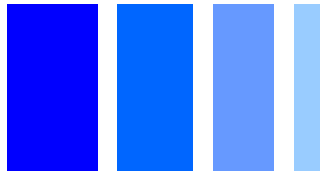


# SMD Power Inductor CDRH12D43/T125



**sumida**

*Under Development*



### Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.5 × 12.5 × 4.5 mm Max.
- Product weight: 3.2g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Qualification to AEC-Q200.

### Environmental Data

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

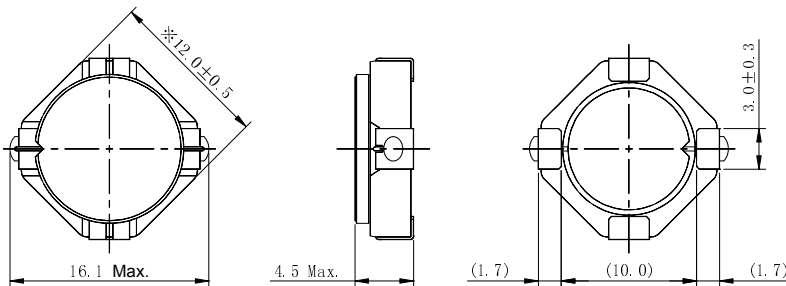
### Packaging

- Carrier tape and reel packaging

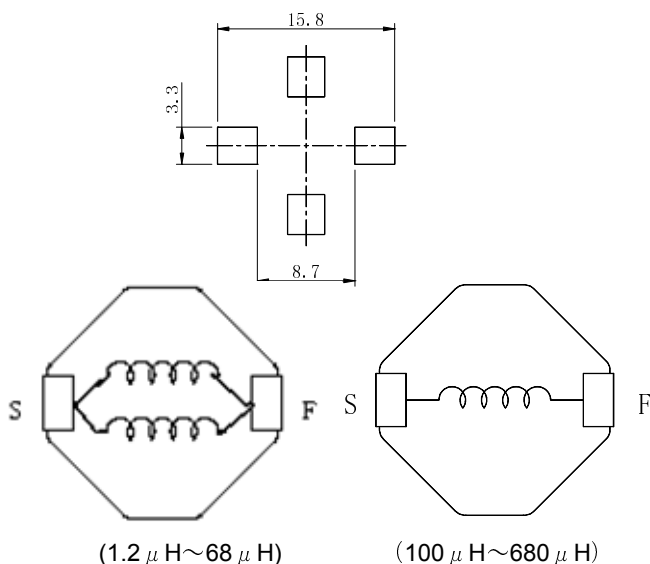
### Applications

- Automotive and other high temperature, high reliability application.

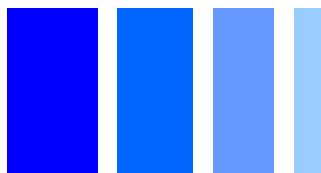
### Dimension - [mm]



### 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.) (at 20°C)	Saturation current (A) ※2		Temperature rise current (A) ※3
				(at20°C)	(at125°C)	
CDRH12D43T125NP-1R2PC	1R2	1.2 $\pm$ 25%	8.0(6.0)	14.50	11.00	7.50
CDRH12D43T125NP-2R0PC	2R0	2.0 $\pm$ 25%	12.0(9.0)	11.70	8.90	6.00
CDRH12D43T125NP-3R0PC	3R0	3.0 $\pm$ 25%	14.0(10.5)	9.70	7.20	5.50
CDRH12D43T125NP-4R2PC	4R2	4.2 $\pm$ 25%	17.0(12.8)	8.20	6.10	5.00
CDRH12D43T125NP-5R6PC	5R6	5.6 $\pm$ 25%	20.0(15.0)	7.30	5.50	4.60
CDRH12D43T125NP-6R8PC	6R8	6.8 $\pm$ 25%	23.0(17.3)	6.20	4.70	4.40
CDRH12D43T125NP-100MC	100	10 $\pm$ 20%	30.0(25.0)	5.20	3.90	3.50
CDRH12D43T125NP-150MC	150	15 $\pm$ 20%	36.0(30.0)	4.10	3.10	2.80
CDRH12D43T125NP-220MC	220	22 $\pm$ 20%	55.0(46.0)	3.50	2.60	2.30
CDRH12D43T125NP-330MC	330	33 $\pm$ 20%	94.5(78.5)	2.90	2.20	1.85
CDRH12D43T125NP-470MC	470	47 $\pm$ 20%	125(102)	2.40	1.80	1.60
CDRH12D43T125NP-680MC	680	68 $\pm$ 20%	195(160)	2.00	1.50	1.30
CDRH12D43T125NP-101MC	101	100 $\pm$ 20%	292(243)	1.72	1.28	1.00
CDRH12D43T125NP-151MC	151	150 $\pm$ 20%	440(360)	1.37	1.00	0.83
CDRH12D43T125NP-221MC	221	220 $\pm$ 20%	650(540)	1.12	0.83	0.70
CDRH12D43T125NP-331MC	331	330 $\pm$ 20%	1050(875)	0.92	0.68	0.52
CDRH12D43T125NP-471MC	471	470 $\pm$ 20%	1500(1296)	0.79	0.59	0.44
CDRH12D43T125NP-681MC	681	680 $\pm$ 20%	2100(1822)	0.65	0.49	0.36

※1. Inductance measuring condition :at 100kHz

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

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

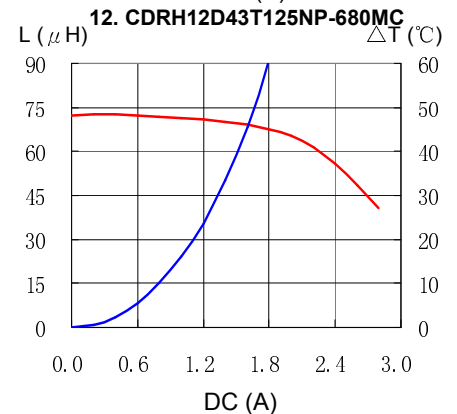
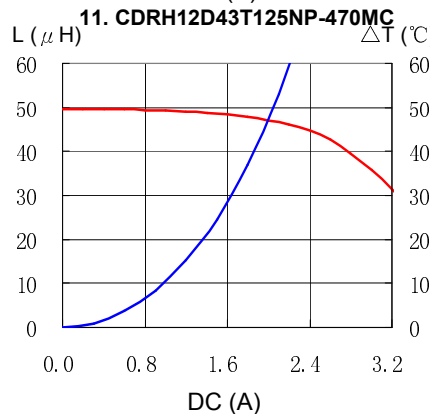
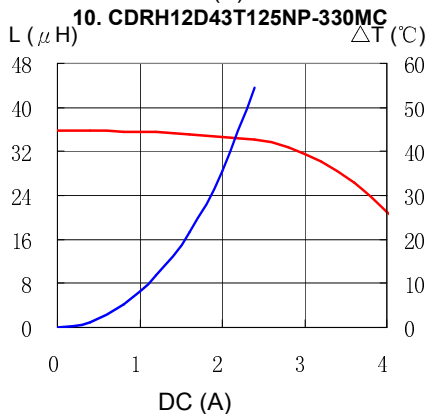
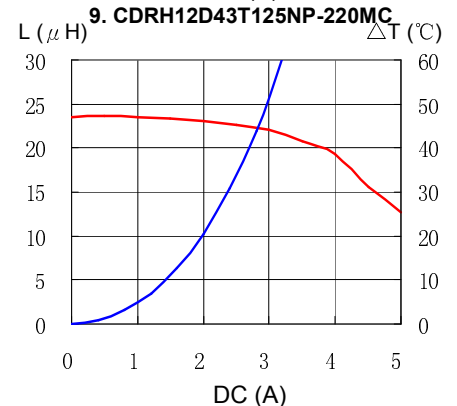
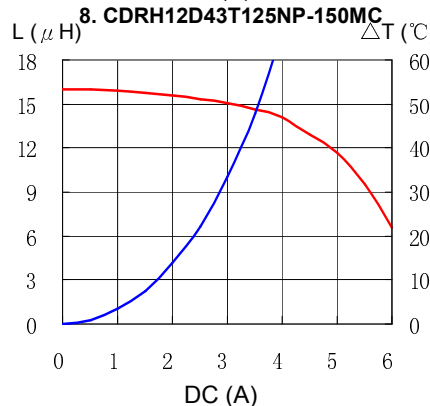
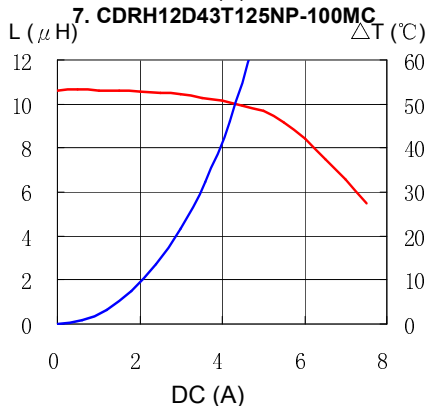
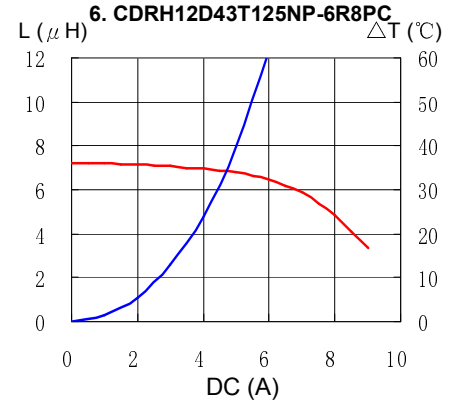
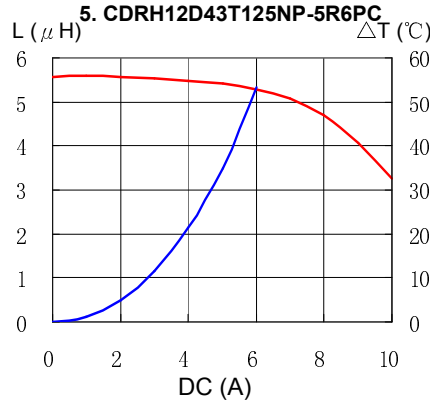
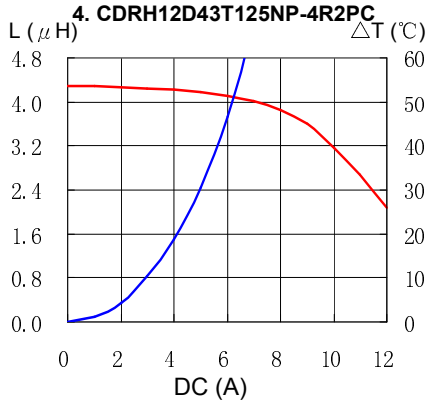
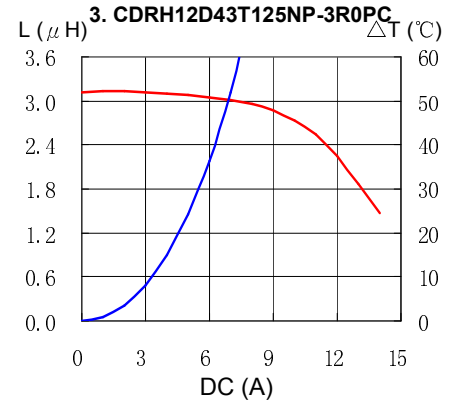
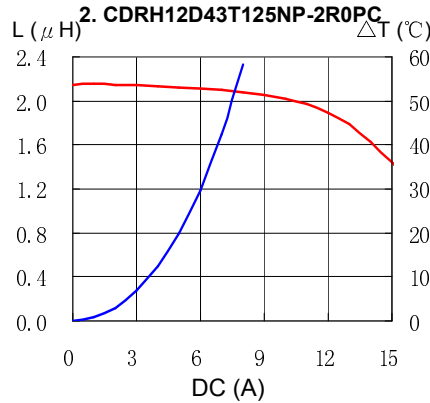
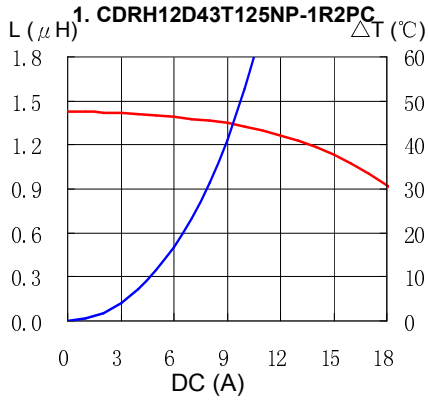
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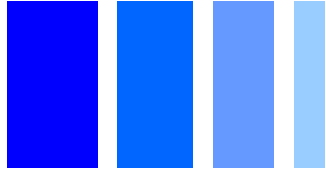
*Under Development*

## Saturation Current & Temperature Rise Graph

— L (20°C)    —  $\Delta T$



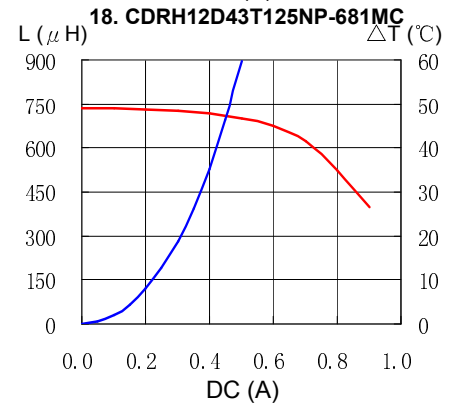
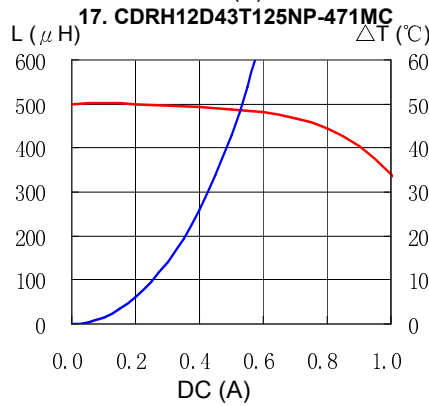
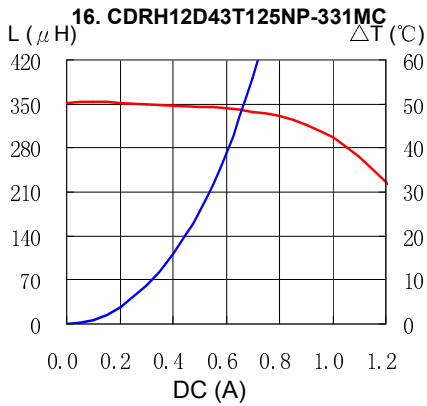
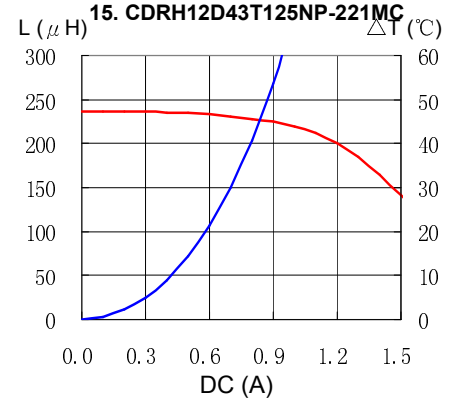
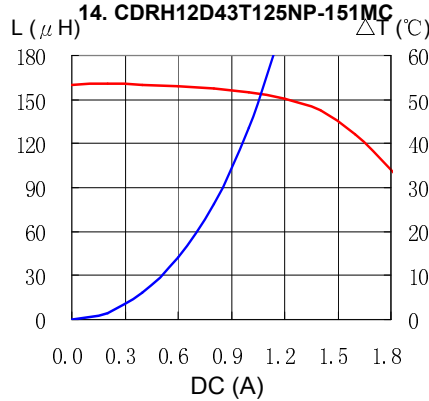
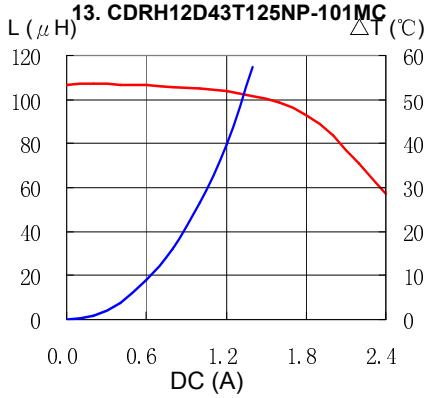
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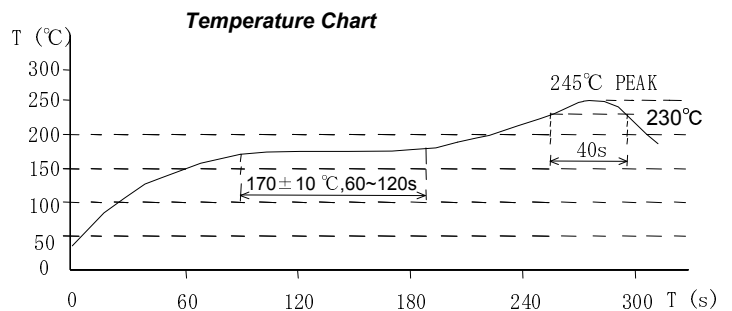
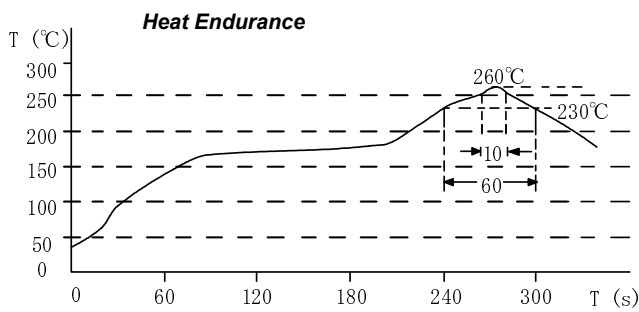
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## Saturation Current & Temperature Rise Graph

— L (20°C)    —  $\Delta T$



## Solder Reflow Condition



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