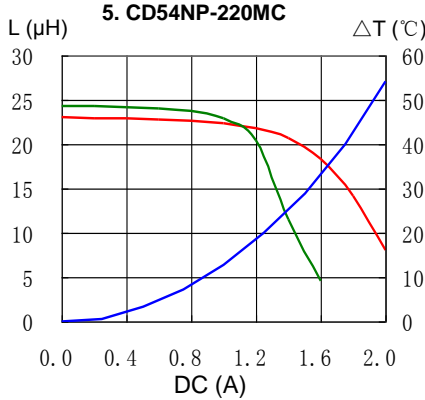
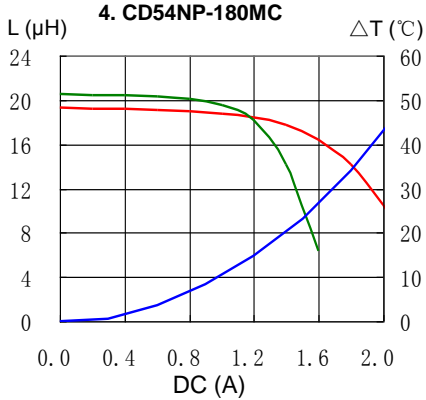
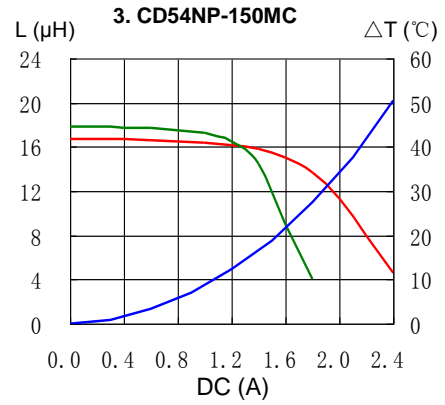
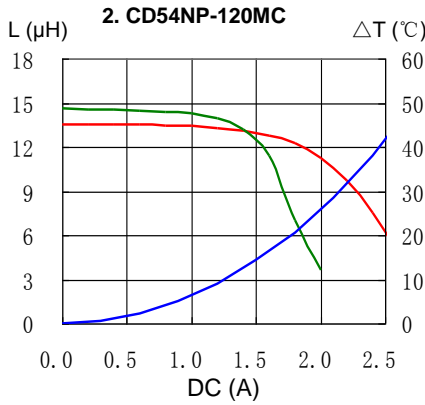
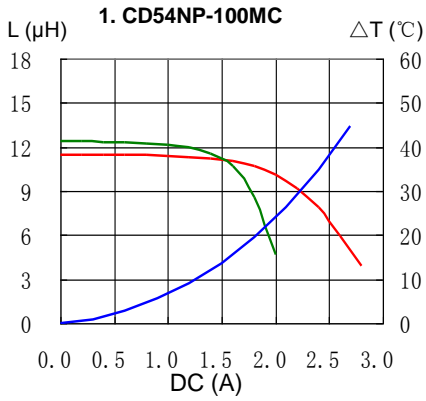
※2: Rated current: The DC current at which the inductance decreases to 90 % of its initial value or when  $\Delta t = 40^\circ\text{C}$ , whichever is lower ( $T_a = 20^\circ\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

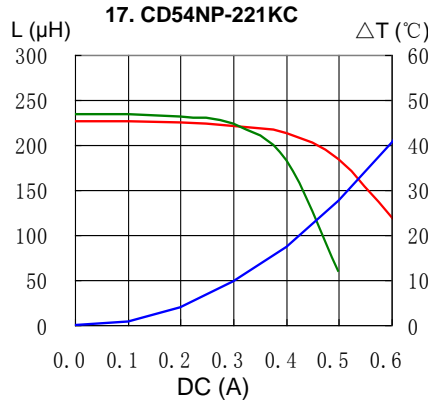
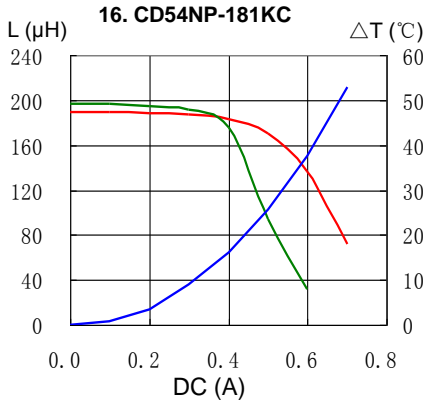
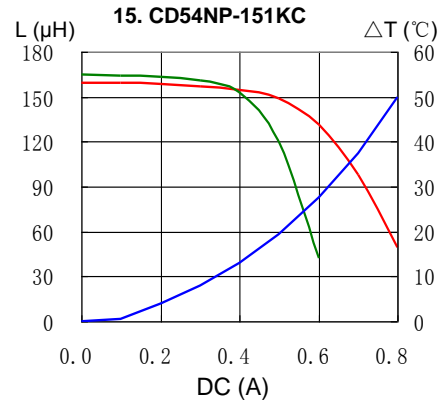
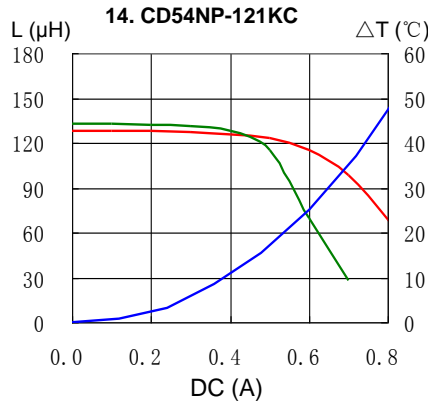
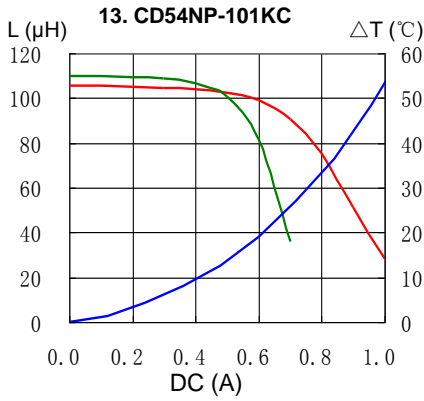


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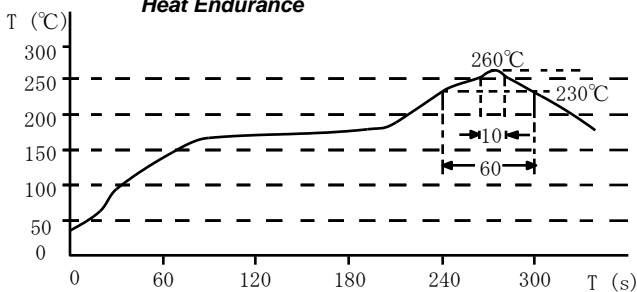
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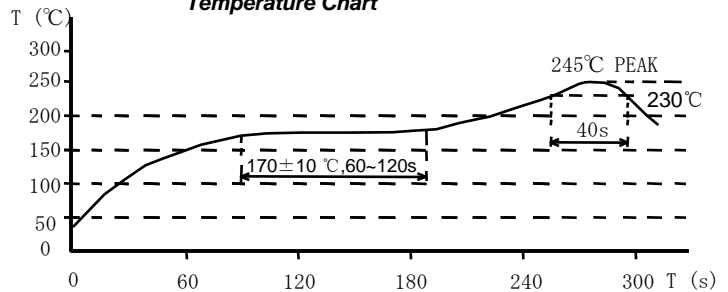


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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