

# CDEP1411NP-120MC-150 Datasheet



DiGi Electronics Part Number	CDEP1411NP-120MC-150-DG
Manufacturer	<a href="#">Sumida America Components Inc.</a>
Manufacturer Product Number	CDEP1411NP-120MC-150
Description	INDUCTOR
Detailed Description	12 $\mu$ H Shielded Wirewound Inductor 10.3 A 7.56mOhm Max Nonstandard

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## Purchase and inquiry

Manufacturer Product Number:

CDEP1411NP-120MC-150

Series:

CDEP1411

Type:

Wirewound

Inductance:

12  $\mu$ H

Current Rating (Amps):

10.3 A

Shielding:

Shielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.472" (12.00mm)

Manufacturer:

Sumida America Components Inc.

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

$\pm$ 20%

Current - Saturation (Isat):

8.5A

DC Resistance (DCR):

7.56mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-40°C ~ 105°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.571" L x 0.571" W (14.50mm x 14.50mm)

## Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

# SMD Power Inductor

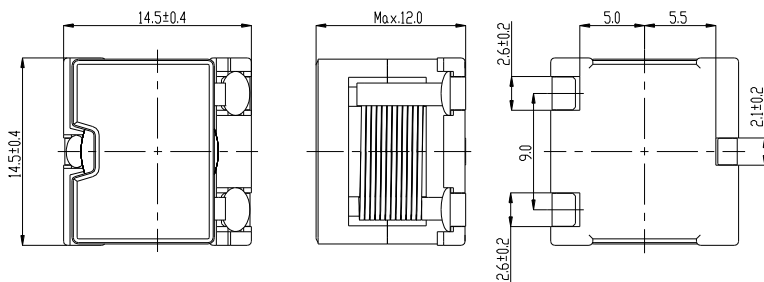
## CDEP1411



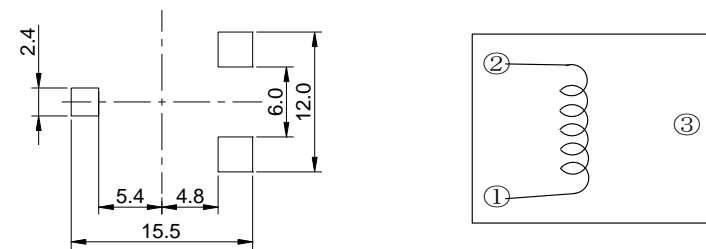
### Description

- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 14.9 × 14.9 × 12.0mm Max.
- Product weight: 7.8g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

### Dimension - [mm]



### Land pattern and Schematics - [mm]



### Environmental Data

- Operating temperature range:  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$  (including coil's self temperature rise)
- Storage temperature range:  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- Solder reflow temperature:  $260^{\circ}\text{C}$  peak.

### Packaging

- Carrier tape and reel packaging.

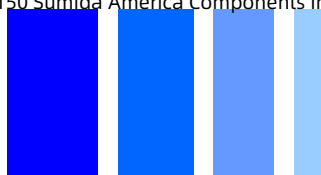
### Applications

- Ideally used in PC , game machine and other high current power supply.



# SMD Power Inductor

## CDEP1411



### Electrical Characteristics - 1

Part name	Stamp	Inductance (uH) [Within] ※1	D.C.R. (mΩ) [Max.] (at 20°C)	The saturation current (A) ※2		Temperature rise current (A) ※3
				(at20°C)	(at105°C)	
CDEP1411NP-7R4MC-150	7R4MH	7.4 ± 20%	4.44(3.7)	10.8	8.4	13.0
CDEP1411NP-100MC-150	100MH	10 ± 20%	5.40(4.5)	9.2	6.9	12.5
CDEP1411NP-120MC-150	120MH	12 ± 20%	7.56(6.3)	8.5	6.5	10.3
CDEP1411NP-150MC-150	150MH	15 ± 20%	8.40(7.0)	8.0	6.0	9.6
CDEP1411NP-180MC-150	180MH	18 ± 20%	9.72(8.1)	7.2	5.5	9.0
CDEP1411NP-220MC-150	220MH	22 ± 20%	11.28(9.4)	6.4	5.0	8.3

### Electrical Characteristics - 2

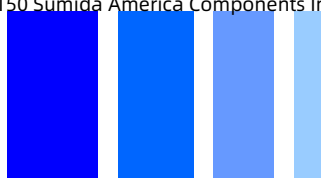
Part name	Stamp	Inductance (uH) [Within] ※1	D.C.R. (mΩ) [Max.] (at 20°C)	The saturation current (A) ※2		Temperature rise current (A) ※3
				(at20°C)	(at105°C)	
CDEP1411NP-4R7MC-95	4R7ML	4.7 ± 20%	4.44(3.7)	18.4	14.0	13.0
CDEP1411NP-6R1MC-95	6R1ML	6.1 ± 20%	5.40(4.5)	16.4	12.4	12.5
CDEP1411NP-7R7MC-95	7R7ML	7.7 ± 20%	7.56(6.3)	14.8	11.2	10.3
CDEP1411NP-100MC-95	100ML	10 ± 20%	8.40(7.0)	13.1	10.0	9.6
CDEP1411NP-120MC-95	120ML	12 ± 20%	9.72(8.1)	11.8	9.0	9.0
CDEP1411NP-140MC-95	140ML	14 ± 20%	11.28(9.4)	10.9	8.3	8.3

※1. Measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 75% of it's nominal value.

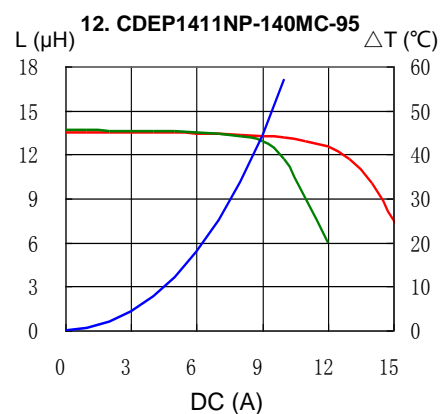
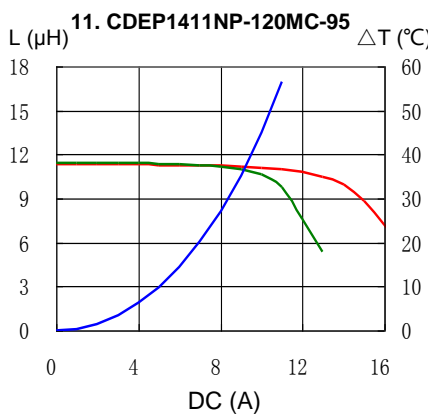
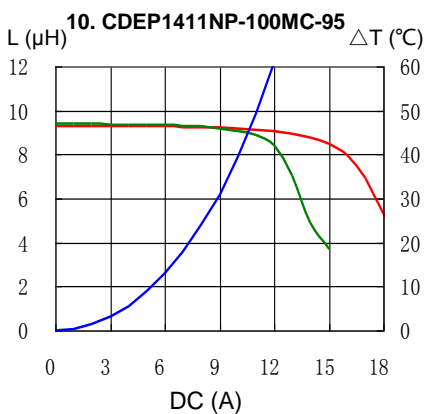
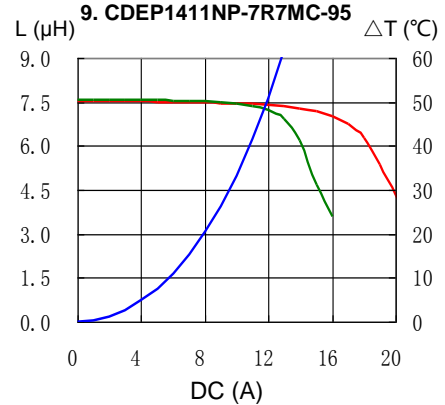
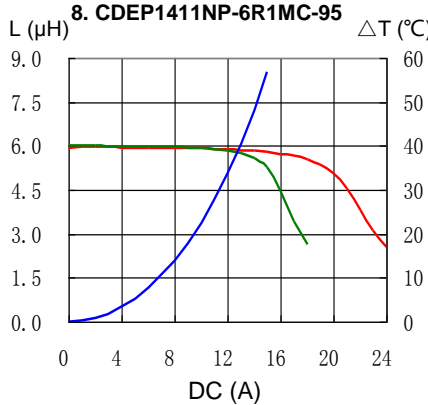
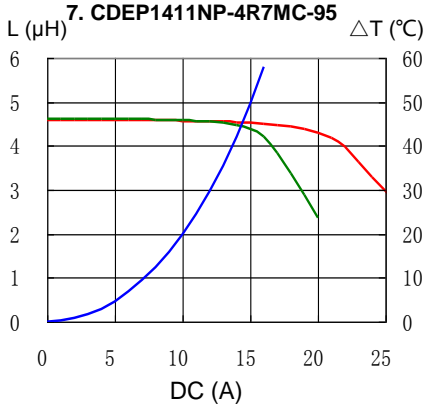
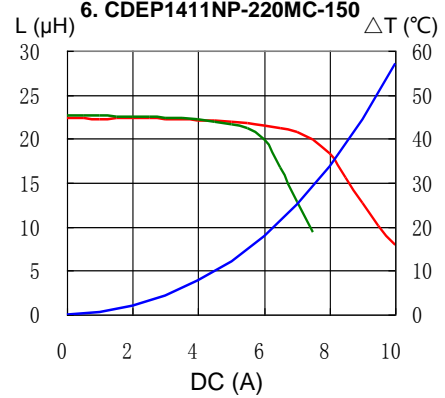
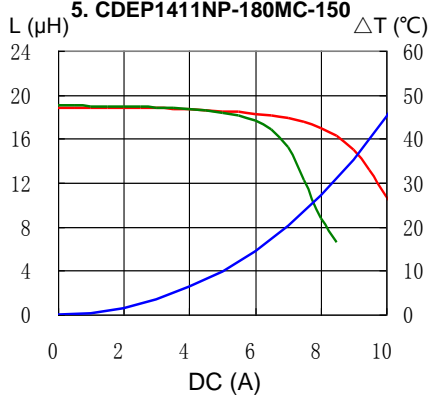
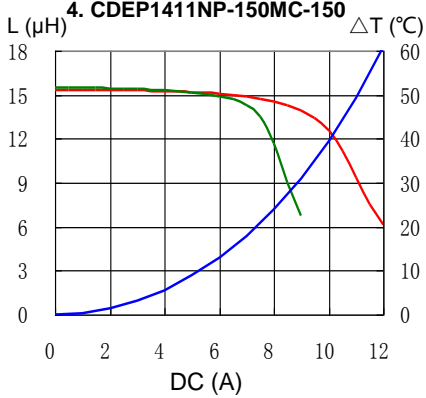
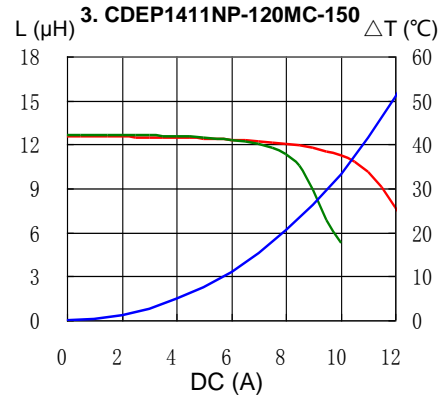
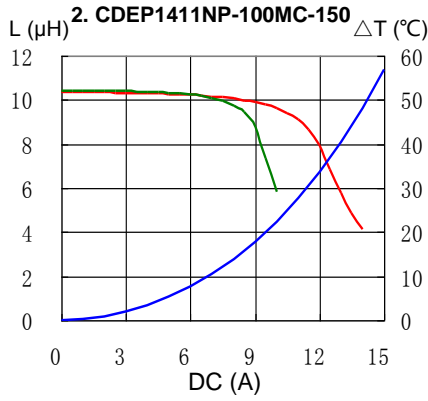
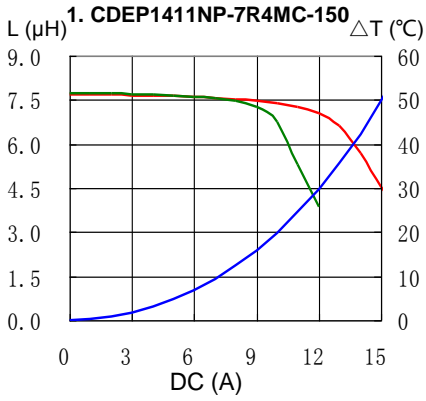
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t = 40^\circ\text{C}$  ( $T_a = 20^\circ\text{C}$ ).

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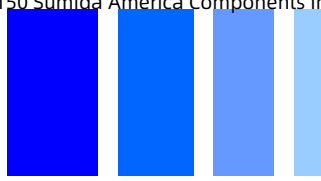


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

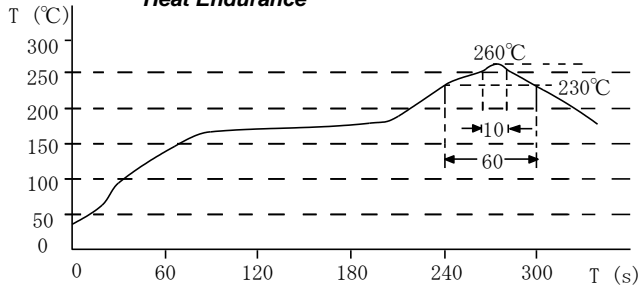


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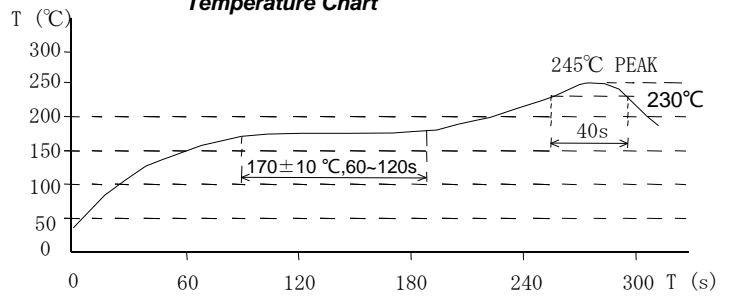


## Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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