

# CDRH5D18NP-560NC Datasheet




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DiGi Electronics Part Number	CDRH5D18NP-560NC-DG
Manufacturer	<a href="#">Sumida America Components Inc.</a>
Manufacturer Product Number	CDRH5D18NP-560NC
Description	FIXED IND 56UH 500MA 665MOHM SMD
Detailed Description	56 $\mu$ H Shielded Inductor 500 mA 665mOhm Max Nonstandard

This model CDRH5D18NP-560NC is available at DiGi Electronics.

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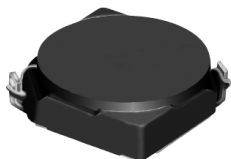
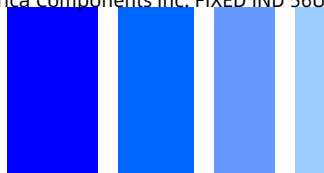
Manufacturer Product Number:	Manufacturer:
CDRH5D18NP-560NC	Sumida America Components Inc.
Series:	Product Status:
CDRH5D18	Active
Type:	Material - Core:
-	Ferrite
Inductance:	Tolerance:
56 $\mu$ H	$\pm$ 30%
Current Rating (Amps):	Current - Saturation (Isat):
500 mA	-
Shielding:	DC Resistance (DCR):
Shielded	665mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
-	-40°C ~ 100°C
Inductance Frequency - Test:	Mounting Type:
10 kHz	Surface Mount
Package / Case:	Supplier Device Package:
Nonstandard	-
Size / Dimension:	Height - Seated (Max):
0.224" L x 0.224" W (5.70mm x 5.70mm)	0.079" (2.00mm)

## Environmental & Export classification

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

# SMD Power Inductor

## CDRH5D18



### Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 6.0 × 6.0 × 2.0 mm Max.
- Product weight: 220mg(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

### 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.

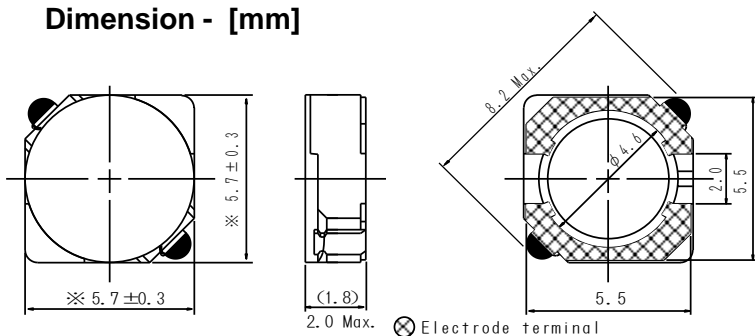
### Packaging

- Carrier tape and reel packaging
- 13.0" diameter reel
- 2000pcs per reel

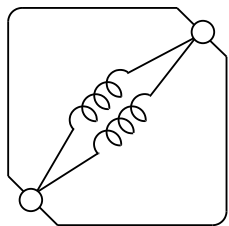
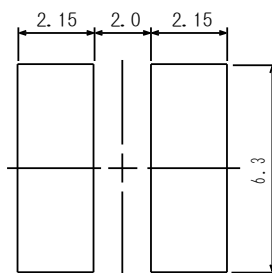
### Applications

- Ideally used in Mobile phone, MP3, PDA, HDD, DSC/DVC, Game machine, etc as DC-DC converter inductors.

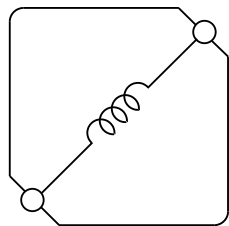
### Dimension - [mm]



### Land pattern and Schematics - [mm]



2.2µH



3.3µH ~ 100µH

# SMD Power Inductor

## CDRH5D18



### Electrical Characteristics

PART NO.	STAMP	INDUCTANCE ( $\mu\text{H}$ ) [WITHIN] ※1	D.C.R. ( $\Omega$ ) [MAX.] (TYP.) (at 20°C)※2	RATED CURRENT (A) ※2
CDRH5D18NP-2R2NC	2R2	2.2 $\mu\text{H} \pm 30\%$	37m (27m)	2.4
CDRH5D18NP-3R3NC	3R3	3.3 $\mu\text{H} \pm 30\%$	47m (35m)	2.0
CDRH5D18NP-4R1NC	4R1	4.1 $\mu\text{H} \pm 30\%$	57m (42m)	1.95
CDRH5D18NP-5R4NC	5R4	5.4 $\mu\text{H} \pm 30\%$	76m (56m)	1.60
CDRH5D18NP-6R2NC	6R2	6.2 $\mu\text{H} \pm 30\%$	96m (71m)	1.40
CDRH5D18NP-8R9NC	8R9	8.9 $\mu\text{H} \pm 30\%$	116m (86m)	1.25
CDRH5D18NP-100NC	100	10 $\mu\text{H} \pm 30\%$	124m (92m)	1.20
CDRH5D18NP-120NC	120	12 $\mu\text{H} \pm 30\%$	153m (113m)	1.10
CDRH5D18NP-150NC	150	15 $\mu\text{H} \pm 30\%$	196m (145m)	0.97
CDRH5D18NP-180NC	180	18 $\mu\text{H} \pm 30\%$	210m (155m)	0.85
CDRH5D18NP-220NC	220	22 $\mu\text{H} \pm 30\%$	290m (215m)	0.80
CDRH5D18NP-270NC	270	27 $\mu\text{H} \pm 30\%$	330m (245m)	0.75
CDRH5D18NP-330NC	330	33 $\mu\text{H} \pm 30\%$	385m (285m)	0.65
CDRH5D18NP-390NC	390	39 $\mu\text{H} \pm 30\%$	520m (385m)	0.57
CDRH5D18NP-470NC	470	47 $\mu\text{H} \pm 30\%$	595m (440m)	0.54
CDRH5D18NP-560NC	560	56 $\mu\text{H} \pm 30\%$	665m (493m)	0.50
CDRH5D18NP-680NC	680	68 $\mu\text{H} \pm 30\%$	840m (622m)	0.43
CDRH5D18NP-820NC	820	82 $\mu\text{H} \pm 30\%$	978m (725m)	0.41
CDRH5D18NP-101NC	101	100 $\mu\text{H} \pm 30\%$	1.2 (895m)	0.36

※1. Inductance measuring condition: at 10kHz.

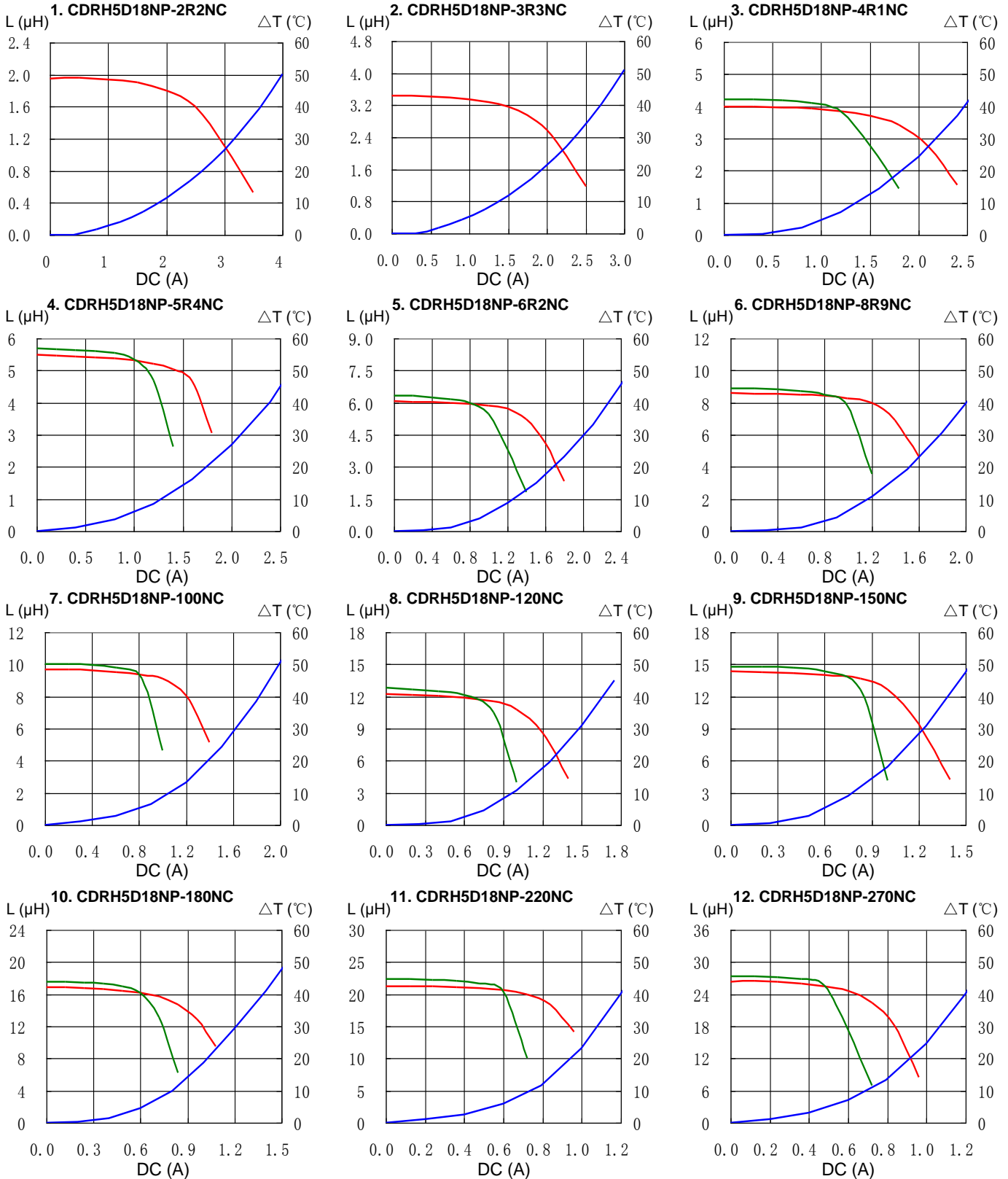
※2. Rated current: The DC current at which the inductance decreases to 65% of it's nominal value or when  $\Delta t=30^\circ\text{C}$ , whichever is lower ( $T_a=20^\circ\text{C}$ ).

# SMD Power Inductor CDRH5D18



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

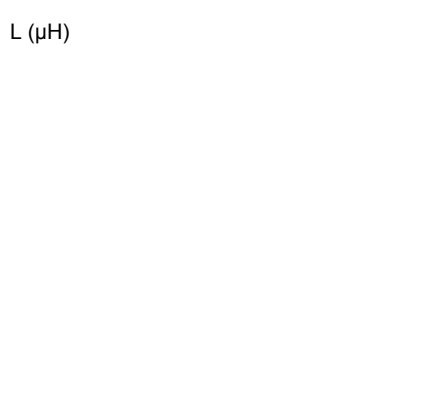
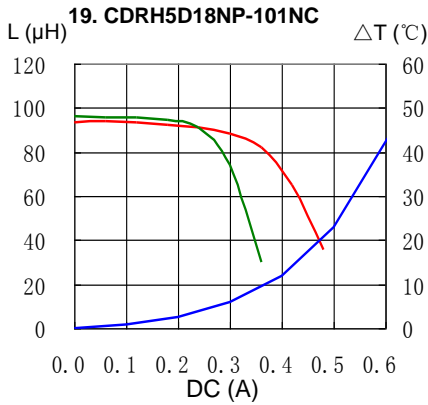
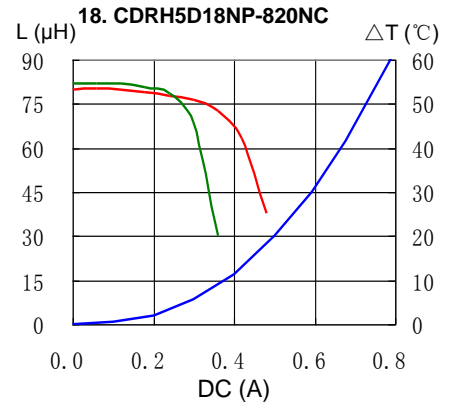
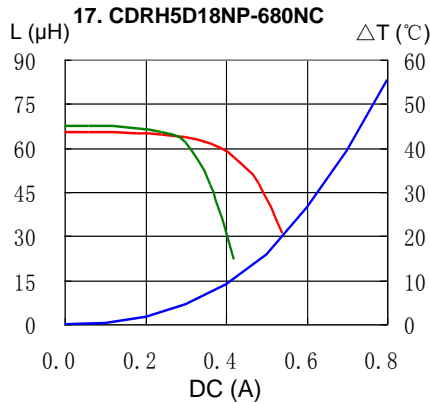
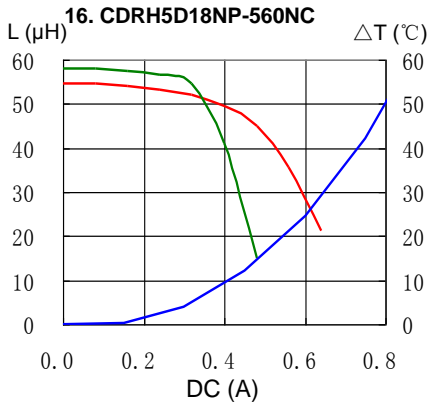
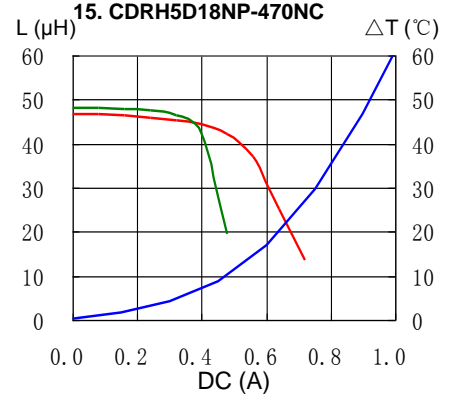
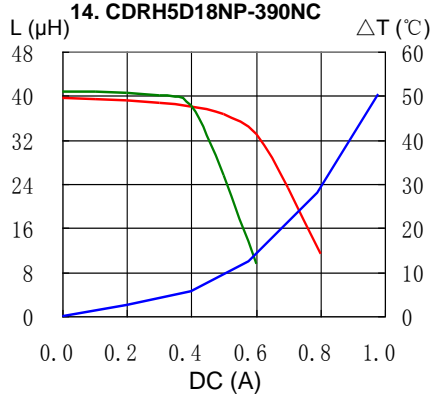
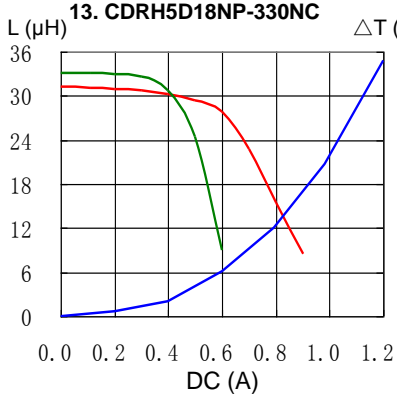


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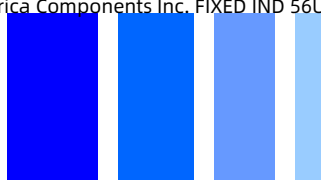
## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$



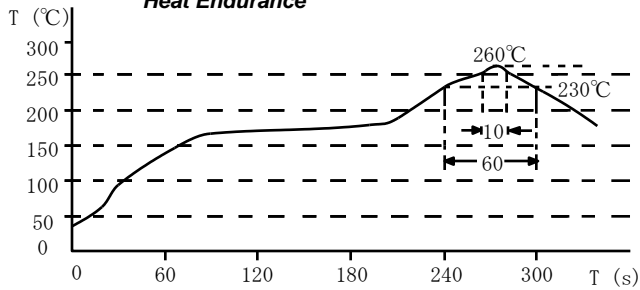
# SMD Power Inductor

## CDRH5D18

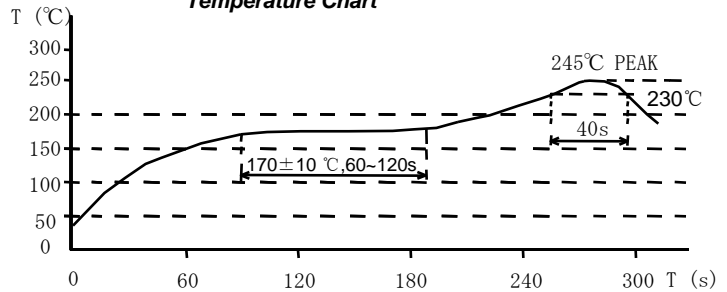


### Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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