

CDH53NP-151JC Datasheet

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DiGi Electronics Part Number	CDH53NP-151JC-DG
Manufacturer	Sumida America Components Inc.
Manufacturer Product Number	CDH53NP-151JC
Description	FIXED IND 150UH 310MA 2.4OHM SMD
Detailed Description	150 μ H Unshielded Drum Core, Wirewound Inductor 310 mA 2.4Ohm Max Nonstandard

This model CDH53NP-151JC is available at DiGi Electronics.

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
CDH53NP-151JC	Sumida America Components Inc.
Series:	Product Status:
CDH53	Active
Type:	Material - Core:
Drum Core, Wirewound	Ferrite
Inductance:	Tolerance:
150 μ H	\pm 5%
Current Rating (Amps):	Current - Saturation (Isat):
310 mA	-
Shielding:	DC Resistance (DCR):
Unshielded	2.40hm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
-	-40°C ~ 100°C
Inductance Frequency - Test:	Mounting Type:
1 kHz	Surface Mount
Package / Case:	Supplier Device Package:
Nonstandard	-
Size / Dimension:	Height - Seated (Max):
0.236" L x 0.205" W (6.00mm x 5.20mm)	0.126" (3.20mm)

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
ECCN:	HTSUS:
EAR99	8504.50.4000

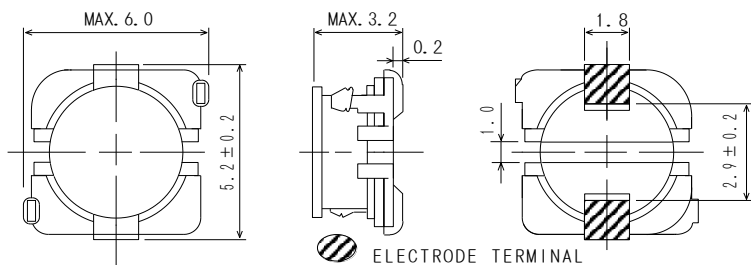
SMD Power Inductor CDH53



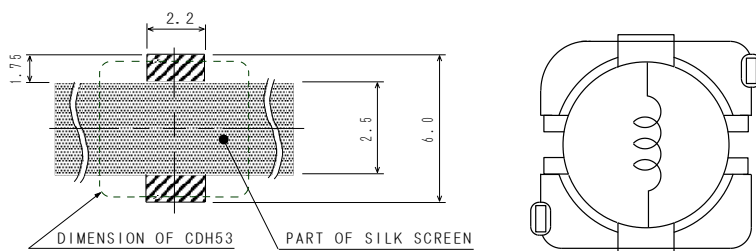
Description

- 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

SMD Power Inductor

CDH53



Electrical Characteristics

Part Name	Stamp	Inductance (μH) [within] ※1	D.C.R. (Ω) 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 μH ~ 4.7 μH at 7.96 MHz;
10 μH ~ 220 μH at 1kHz.

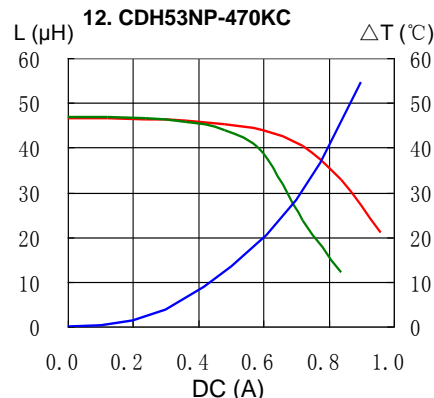
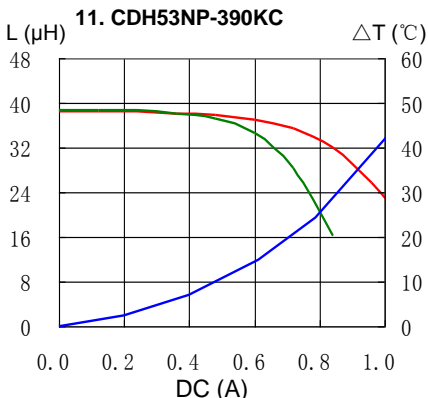
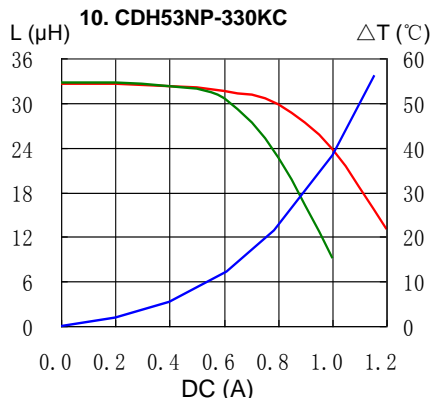
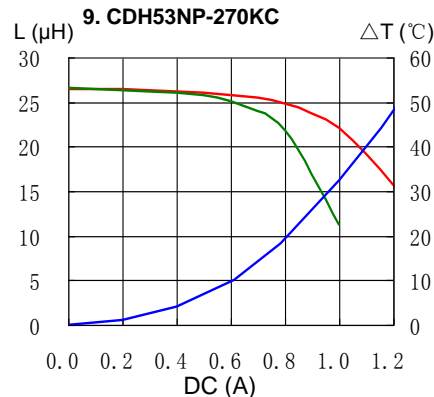
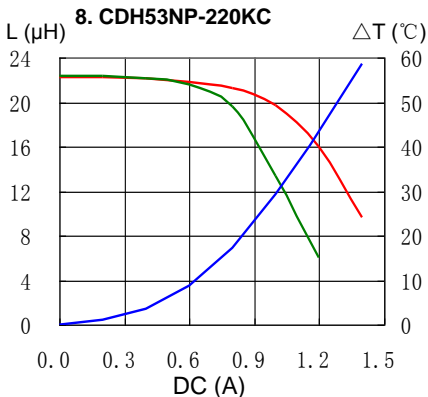
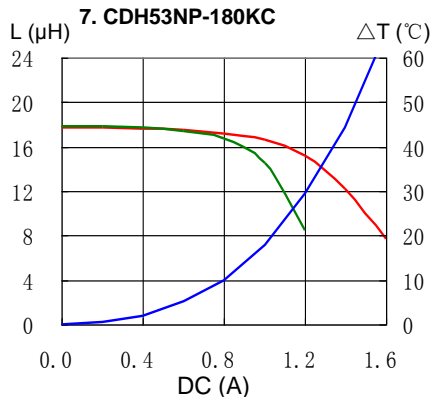
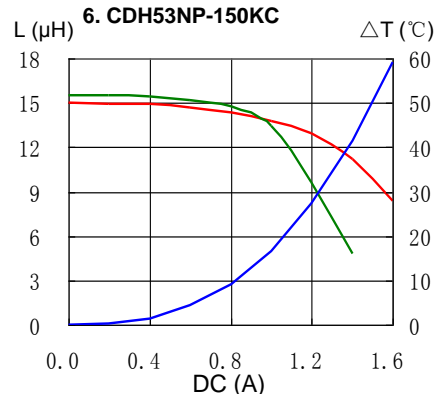
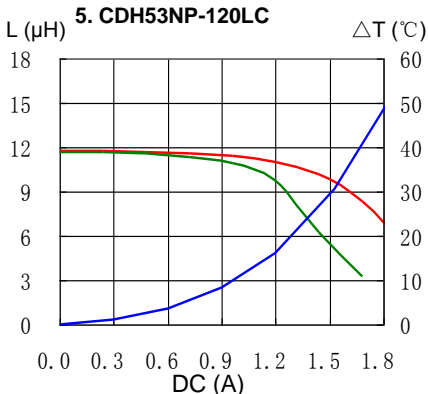
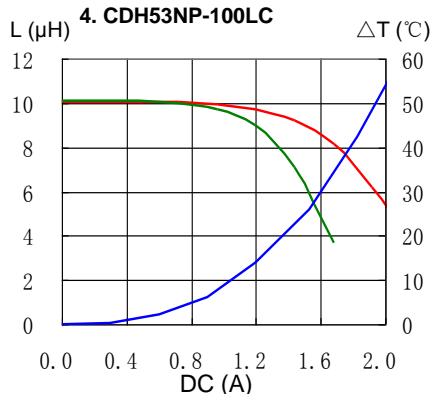
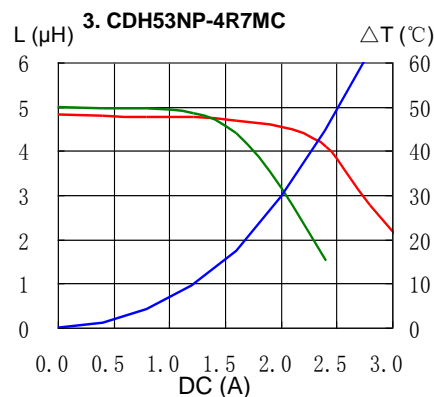
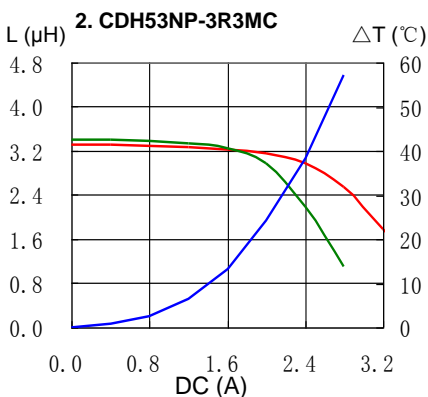
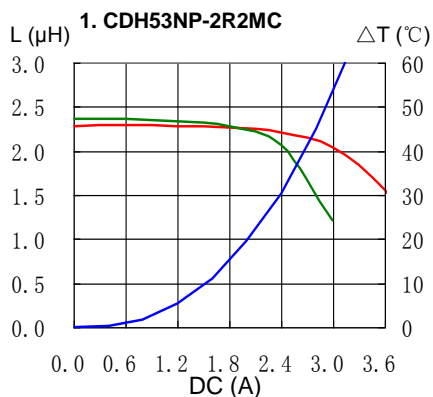
※2. Rated current: The DC current at which the inductance decreases to 90% of its initial value or when $\Delta t=40^\circ\text{C}$, whichever is lower ($T_a=20^\circ\text{C}$).

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

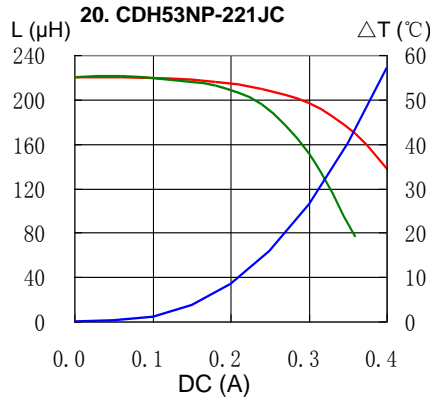
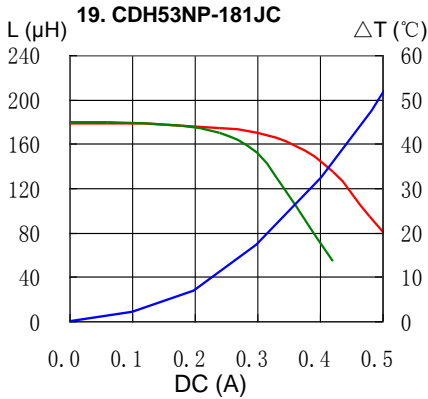
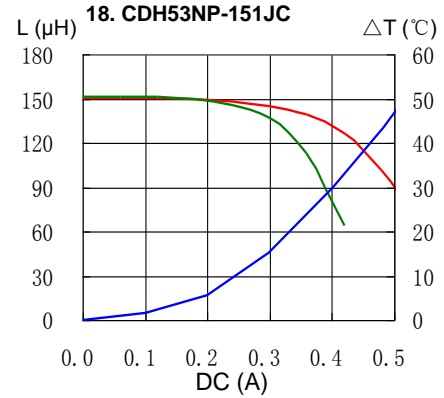
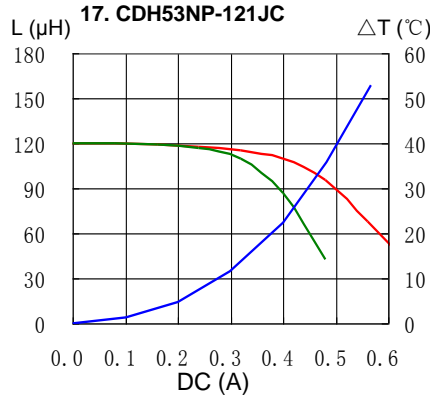
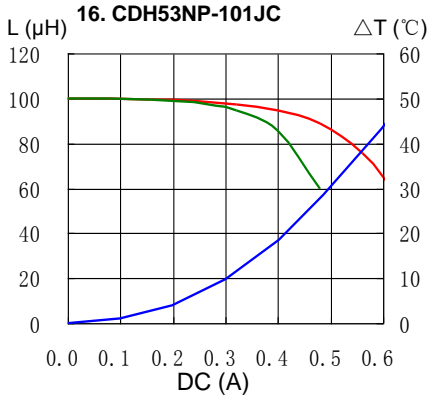
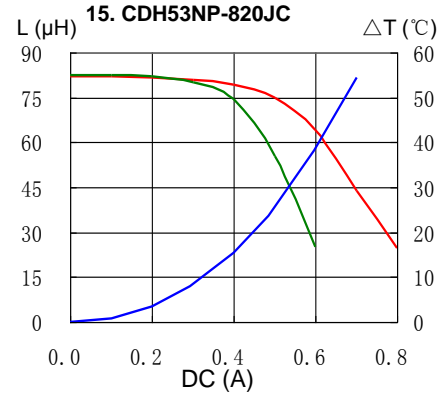
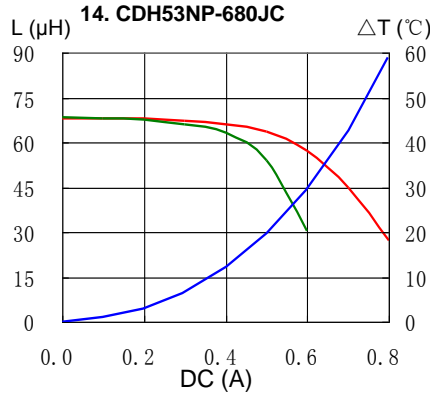
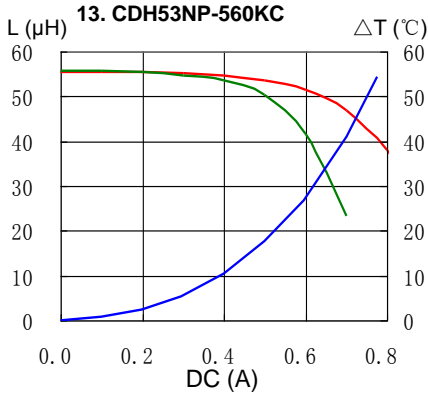


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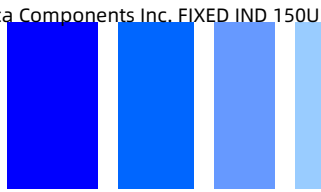


Saturation Current & Temperature Rise Graph

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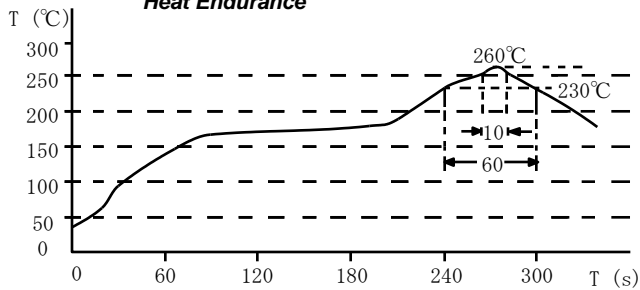


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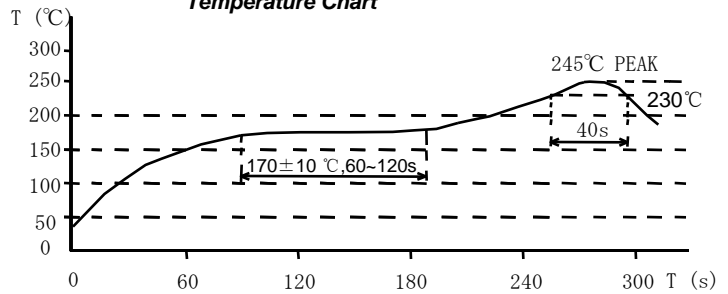


Solder Reflow Condition

Heat Endurance



Temperature Chart



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