

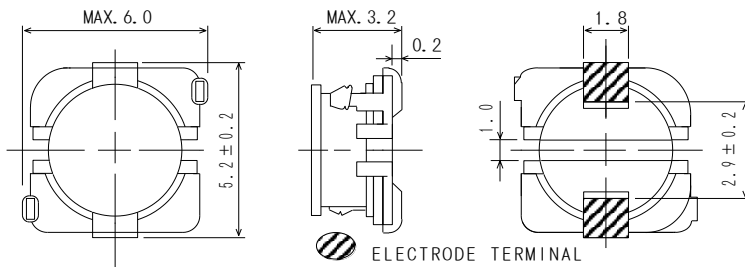
# SMD Power Inductor CDH53



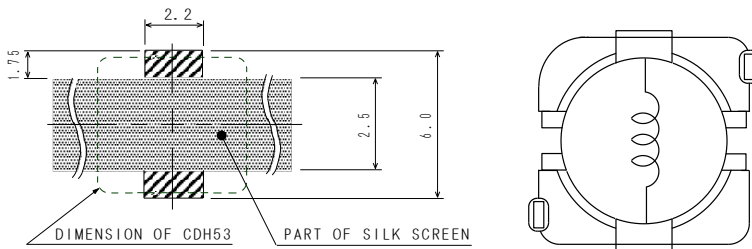
## Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 6.0 × 5.4 × 3.2 mm Max.
- Product weight: 0.18g(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" diameter reel
- 1500pcs per reel

## Applications

- Ideally used in PDA, DVD, HDD, DVC, Game machine, Notebook PC, etc as DC-DC converter



## Electrical Characteristics

Part Name	Stamp	Inductance ( $\mu\text{H}$ ) [ within ] ※1	D.C.R. ( $\Omega$ ) Max. (Typ.) (at 20°C)	Rated Current (A) ※2
CDH53NP-2R2MC	2R2	2.2 $\pm$ 20%	66m (51m)	2.03
CDH53NP-3R3MC	3R3	3.3 $\pm$ 20%	88m (68m)	1.88
CDH53NP-4R7MC	4R7	4.7 $\pm$ 20%	96m (74m)	1.68
CDH53NP-100LC	100	10 $\pm$ 15%	0.16(0.13)	1.23
CDH53NP-120LC	120	12 $\pm$ 15%	0.18(0.14)	1.12
CDH53NP-150KC	150	15 $\pm$ 10%	0.25(0.20)	1.00
CDH53NP-180KC	180	18 $\pm$ 10%	0.28(0.21)	0.88
CDH53NP-220KC	220	22 $\pm$ 10%	0.39(0.30)	0.80
CDH53NP-270KC	270	27 $\pm$ 10%	0.42(0.32)	0.72
CDH53NP-330KC	330	33 $\pm$ 10%	0.49(0.38)	0.67
CDH53NP-390KC	390	39 $\pm$ 10%	0.55(0.43)	0.64
CDH53NP-470KC	470	47 $\pm$ 10%	0.77(0.59)	0.53
CDH53NP-560KC	560	56 $\pm$ 10%	0.87(0.67)	0.50
CDH53NP-680JC	680	68 $\pm$ 5%	1.21(0.96)	0.45
CDH53NP-820JC	820	82 $\pm$ 5%	1.34(1.07)	0.39
CDH53NP-101JC	101	100 $\pm$ 5%	1.57(1.25)	0.37
CDH53NP-121JC	121	120 $\pm$ 5%	1.80(1.44)	0.34
CDH53NP-151JC	151	150 $\pm$ 5%	2.40(1.92)	0.31
CDH53NP-181JC	181	180 $\pm$ 5%	2.66(2.13)	0.30
CDH53NP-221JC	221	220 $\pm$ 5%	3.73(2.99)	0.26

※1. Inductance measuring frequency: 2.2 $\mu\text{H}$  ~ 4.7 $\mu\text{H}$  at 7.96 MHz;  
10 $\mu\text{H}$  ~ 220 $\mu\text{H}$  at 1kHz.

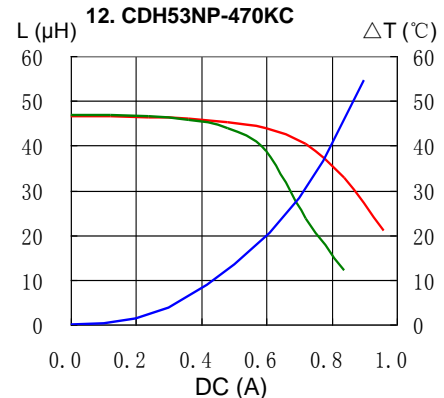
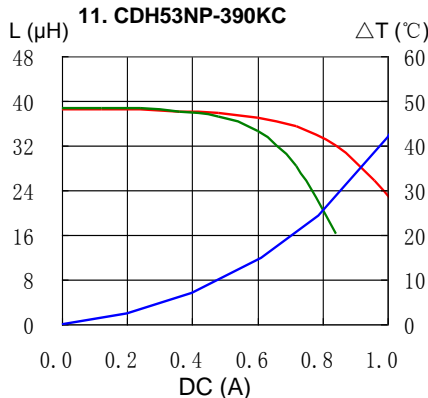
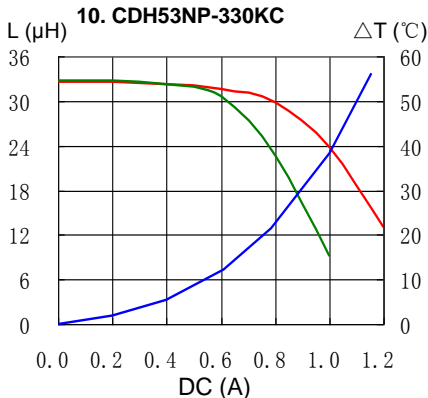
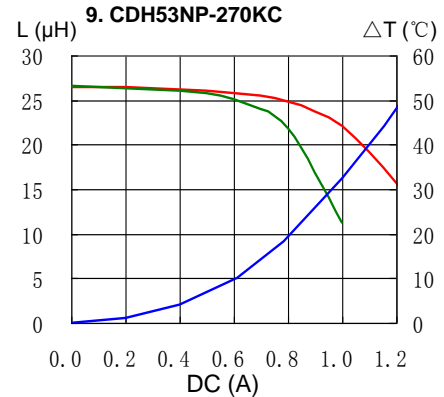
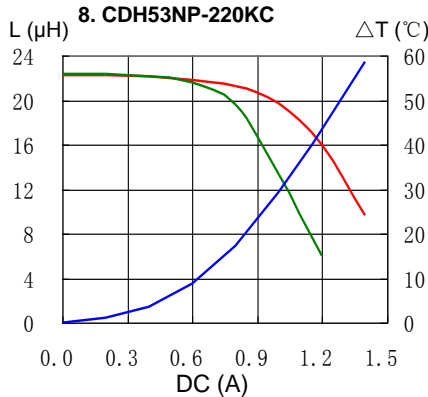
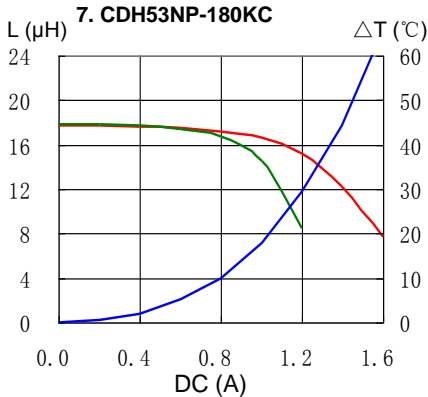
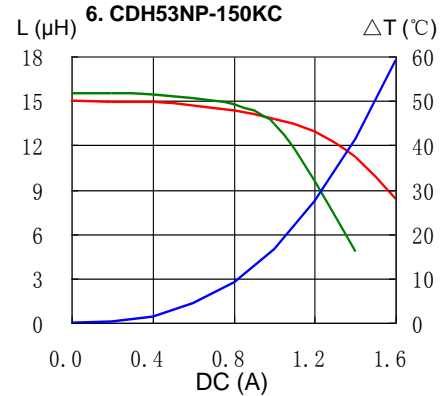
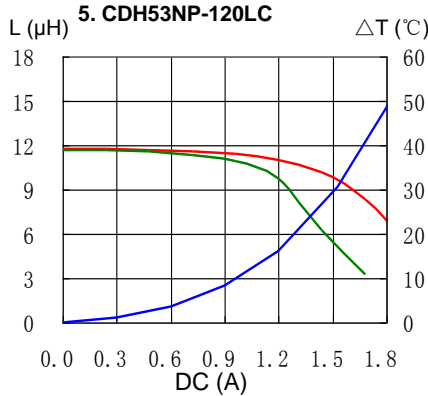
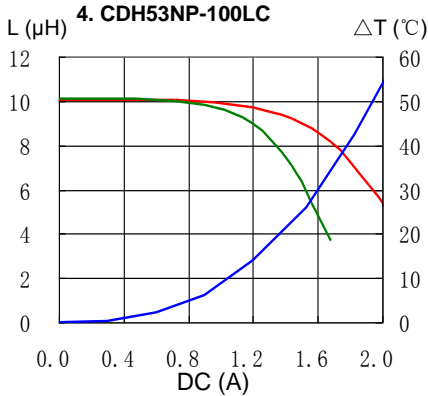
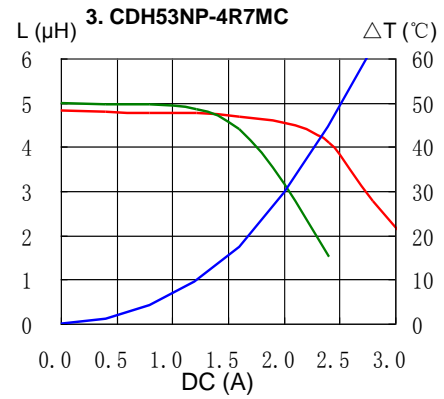
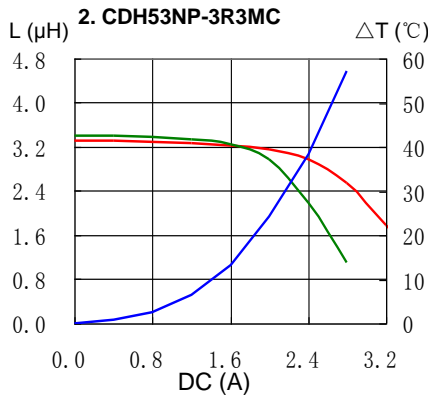
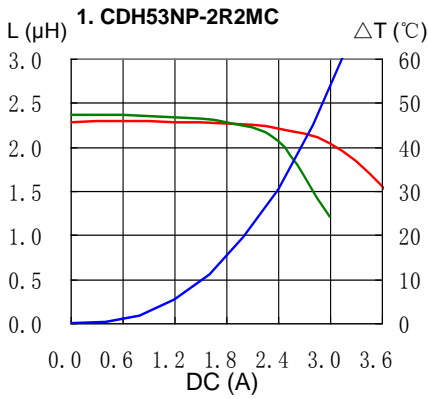
※2. Rated current: The DC current at which the inductance decreases to 90% of its initial value or when  $\Delta t=40^\circ\text{C}$ , whichever is lower ( $T_a=20^\circ\text{C}$ ).

# SMD Power Inductor CDH53



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

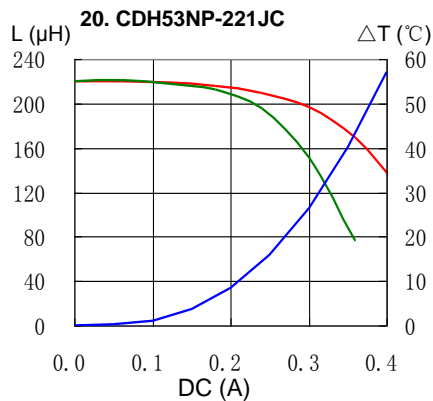
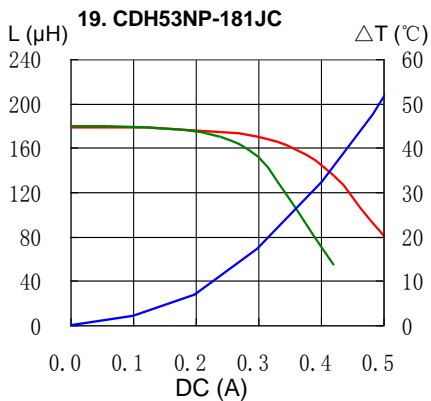
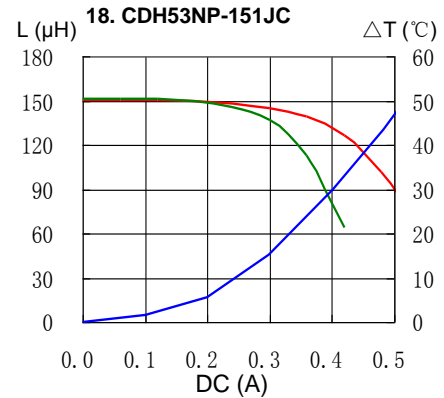
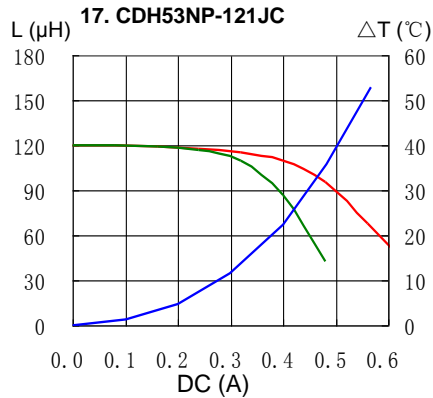
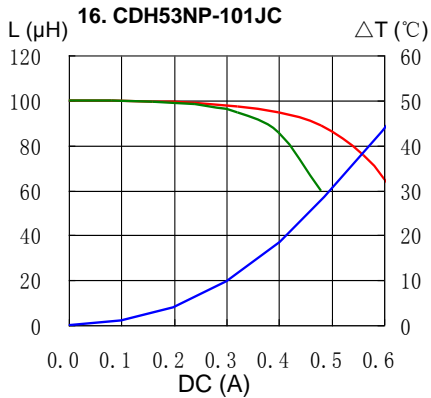
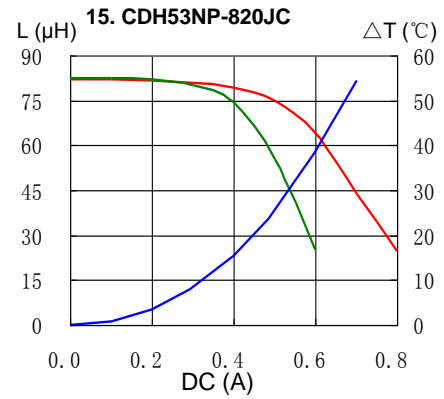
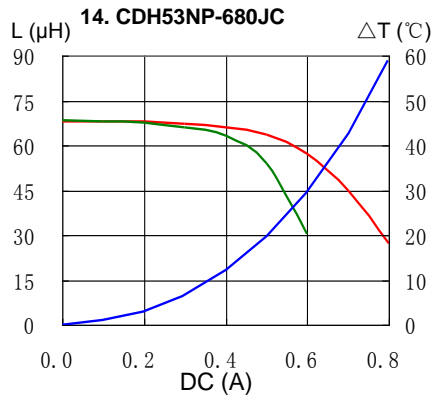
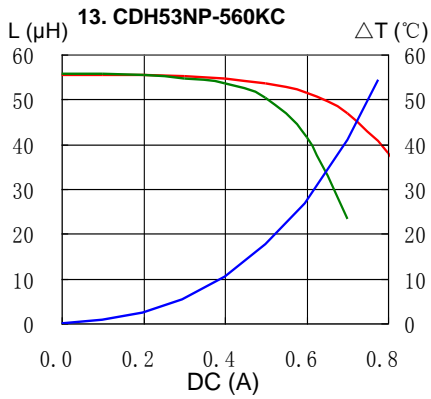


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## Saturation Current & Temperature Rise Graph

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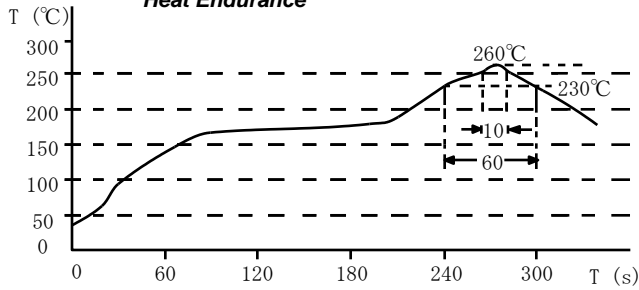


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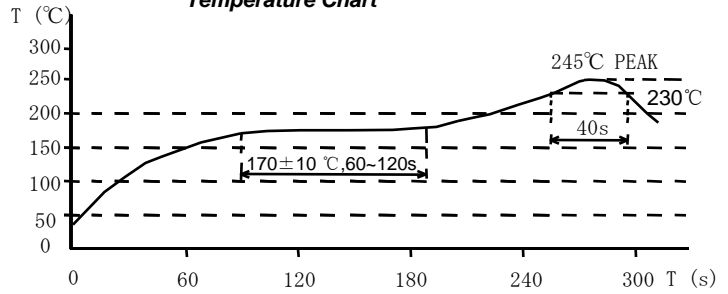


## Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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