

# SMD Power Inductor CDPH45D13F



Halogen  
Free



## Description

- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 4.9 × 4.7 × 1.4mm Max.
- Product weight: 0.1g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Environmental Data

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

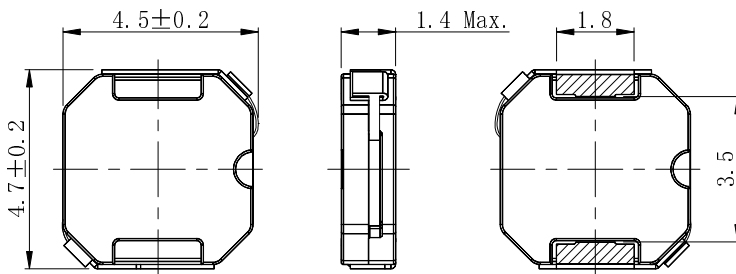
## Packaging

- Carrier tape and reel packaging.
- 7.0" diameter reel
- 1000pcs per reel

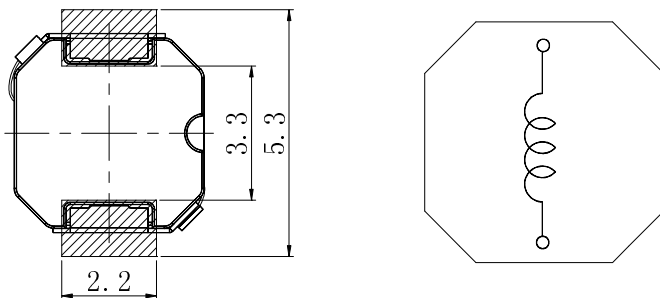
## Applications

- Ideally used in Mobile phone, PDA, HDD etc. as DC-DC Converter inductors

## Dimension - [mm]



## Land pattern and Schematics - [mm]



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## Electrical Characteristics

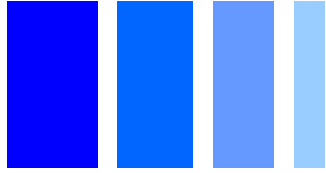
Part No.	Stamp	Inductance ( $\mu$ H) [ within ] ※1	D.C.R. ( $m\Omega$ ) Max. (Typ.)	Saturation Current (A) ※2	Temperature Rise Current (A) ※3
CDPH45D13FHF-1R0NC	A	1.0 $\pm$ 30%	53(42)	3.12(3.90)	2.45(2.79)
CDPH45D13FHF-1R2NC	B	1.2 $\pm$ 30%	64(51)	3.00(3.75)	2.25(2.55)
CDPH45D13FHF-1R8NC	C	1.8 $\pm$ 30%	75(60)	2.24(2.80)	2.00(2.25)
CDPH45D13FHF-2R4MC	D	2.4 $\pm$ 20%	85(68)	2.16(2.70)	1.98(2.25)
CDPH45D13FHF-3R3MC	E	3.3 $\pm$ 20%	96(77)	1.76(2.20)	1.80(2.05)
CDPH45D13FHF-3R9MC	F	3.9 $\pm$ 20%	109(87)	1.68(2.10)	1.58(1.80)
CDPH45D13FHF-4R7MC	G	4.7 $\pm$ 20%	146(117)	1.66(2.08)	1.46(1.67)
CDPH45D13FHF-5R6MC	J	5.6 $\pm$ 20%	160(128)	1.40(1.75)	1.40(1.57)
CDPH45D13FHF-6R8MC	K	6.8 $\pm$ 20%	175(140)	1.28(1.60)	1.35(1.56)
CDPH45D13FHF-100MC	L	10.0 $\pm$ 20%	264(211)	1.04(1.30)	1.10(1.25)
CDPH45D13FHF-120MC	M	12.0 $\pm$ 20%	349(279)	0.97(1.21)	0.95(1.08)
CDPH45D13FHF-150MC	P	15.0 $\pm$ 20%	398(318)	0.86(1.08)	0.88(1.00)
CDPH45D13FHF-180MC	Q	18.0 $\pm$ 20%	580(464)	0.76(0.95)	0.73(0.82)
CDPH45D13FHF-220MC	R	22.0 $\pm$ 20%	644(515)	0.74(0.92)	0.66(0.75)

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 70% of its nominal value.

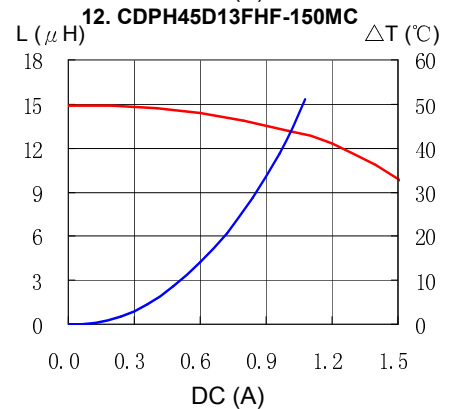
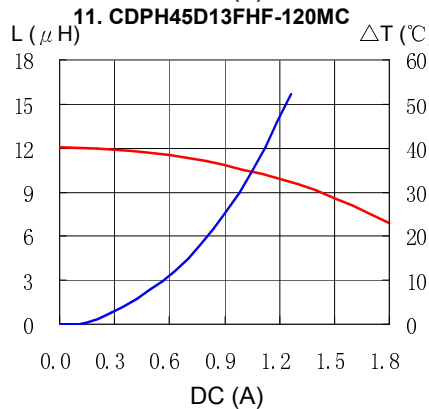
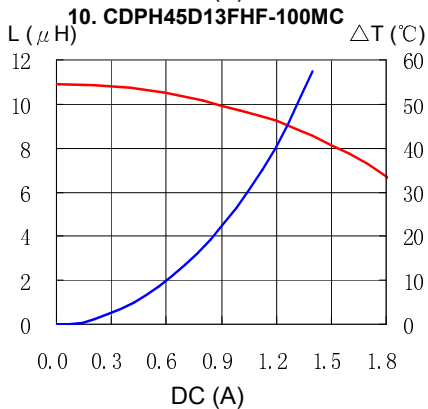
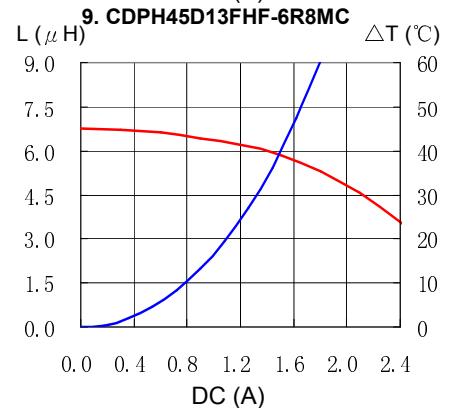
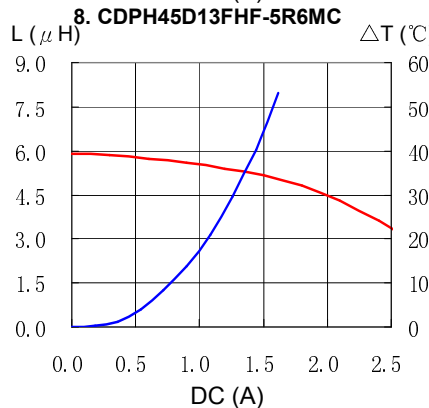
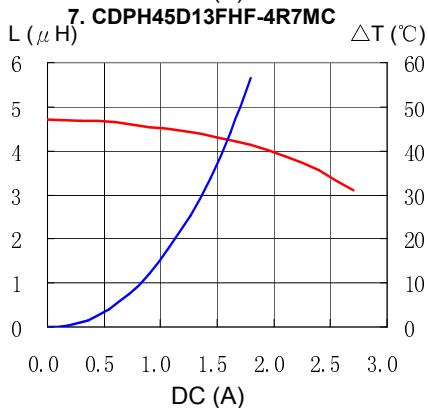
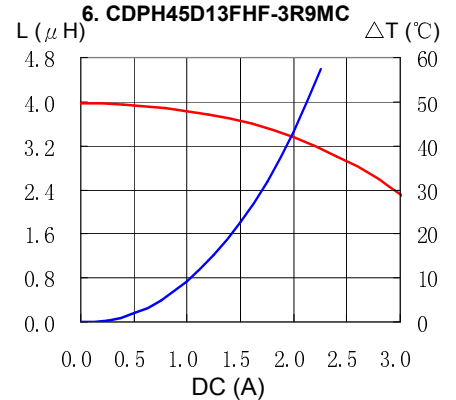
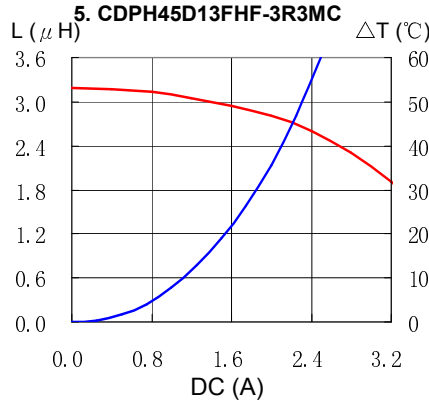
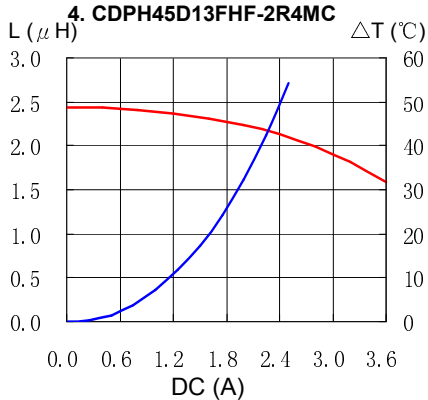
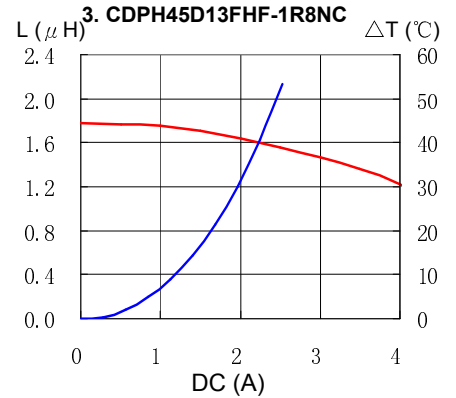
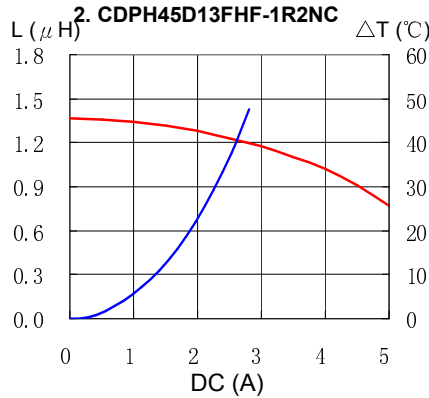
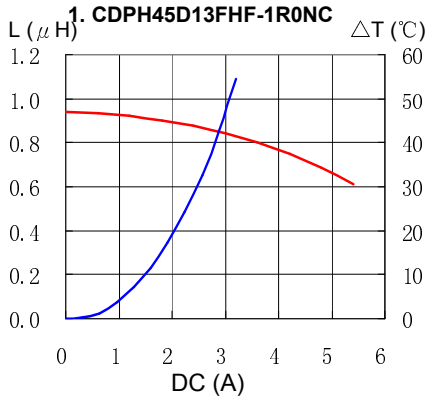
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

— L (20°C)    —  $\Delta T$

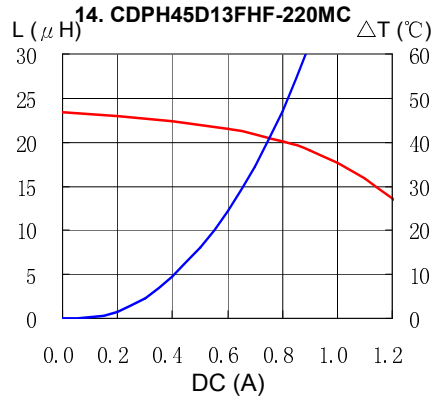
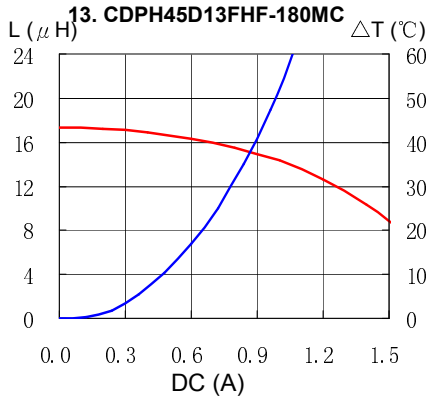


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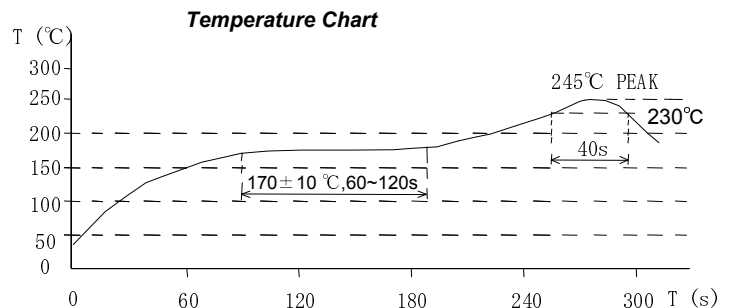
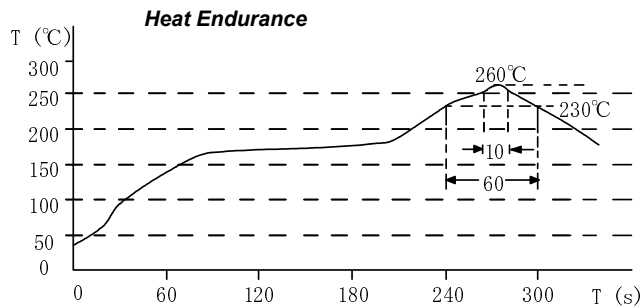


## Saturation Current & Temperature Rise Graph

— L (20°C)    —  $\Delta T$



## Solder Reflow Condition



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