

# SMD Power Inductor CDEP1711



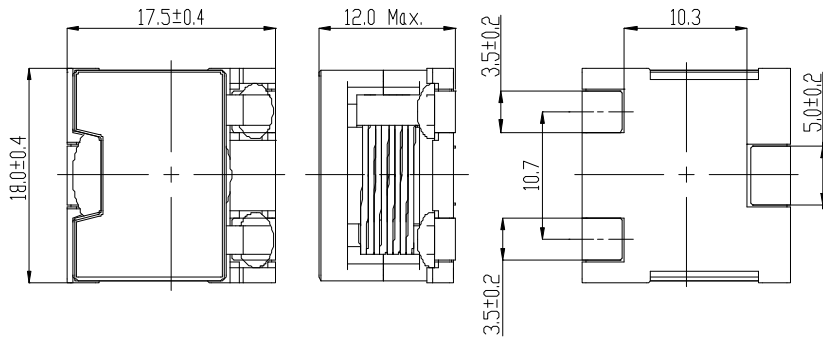
Halogen  
Free



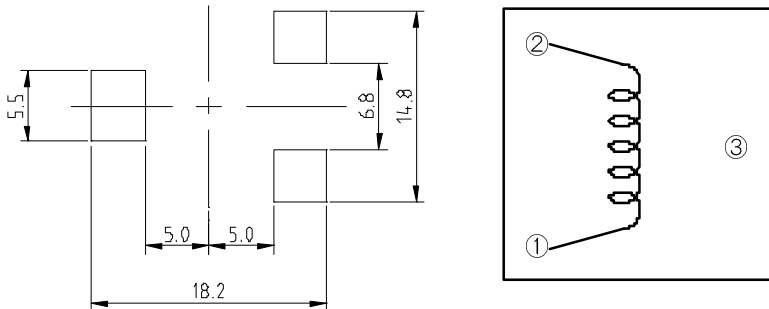
## Description

- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 18.4 × 17.9 × 12.0 mm Max.
- Product weight: 11.4g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## Environmental Data

- Operating temperature range: -40°C~+125°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+105°C
- Solder reflow temperature: 260 °C peak.

## Packaging

- Carrier tape and reel packaging.
- 13.0" diameter reel
- 100pcs per reel

## Applications

- Ideally used in amusement equipment, base station and other high current application.

### Electrical Characteristics- 1

Part No.	Stamp	Inductance ( $\mu$ H) [Within] ※1	D.C.R. (m $\Omega$ ) [Max.] (at 20°C) ※2	Saturation current(A) ※3		Temperature rise current (A)※4
				at 20°C	at 105°C	
CDEP1711NP-22 $\emptyset$ MC-325	220ML	22 $\pm$ 20%	5.52(4.6)	5.6	4.4	15.3
CDEP1711NP-27 $\emptyset$ MC-325	270ML	27 $\pm$ 20%	6.12(5.1)	5.2	4.2	14.5
CDEP1711NP-33 $\emptyset$ MC-325	330ML	33 $\pm$ 20%	7.44(6.2)	4.8	3.8	12.0
CDEP1711NP-39 $\emptyset$ MC-325	390ML	39 $\pm$ 20%	10.3(8.6)	4.3	3.4	10.0
CDEP1711NP-47 $\emptyset$ MC-325	470ML	47 $\pm$ 20%	11.3(9.4)	4.0	3.1	9.5

### Electrical Characteristics- 2

Part No.	Stamp	Inductance ( $\mu$ H) [Within] ※1	D.C.R.(m $\Omega$ ) [Max.] (at 20°C) ※2	Saturation current (A)※3		Temperature rise current (A)※4
				at 20°C	at 105°C	
CDEP1711NP-1 $\emptyset$ MC-15 $\emptyset$	100MS	10 $\pm$ 20%	5.52(4.6)	13.2	10.4	15.3
CDEP1711NP-12 $\emptyset$ MC-15 $\emptyset$	120MS	12 $\pm$ 20%	6.12(5.1)	11.6	9.0	14.5
CDEP1711NP-15 $\emptyset$ MC-15 $\emptyset$	150MS	15 $\pm$ 20%	7.44(6.2)	10.5	7.8	12.0
CDEP1711NP-18 $\emptyset$ MC-15 $\emptyset$	180MS	18 $\pm$ 20%	10.3(8.6)	9.6	7.4	10.0
CDEP1711NP-22 $\emptyset$ MC-15 $\emptyset$	220MS	22 $\pm$ 20%	11.3(9.4)	8.8	6.8	9.5

### Electrical Characteristics- 3

Part No.	Stamp	Inductance ( $\mu$ H) [Within] ※1	D.C.R. (m $\Omega$ ) [Max.] (at 20°C) ※2	Saturation current (A) ※3		Temperature rise current (A) ※4
				at 20°C	at 105°C	
CDEP1711NP-8R $\emptyset$ MC-125	8R0MH	8.0 $\pm$ 20%	5.52(4.6)	16.8	13.2	15.3
CDEP1711NP-1 $\emptyset$ MC-125	100MH	10 $\pm$ 20%	6.12(5.1)	14.4	11.2	14.5
CDEP1711NP-12 $\emptyset$ MC-125	120MH	12 $\pm$ 20%	7.44(6.2)	13.2	10.4	12.0
CDEP1711NP-15 $\emptyset$ MC-125	150MH	15 $\pm$ 20%	10.3(8.6)	12.0	9.2	10.0
CDEP1711NP-18 $\emptyset$ MC-125	180MH	18 $\pm$ 20%	11.3(9.4)	10.8	8.4	9.5

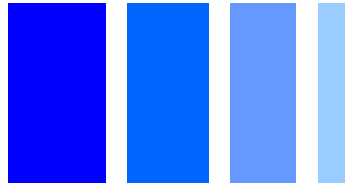
※ 1 Measuring frequency inductance at 100kHz .

※ 2 ( ) are typical value.

※ 2 Saturation current: The DC current at which the inductance decreases to 75% of its nominal value.

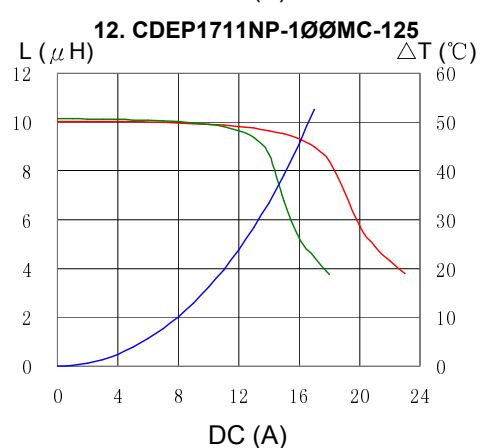
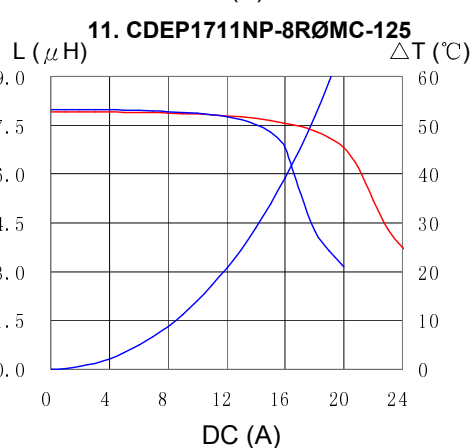
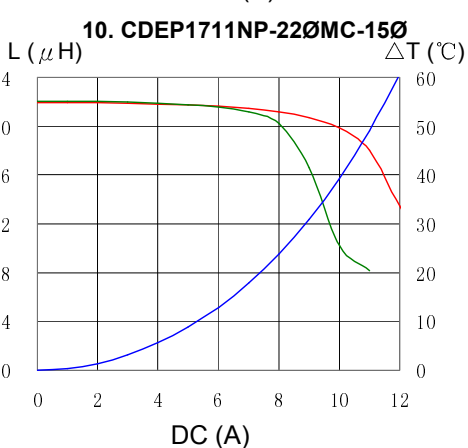
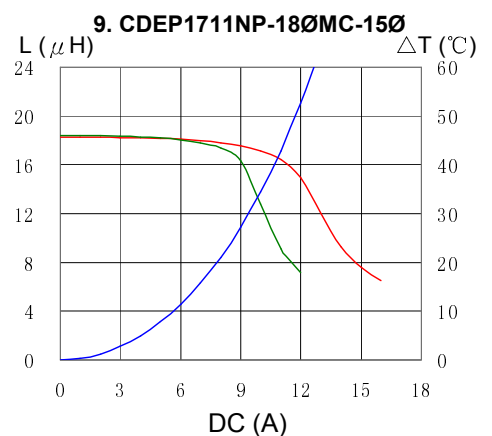
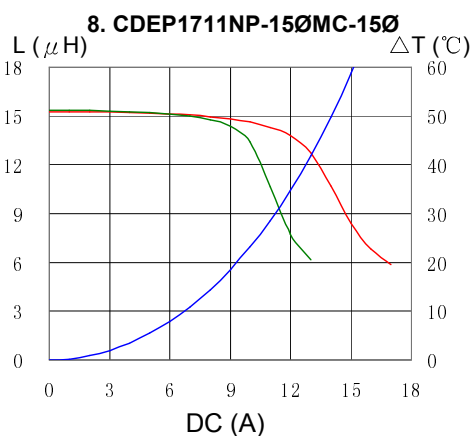
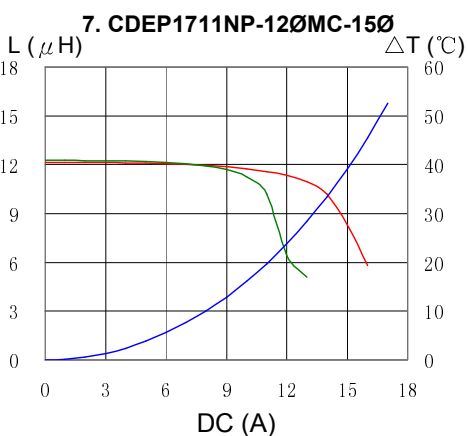
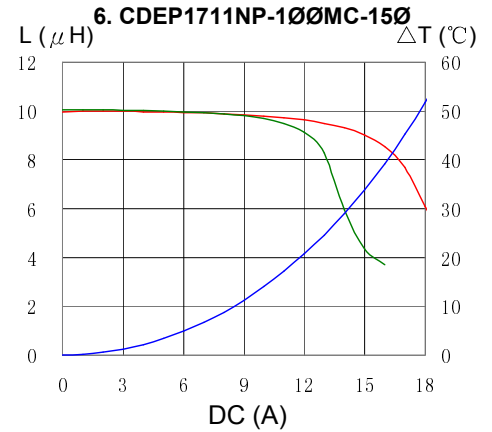
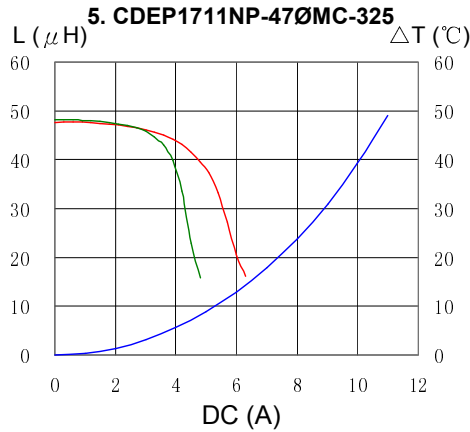
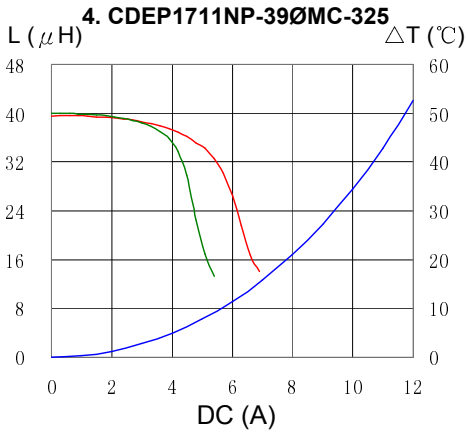
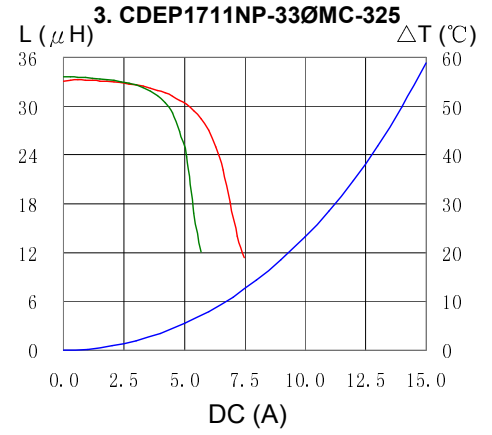
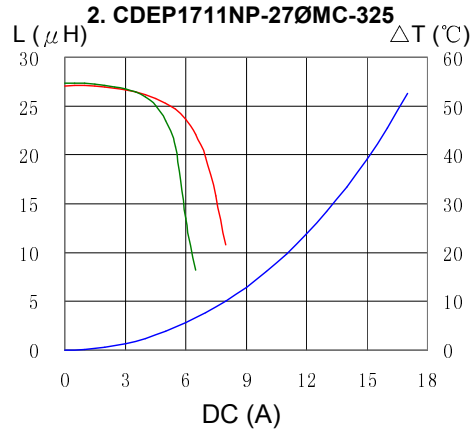
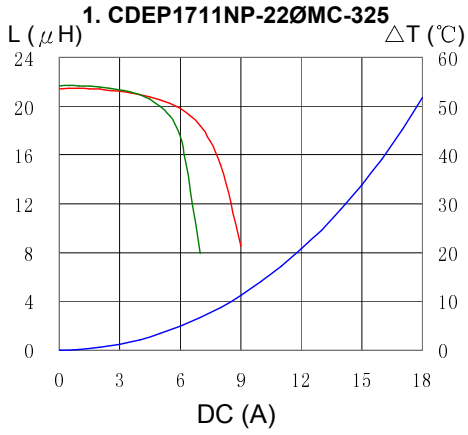
※3 Temperature rise current: The DC current at which the temperature rise is  $\Delta t=40^{\circ}\text{C}$ . ( $T_a=20^{\circ}\text{C}$ )

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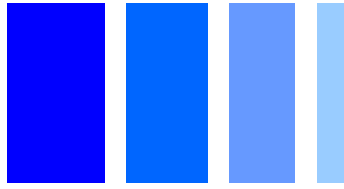


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

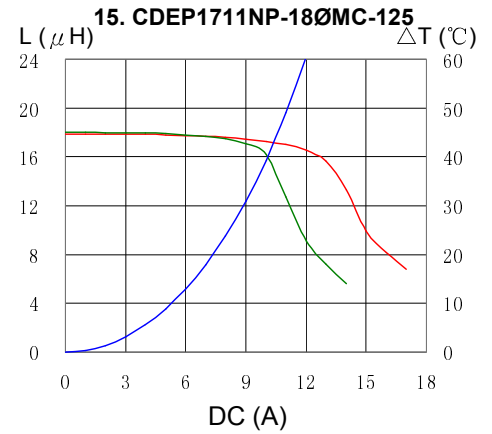
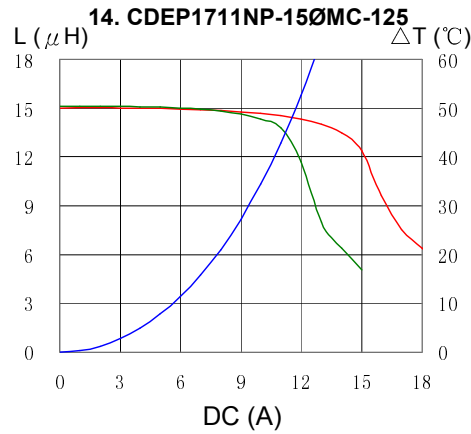
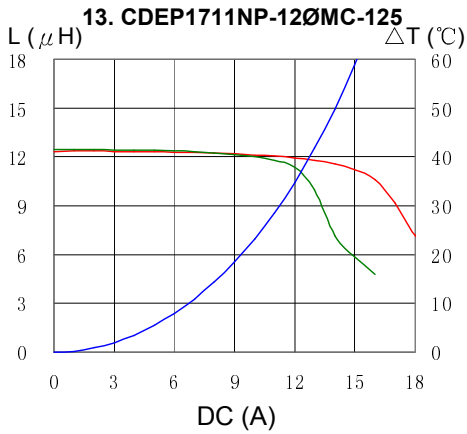


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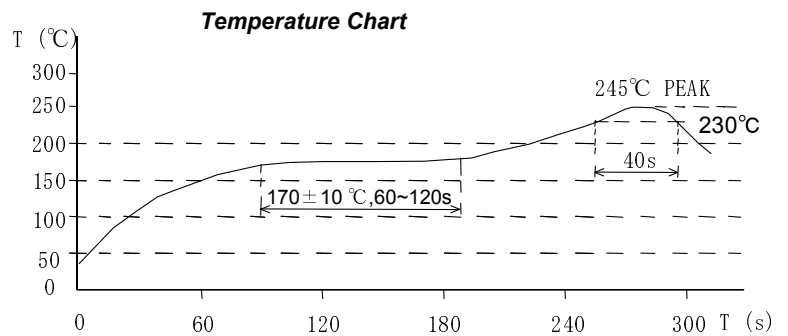
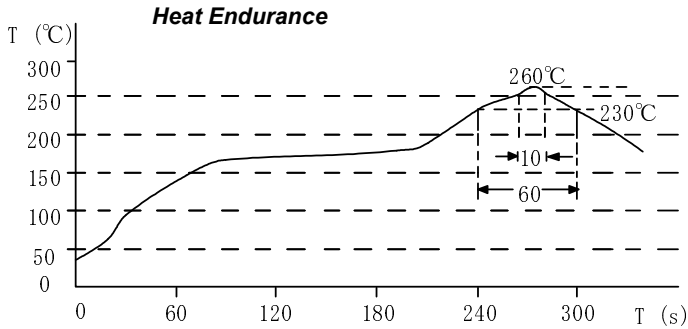


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$



## Solder Reflow Condition



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