

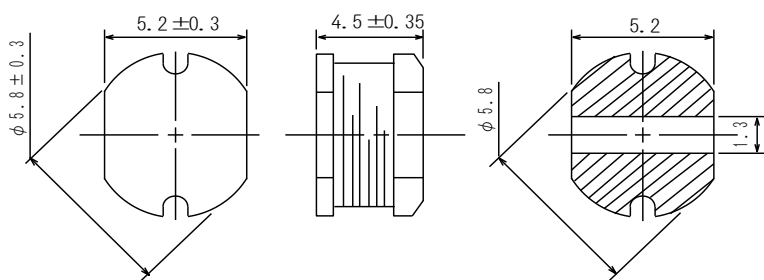
# SMD Power Inductor CD54



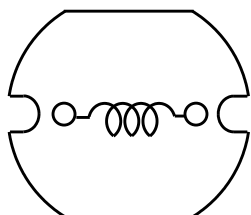
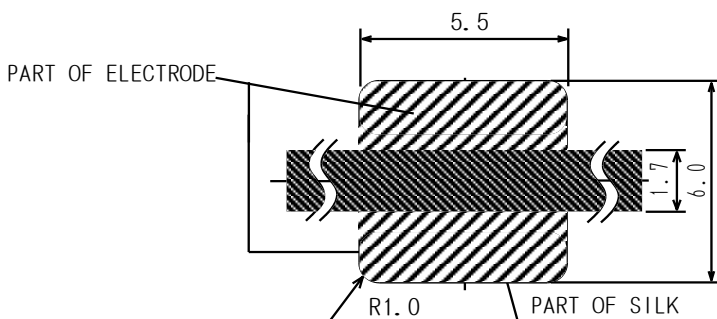
## Description

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

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## Environmental Data

- Operating temperature range:  $-40^{\circ}\text{C} \sim +100^{\circ}\text{C}$  (including coil's self temperature rise)
- Storage temperature range:  $-40^{\circ}\text{C} \sim +100^{\circ}\text{C}$
- Solder reflow temperature:  $260^{\circ}\text{C}$  peak.

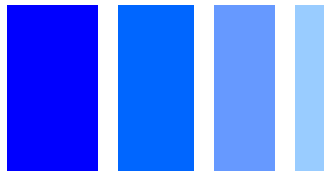
## Packaging

- 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.

# SMD Power Inductor CD54



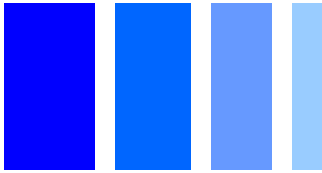
## Electrical Characteristics

| Part Name    | Stamp | Inductance<br>( $\mu\text{H}$ )<br>[within] ※1 | D.C.R ( $\Omega$ )<br>[Max.] (at 20°C) | Rated Current<br>(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.

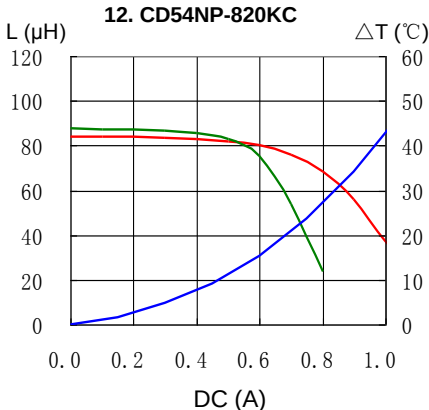
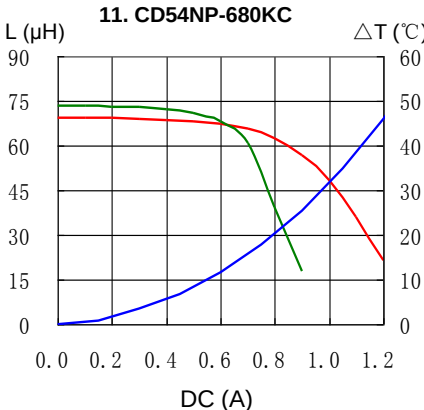
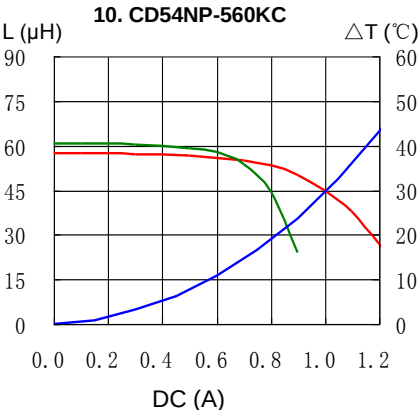
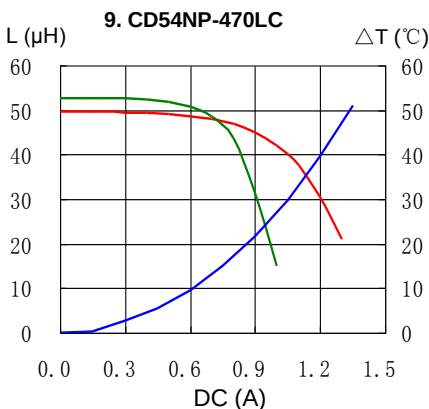
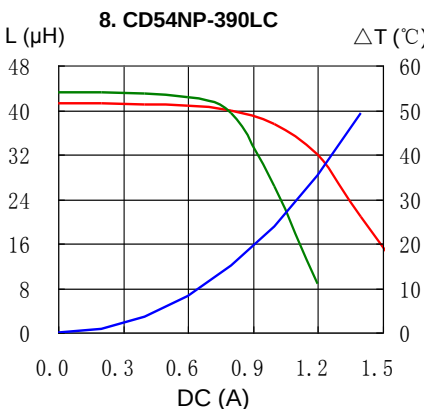
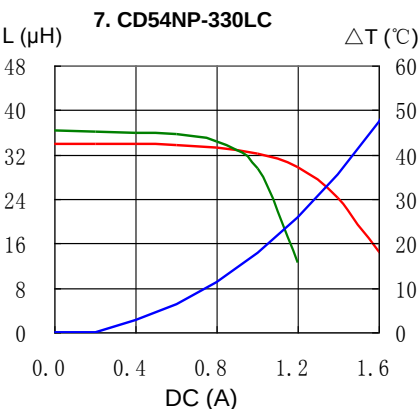
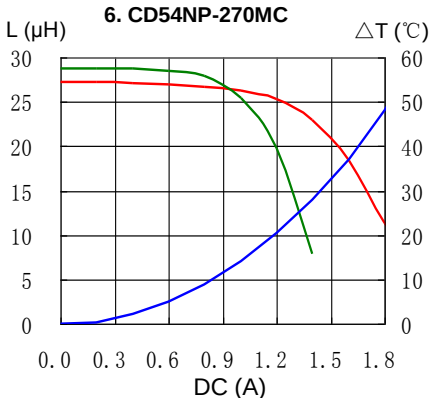
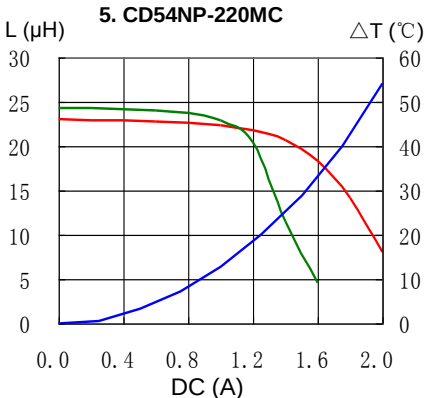
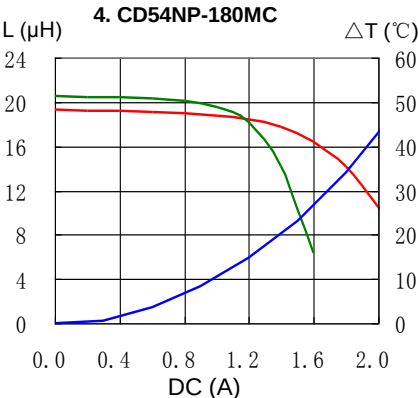
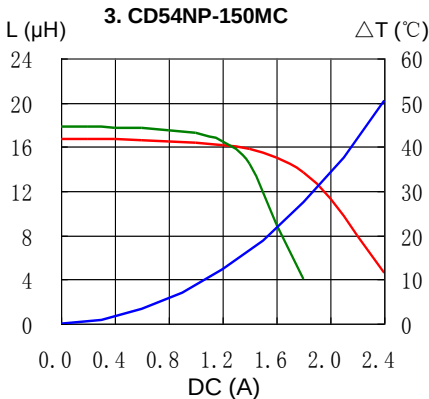
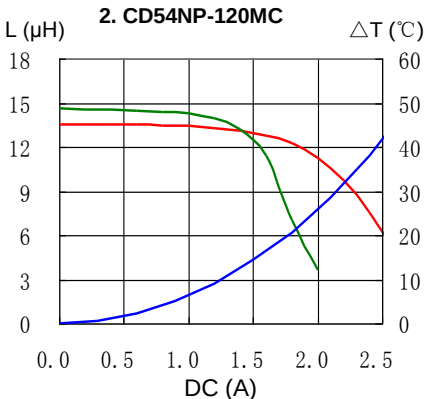
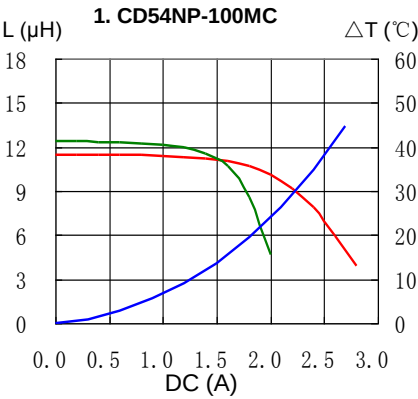
※2: Rated current: The DC current at which the inductance decreases to 90 % of it's initial value or when  $\Delta t = 40^\circ\text{C}$ , whichever is lower ( $T_a = 20^\circ\text{C}$ ).

# SMD Power Inductor CD54



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

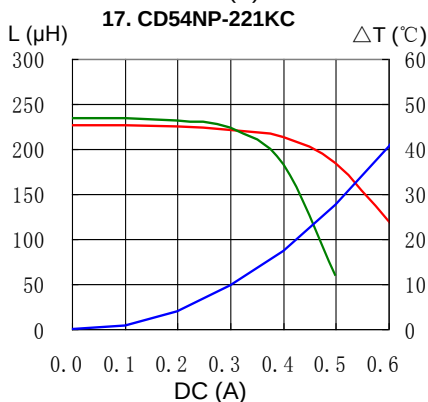
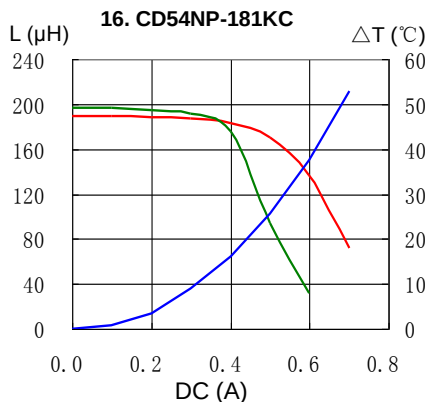
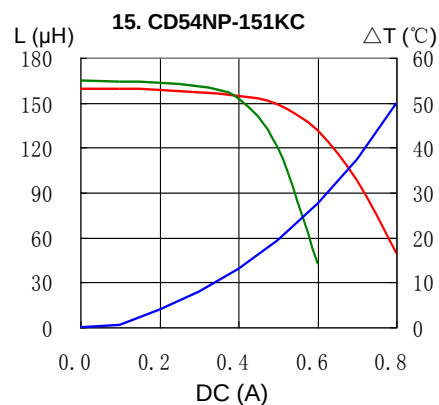
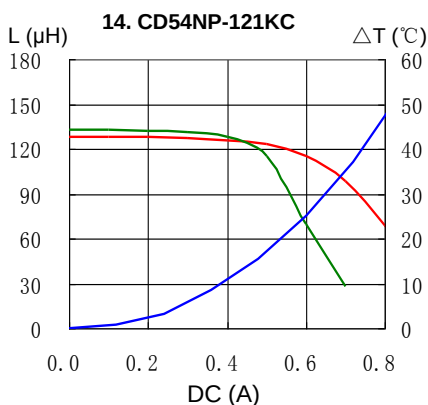
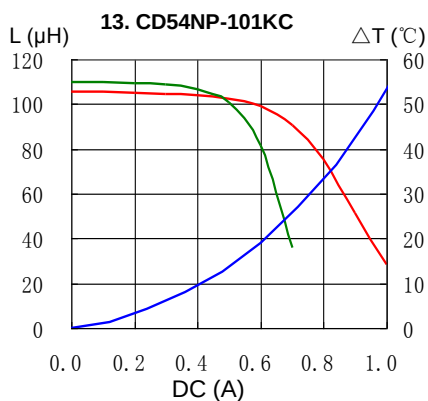


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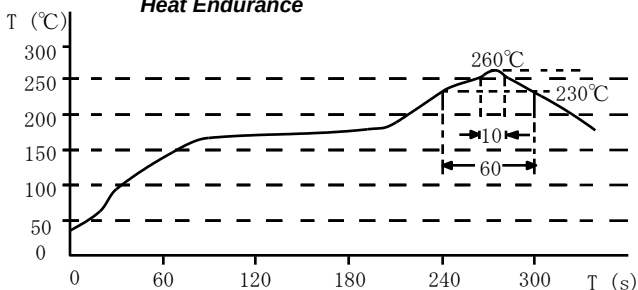
## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

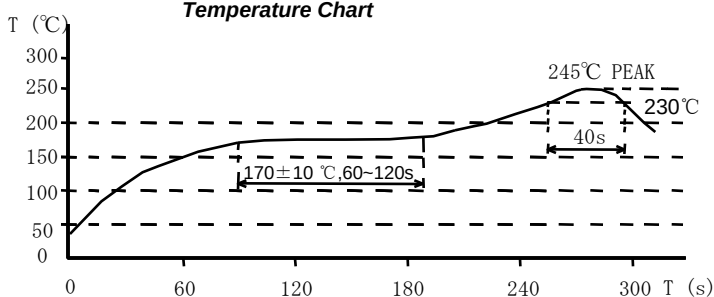


## Solder Reflow Condition

### Heat Endurance



### Temperature Chart



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