



**THE DATASHEET OF  
CDRH125NP-270MC**



# SMD Power Inductor CDRH125



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.3 × 12.3 × 6.0 mm Max.
- Product weight: 2.9g(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.

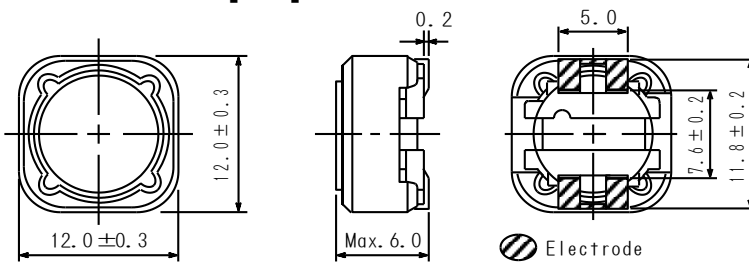
## Packaging

- Carrier tape and reel packaging
- 13" diameter reel
- 500pcs per reel

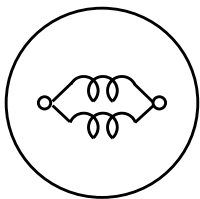
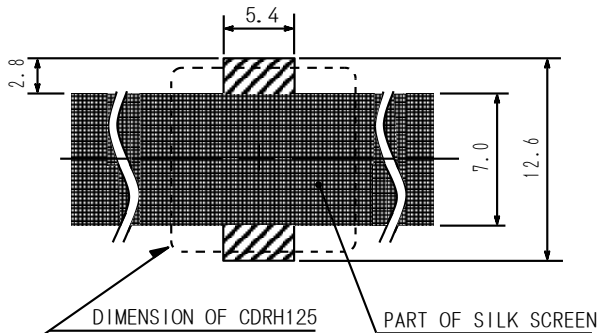
## Applications

- Ideally used in Notebook PC, LCD TV, DVD, Game machine, STB, Projector etc. as DC-DC converter inductors.

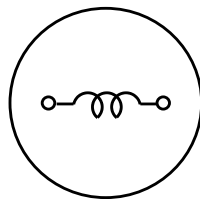
## Dimension - [mm]



## Land pattern and Schematics - [mm]



1.3µH ~ 47µH



56µH ~ 1mH



## Electrical Characteristics

PART NO.	STAMP	INDUCTANCE [WITHIN] ※1	D.C.R. ( $\Omega$ ) (at 20°C) MAX.(TYP.)	SATURATION CURRENT (A)※2 MAX.(TYP.)	TEMPERATURE RISE CURRENT (A)※3
CDRH125NP-100MC	100	10 $\mu$ H $\pm$ 20%	25m(19m)	5.48(6.85)	5.60
CDRH125NP-120MC	120	12 $\mu$ H $\pm$ 20%	27m(21m)	4.88(6.10)	5.20
CDRH125NP-150MC	150	15 $\mu$ H $\pm$ 20%	30m(23m)	4.48(5.60)	5.00
CDRH125NP-180MC	180	18 $\mu$ H $\pm$ 20%	34m(26m)	4.24(5.30)	4.50
CDRH125NP-220MC	220	22 $\mu$ H $\pm$ 20%	36m(28m)	3.84(4.80)	4.25
CDRH125NP-270MC	270	27 $\mu$ H $\pm$ 20%	51m(39m)	3.40(4.25)	3.50
CDRH125NP-330MC	330	33 $\mu$ H $\pm$ 20%	57m(44m)	3.08(3.85)	2.95
CDRH125NP-390MC	390	39 $\mu$ H $\pm$ 20%	68m(52m)	2.80(3.50)	2.90
CDRH125NP-470MC	470	47 $\mu$ H $\pm$ 20%	75m(58m)	2.44(3.05)	2.80
CDRH125NP-560MC	560	56 $\mu$ H $\pm$ 20%	0.11(84m)	2.34(2.92)	2.70
CDRH125NP-680MC	680	68 $\mu$ H $\pm$ 20%	0.12(93m)	2.16(2.70)	2.55
CDRH125NP-820MC	820	82 $\mu$ H $\pm$ 20%	0.14(0.11)	1.80(2.25)	2.50
CDRH125NP-101MC	101	100 $\mu$ H $\pm$ 20%	0.16(0.12)	1.72(2.15)	2.28
CDRH125NP-121MC	121	120 $\mu$ H $\pm$ 20%	0.17(0.13)	1.49(1.86)	2.05
CDRH125NP-151MC	151	150 $\mu$ H $\pm$ 20%	0.23(0.18)	1.36(1.70)	1.80
CDRH125NP-181MC	181	180 $\mu$ H $\pm$ 20%	0.29(0.22)	1.30(1.62)	1.75
CDRH125NP-221MC	221	220 $\mu$ H $\pm$ 20%	0.40(0.31)	1.16(1.45)	1.56
CDRH125NP-271MC	271	270 $\mu$ H $\pm$ 20%	0.46(0.35)	1.06(1.32)	1.38
CDRH125NP-331MC	331	330 $\mu$ H $\pm$ 20%	0.51(0.39)	0.96(1.20)	1.25
CDRH125NP-391MC	391	390 $\mu$ H $\pm$ 20%	0.69(0.53)	0.86(1.08)	1.20
CDRH125NP-471MC	471	470 $\mu$ H $\pm$ 20%	0.77(0.59)	0.76(0.95)	1.05
CDRH125NP-561MC	561	560 $\mu$ H $\pm$ 20%	0.86(0.66)	0.70(0.88)	0.90
CDRH125NP-681MC	681	680 $\mu$ H $\pm$ 20%	1.20(0.92)	0.66(0.82)	0.80
CDRH125NP-821MC	821	820 $\mu$ H $\pm$ 20%	1.34(1.03)	0.59(0.74)	0.72
CDRH125NP-102MC	102	1.0mH $\pm$ 20%	1.53(1.18)	0.52(0.65)	0.66

※1 Measured frequency  $L$  at 1 kHz

※2 Saturation current: This indicates the value of D.C. current when the inductance becomes 25% lower than it's initial value. (Ta=20°C).

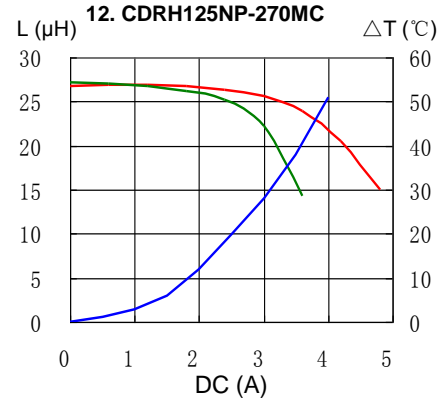
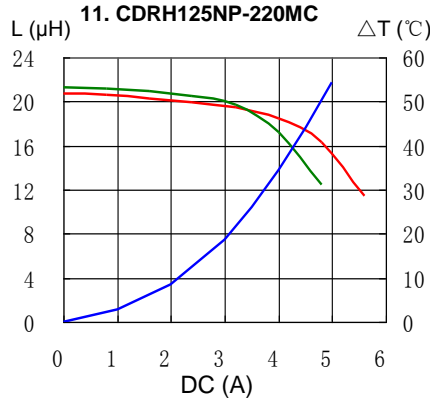
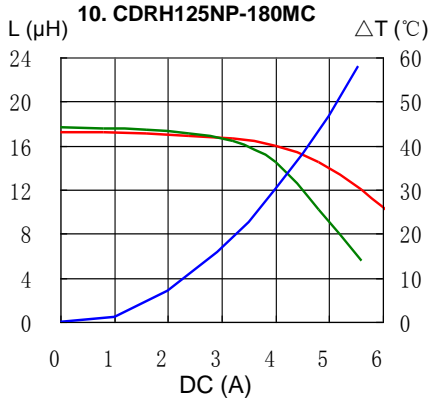
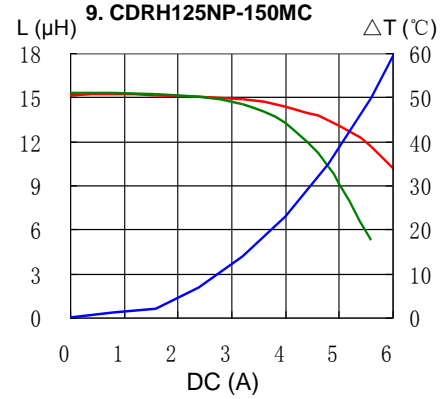
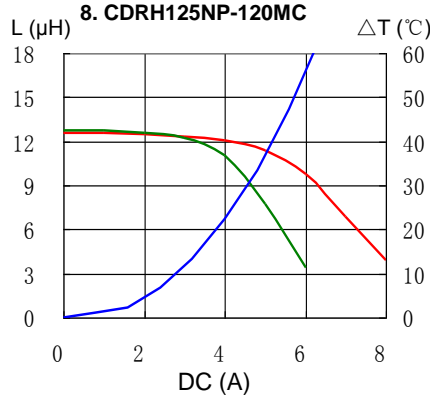
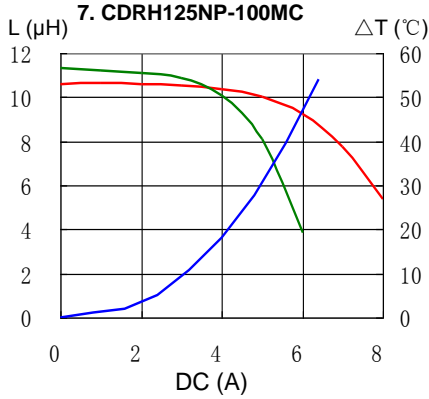
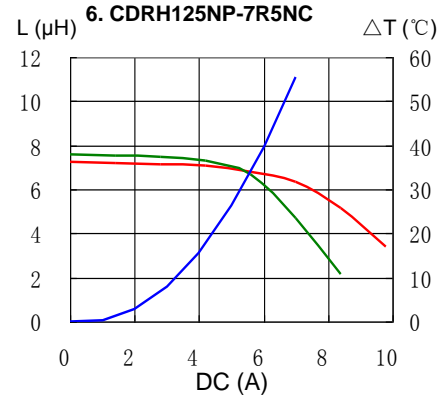
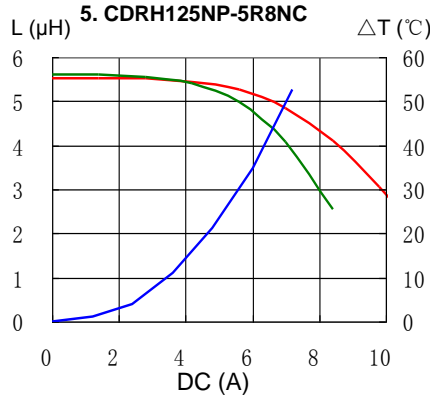
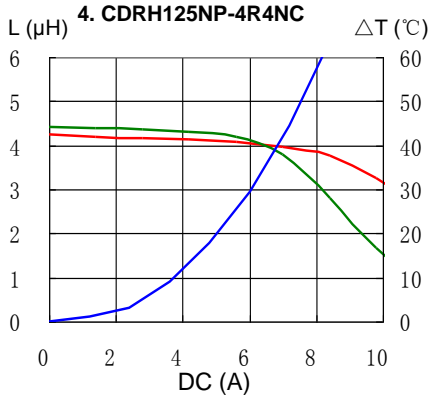
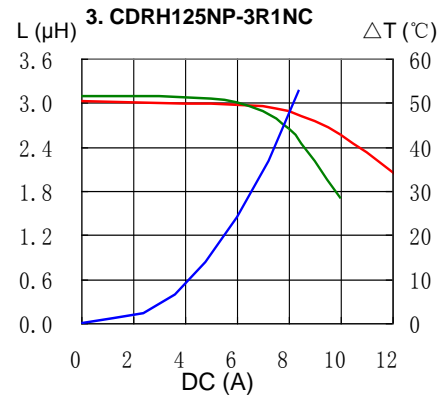
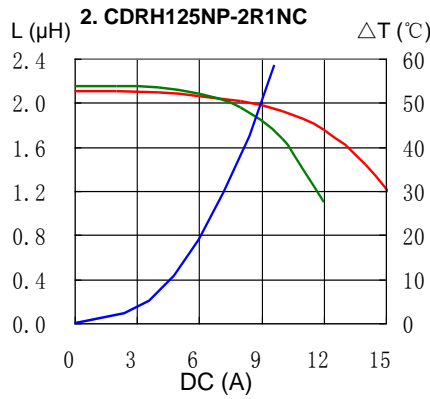
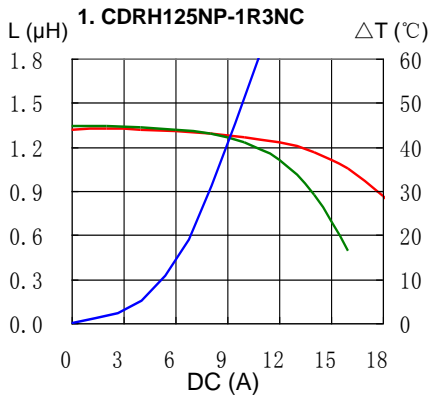
※3 Temperature rise current :The actual value of D.C. current when the temperature of coil becomes  $\Delta T=40^\circ C$  (Ta=20°C).

# SMD Power Inductor CDRH125



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

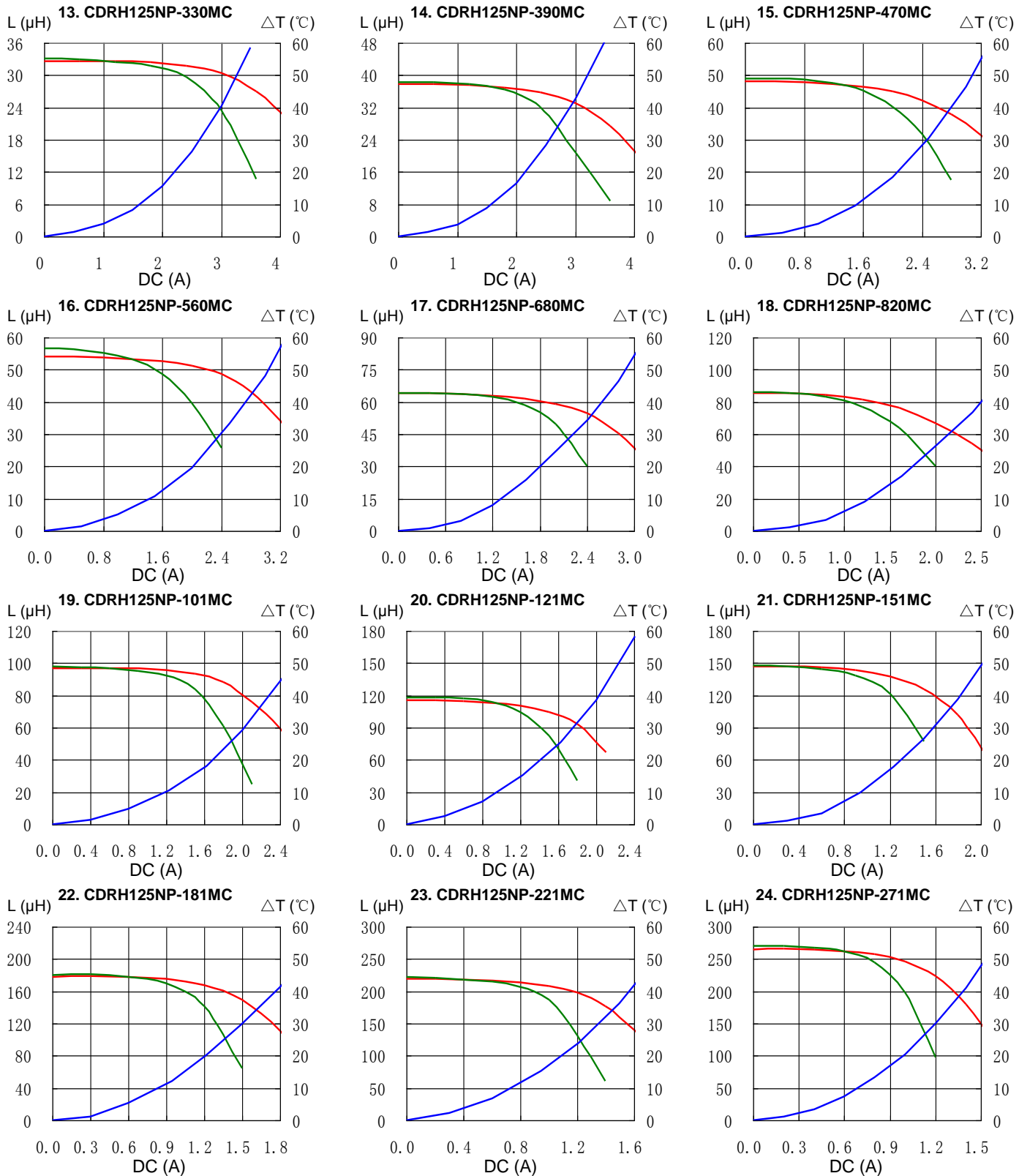


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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

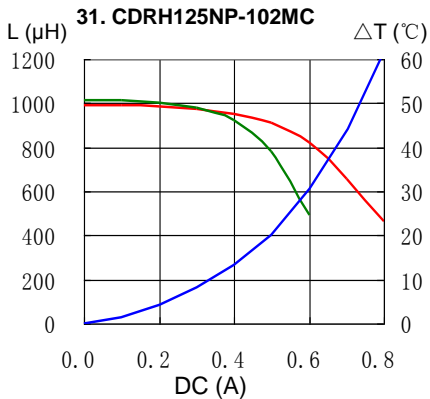
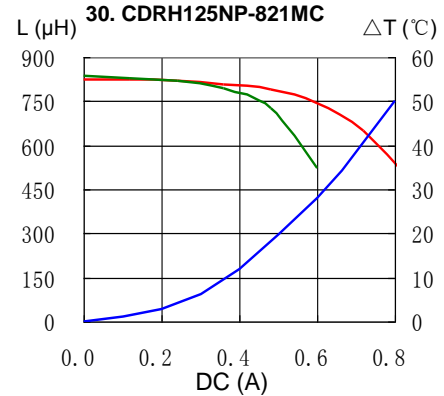
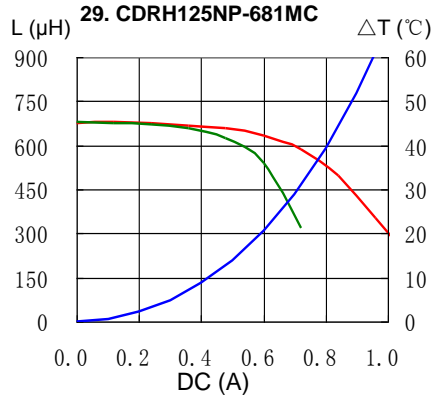
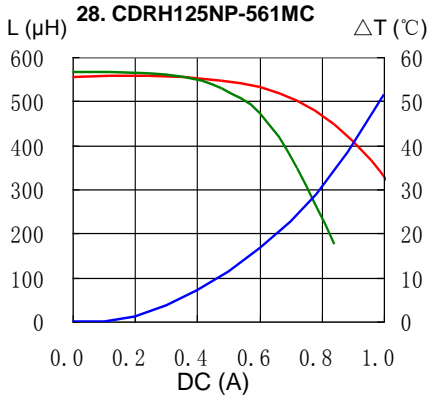
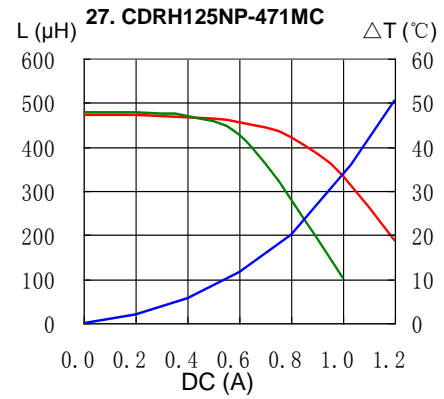
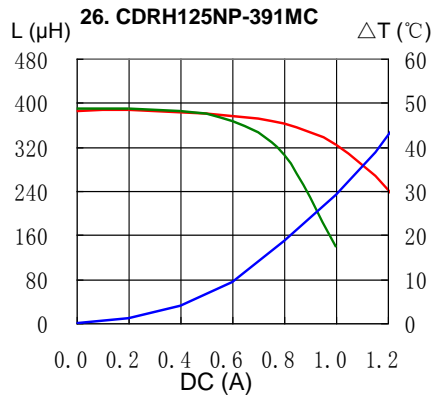
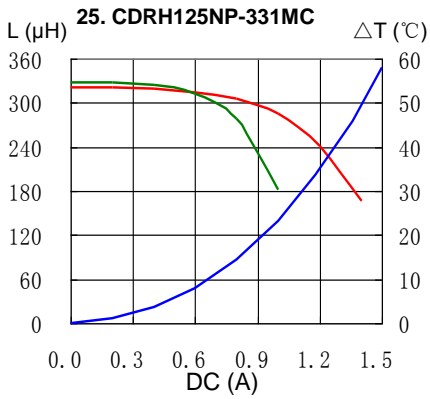


# SMD Power Inductor CDRH125



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$



# SMD Power Inductor CDRH125



## Solder Reflow Condition

Heat Endurance



Temperature Chart



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