

# SMD Power Inductor CDRH125/L125



Halogen Free



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.3 × 12.3 × 6.0 mm Max.
- Product weight: 3.0g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.
- Qualified 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.

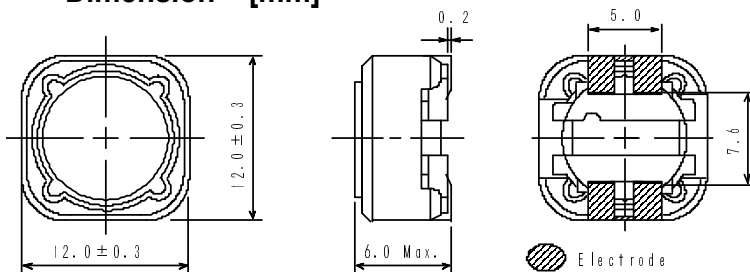
## Packaging

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

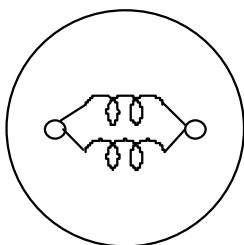
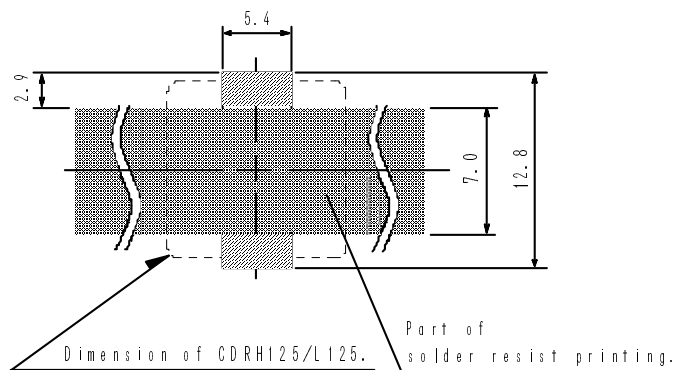
## Applications

- Automotive.

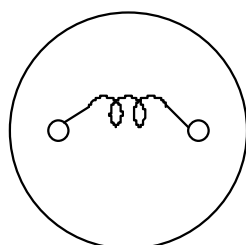
## Dimension - [mm]



## Land pattern and Schematics - [mm]



(1.2 μH ~ 47 μH)



(68 μH ~ 1.0mH)

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## CDRH125/L125



### Electrical Characteristics

Part Name	Stamp	Inductance ( $\mu$ H) ※1	D.C.R.( $\Omega$ ) Max.(Typ.) (at 20°C)	Saturation Current (A) ※2		Temperature Rise Current (A) ※3
				at 20°C	at 125°C	
CDRH125L125NP-1R2NC	1R2	1.2±30%	8.5m(6.8m)	14.20	11.60	9.00
CDRH125L125NP-1R8NC	1R8	1.8±30%	10.6m(8.5m)	12.60	10.10	8.00
CDRH125L125NP-2R7NC	2R7	2.7±30%	12.8m(10.2m)	10.20	8.20	7.40
CDRH125L125NP-3R9NC	3R9	3.9±30%	15.0m(12.0m)	8.20	6.70	6.80
CDRH125L125NP-5R1NC	5R1	5.1±30%	17.5m(14.0m)	7.20	5.90	6.50
CDRH125L125NP-6R8NC	6R8	6.8±30%	20.0m(16.0m)	6.20	4.90	5.90
CDRH125L125NP-100MC	100	10±20%	25.0m(20.0m)	5.20	4.10	5.30
CDRH125L125NP-150MC	150	15±20%	33.8m(27.0m)	4.40	3.50	4.50
CDRH125L125NP-220MC	220	22±20%	39.5m(31.5m)	3.50	2.81	3.70
CDRH125L125NP-330MC	330	33±20%	59.0m(47.0m)	2.93	2.38	3.00
CDRH125L125NP-470MC	470	47±20%	93.0m(74.0m)	2.44	2.00	2.42
CDRH125L125NP-680MC	680	68±20%	131m(105m)	2.02	1.65	2.05
CDRH125L125NP-101MC	101	100±20%	166m(133m)	1.70	1.37	1.82
CDRH125L125NP-151MC	151	150±20%	271m(217m)	1.36	1.11	1.40
CDRH125L125NP-221MC	221	220±20%	394m(315m)	1.12	0.90	1.15
CDRH125L125NP-331MC	331	330±20%	674m(539m)	0.90	0.73	0.90
CDRH125L125NP-471MC	471	470±20%	858m(686m)	0.75	0.61	0.81
CDRH125L125NP-681MC	681	680±20%	1.22(1.02)	0.62	0.50	0.65
CDRH125L125NP-102MC	102	1000±20%	1.90(1.58)	0.52	0.42	0.50

※1. Measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 65% of it's nominal value.

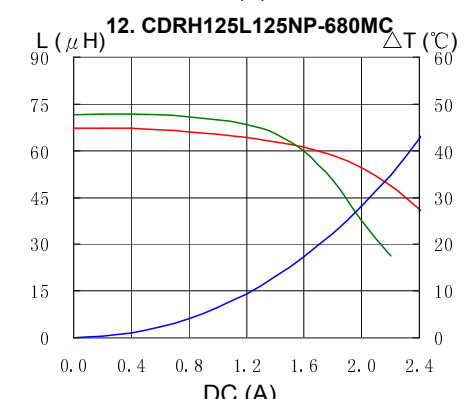
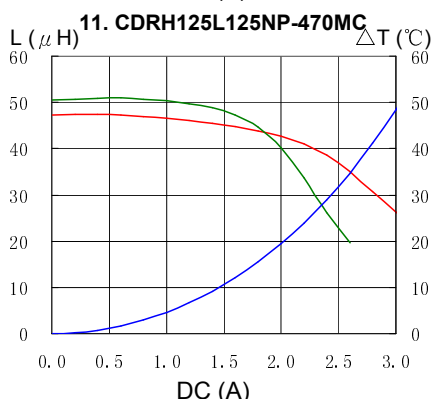
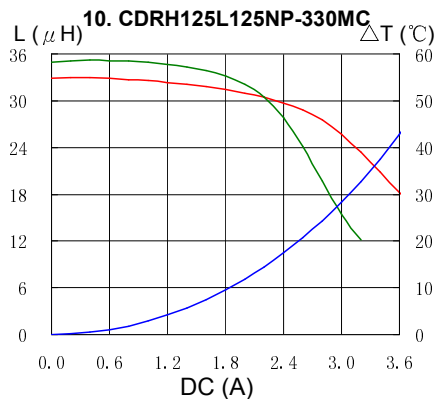
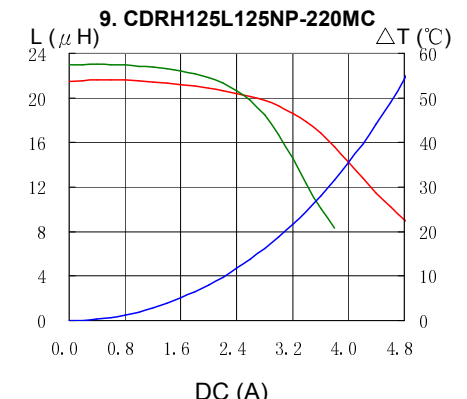
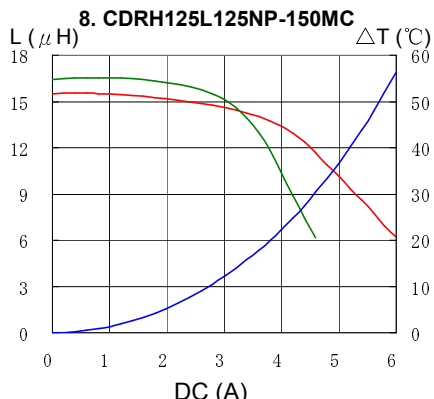
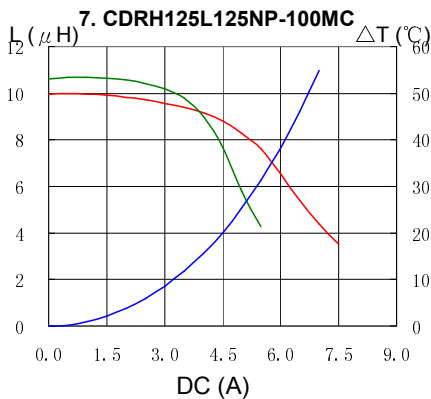
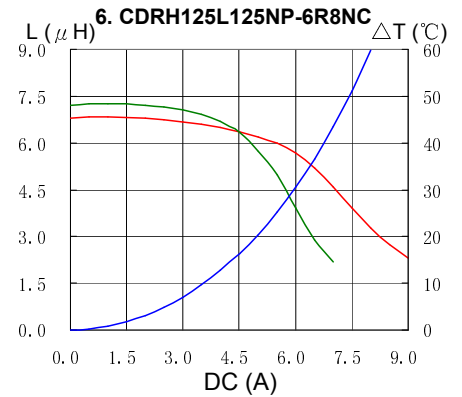
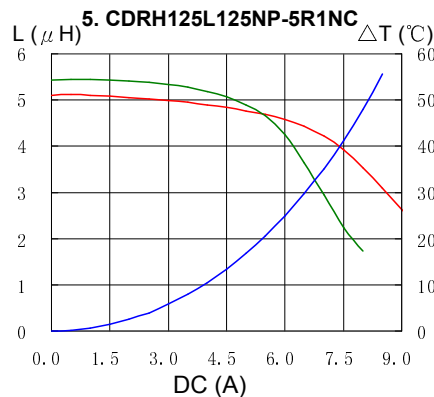
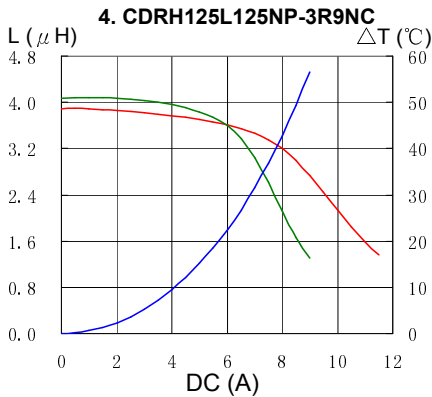
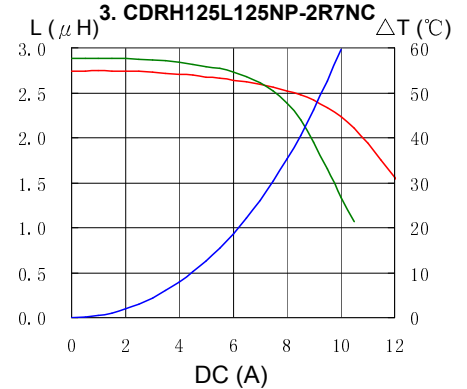
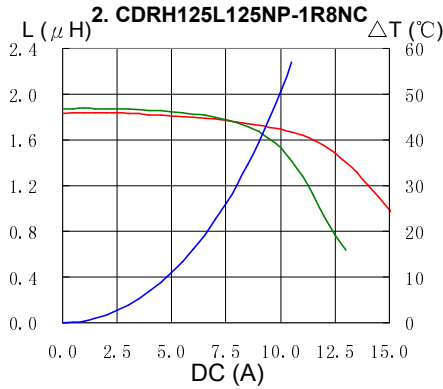
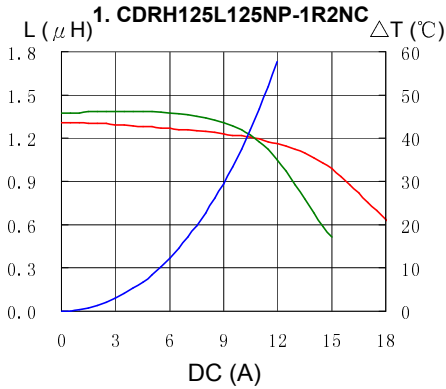
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

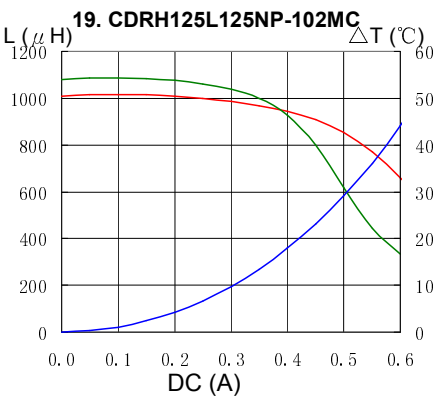
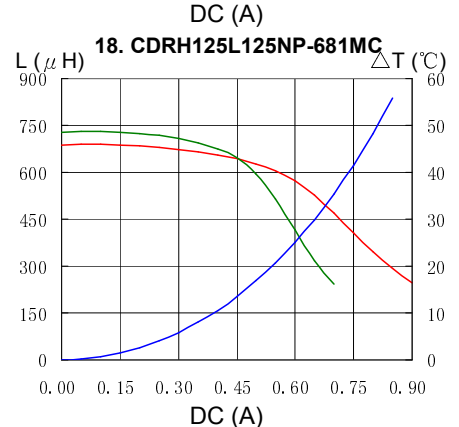
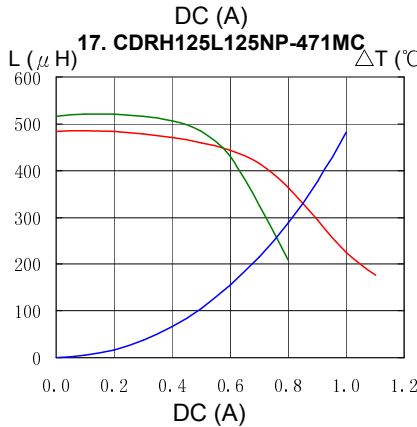
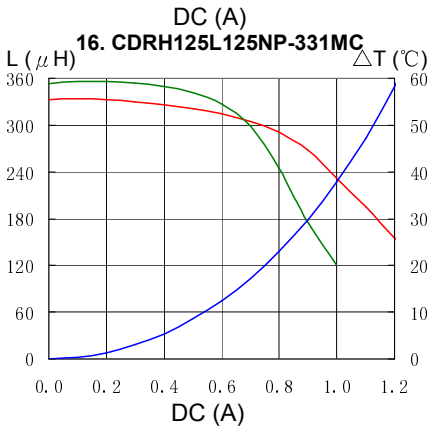
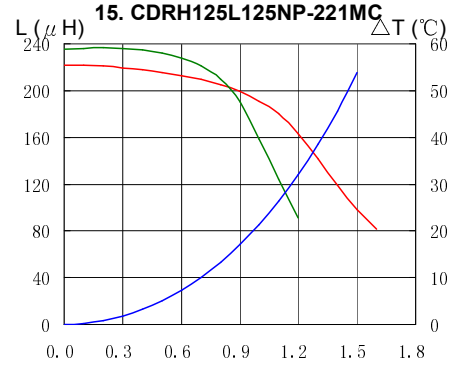
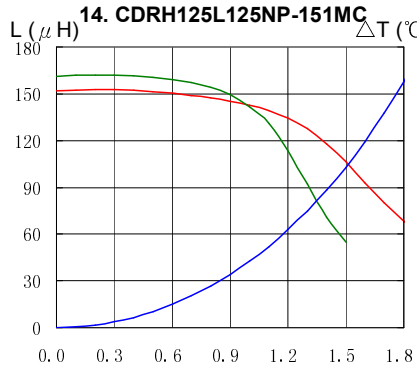
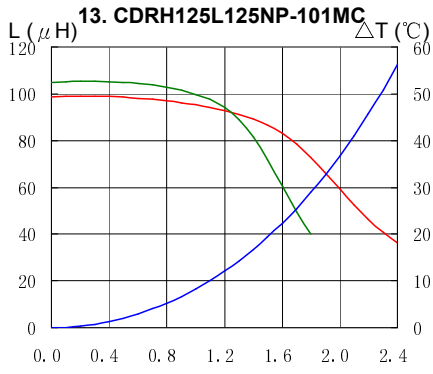
— L (20°C) — L (125°C) —  $\Delta T$



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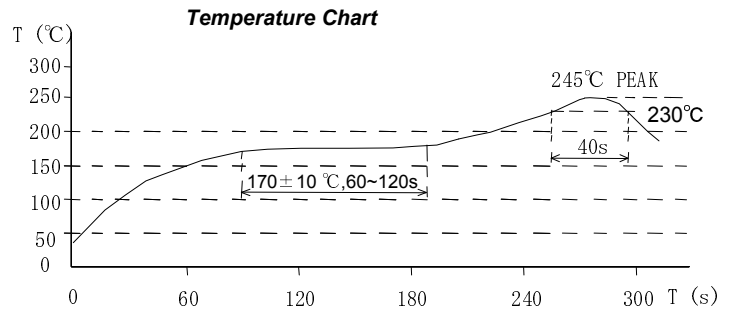
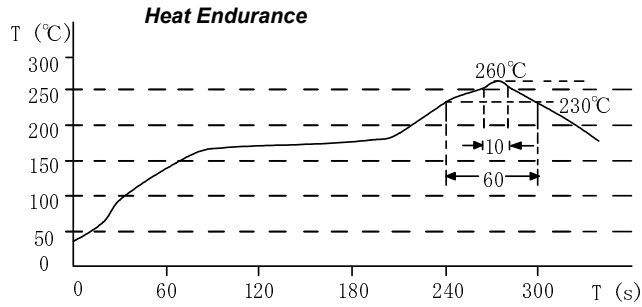
— L (20°C) — L (125°C) —  $\Delta T$



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## Solder Reflow Condition



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### Hong Kong

Tel.+852-2880-6781  
FAX.+852-2565-9600  
[sales@hk.sumida.com](mailto:sales@hk.sumida.com)

### Saitama(Japan)

Tel.+81-48-691-7300  
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### Chicago

Tel.+1-847-545-6700  
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[shanghai.sales@cn.sumida.com](mailto:shanghai.sales@cn.sumida.com)

### Seoul

Tel.+82-2-6237-0777  
FAX.+82-2-6237-0778  
[sales@kr.sumida.com](mailto:sales@kr.sumida.com)

### Oberzell

Tel.+49-8591-937-0  
FAX. +49-8591-937-103  
[contact@eu.sumida.com](mailto:contact@eu.sumida.com)

### Shenzhen

Tel.+86-755-8291-0228  
FAX.+86-755-8291-0338  
[shenzhen.sales@cn.sumida.com](mailto:shenzhen.sales@cn.sumida.com)

### Singapore

Tel.+65-6296-3388  
FAX.+65-6841-4426  
[sales@sg.sumida.com](mailto:sales@sg.sumida.com)

### Neumarkt

Tel.+49-9181-4509-110  
FAX. +49-9181-4509-310  
[infocomp@eu.sumida.com](mailto:infocomp@eu.sumida.com)

### Taipei

Tel.+886-2-8751-2737  
FAX.+886-2-8751-2738  
[sales@tw.sumida.com](mailto:sales@tw.sumida.com)

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