



**THE DATASHEET OF  
CDRH127L125NP-221MC**



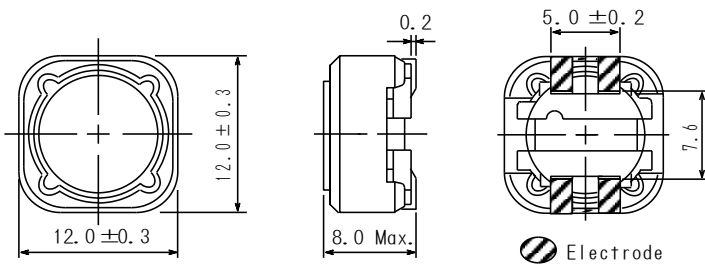
# SMD Power Inductor CDRH127/L125



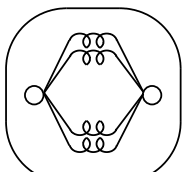
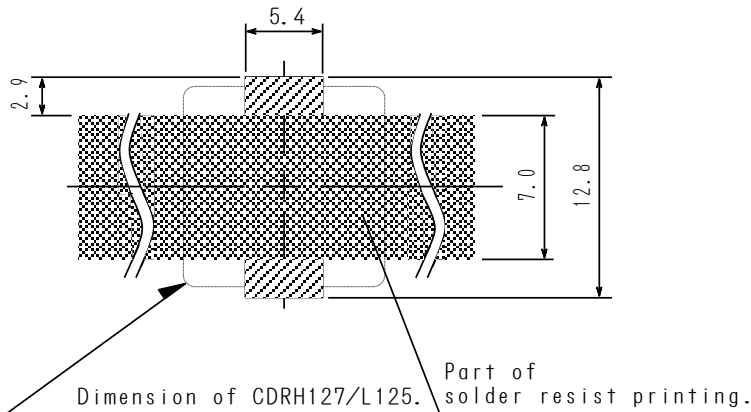
## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.3 × 12.3 × 8.0 mm Max.
- Product weight: 4.1g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Qualified to AEC-Q200.

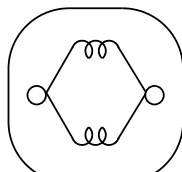
## Dimension - [mm]



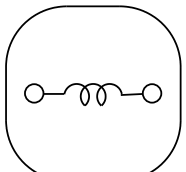
## Land pattern and Schematics - [mm]



2.7  $\mu$ H ~ 47  $\mu$ H



68  $\mu$ H ~ 150  $\mu$ H



220  $\mu$ H ~ 1.0mH

## 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.



### Electrical Characteristics

Part Name	Stamp	Inductance ( $\mu$ H) ※1	D.C.R.(m $\Omega$ ) Max.(Typ.) (at 20°C)	Saturation Current (A) ※2		Temperature Rise Current (A) ※3
				at 20°C	at 125°C	
CDRH127L125NP-2R7NC	2R7	2.7 $\pm$ 30%	9.7(7.5)	15.50	13.80	9.00
CDRH127L125NP-3R6NC	3R6	3.6 $\pm$ 30%	11.0(8.5)	13.80	10.80	8.30
CDRH127L125NP-4R7NC	4R7	4.7 $\pm$ 30%	13.0(10.0)	12.30	9.85	7.80
CDRH127L125NP-6R2NC	6R2	6.2 $\pm$ 30%	14.6(11.3)	10.20	8.20	7.50
CDRH127L125NP-7R5NC	7R5	7.5 $\pm$ 30%	16.3(12.6)	9.20	7.37	7.00
CDRH127L125NP-100MC	100	10 $\pm$ 20%	23.6(18.2)	8.40	6.60	6.00
CDRH127L125NP-150MC	150	15 $\pm$ 20%	26.2(20.2)	6.40	5.30	5.60
CDRH127L125NP-220MC	220	22 $\pm$ 20%	36.7(28.3)	5.60	4.40	4.60
CDRH127L125NP-330MC	330	33 $\pm$ 20%	53.0(40.8)	4.30	3.40	3.80
CDRH127L125NP-470MC	470	47 $\pm$ 20%	83.2(64.0)	3.90	3.15	3.10
CDRH127L125NP-680MC	680	68 $\pm$ 20%	111.5(85.8)	3.10	2.50	2.60
CDRH127L125NP-101MC	101	100 $\pm$ 20%	171.2(131.7)	2.60	2.10	2.00
CDRH127L125NP-151MC	151	150 $\pm$ 20%	236(182)	2.10	1.70	1.80
CDRH127L125NP-221MC	221	220 $\pm$ 20%	347(267)	1.75	1.50	1.40
CDRH127L125NP-331MC	331	330 $\pm$ 20%	478(382)	1.42	1.12	1.18
CDRH127L125NP-471MC	471	470 $\pm$ 20%	731(585)	1.20	0.96	0.95
CDRH127L125NP-681MC	681	680 $\pm$ 20%	1102(882)	0.98	0.79	0.75
CDRH127L125NP-102MC	102	1000 $\pm$ 20%	1495(1196)	0.83	0.66	0.64

※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.

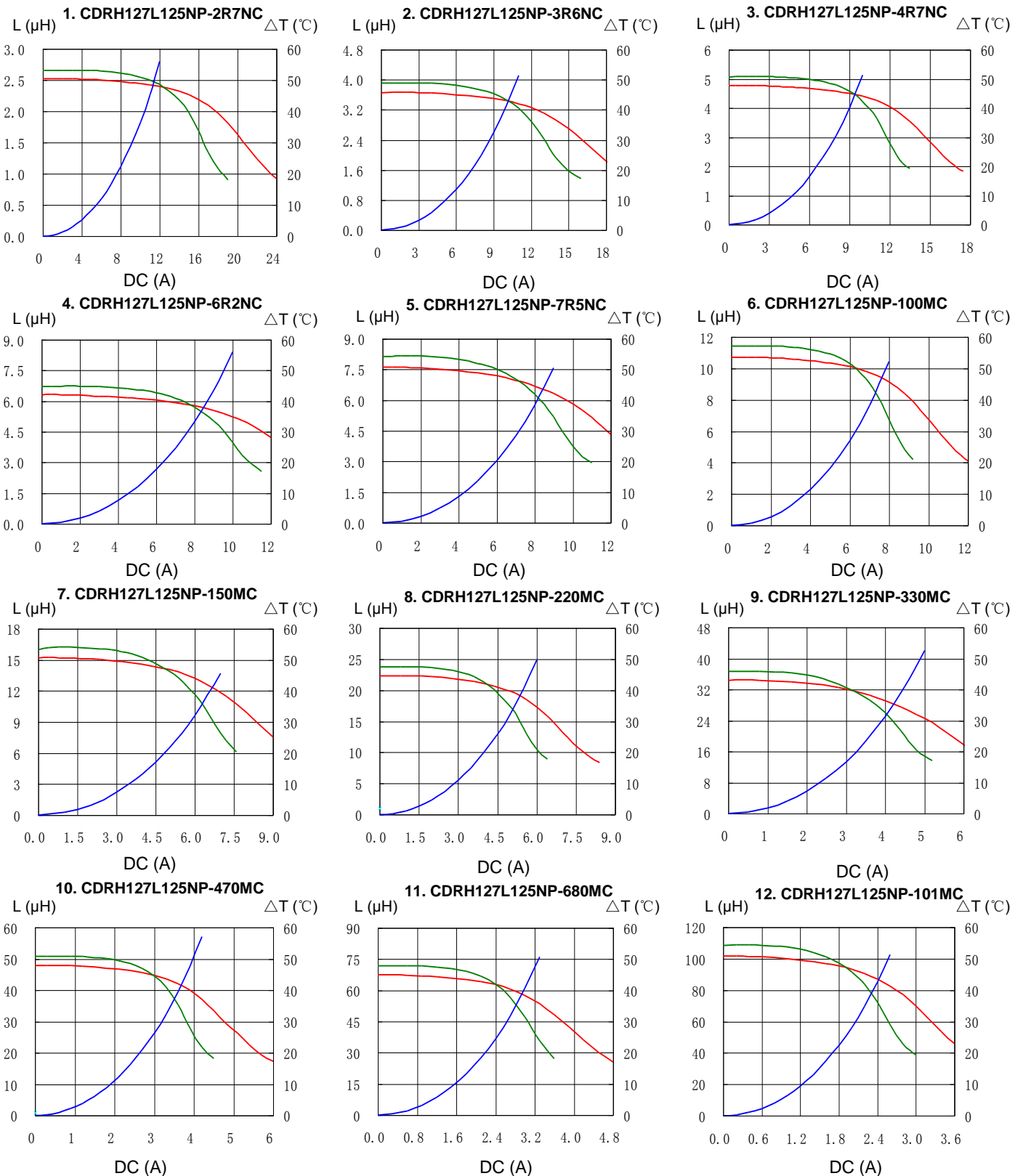
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

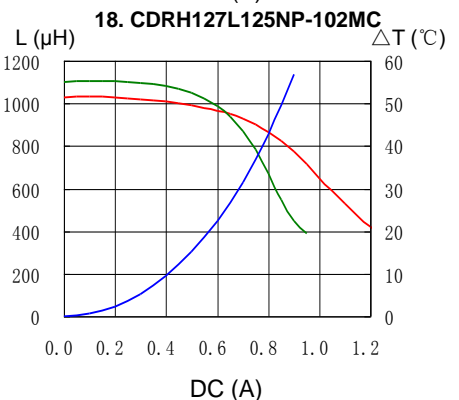
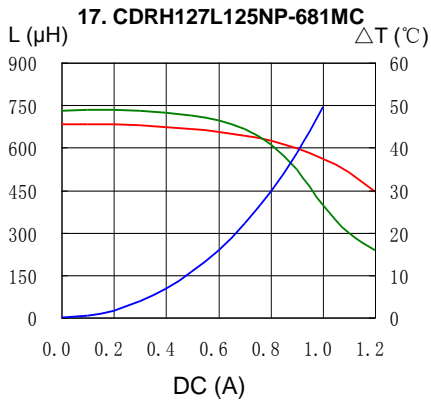
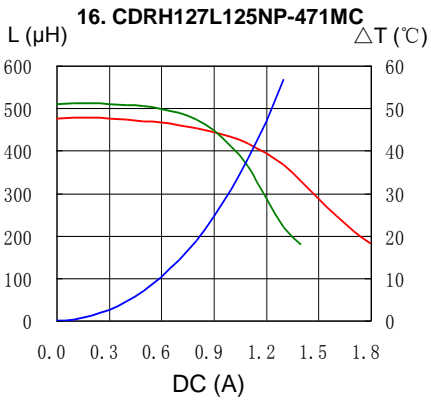
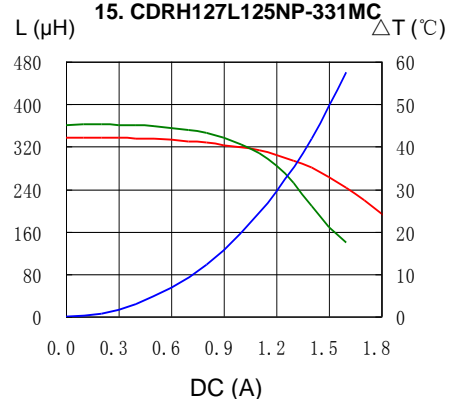
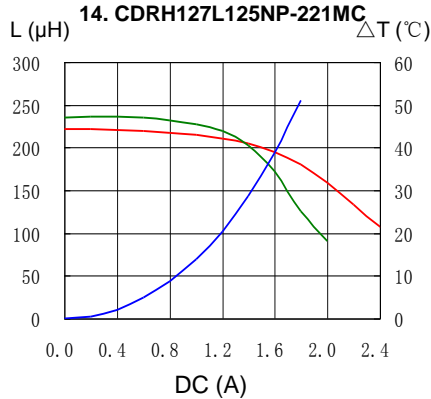
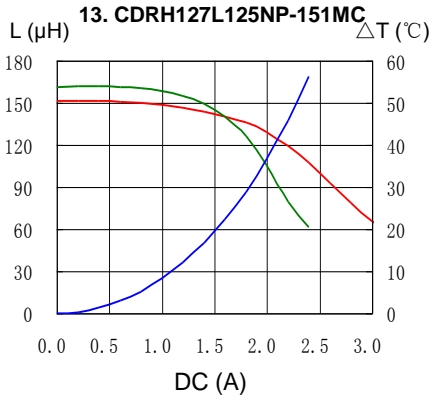
— L (20°C) — L (125°C) —  $\Delta T$



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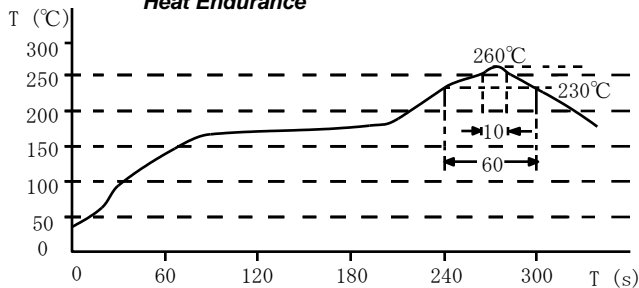


— L (20°C) — L (125°C) —  $\Delta T$

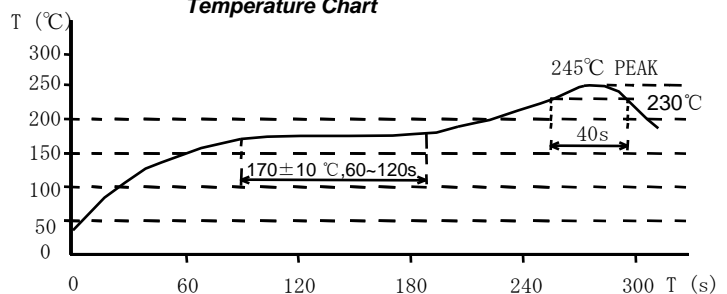


## Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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