

# SMD Power Inductor CDH30D14/H125



## Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 3.2 × 3.2 × 1.5 mm Max.
- Product weight: 48mg(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.

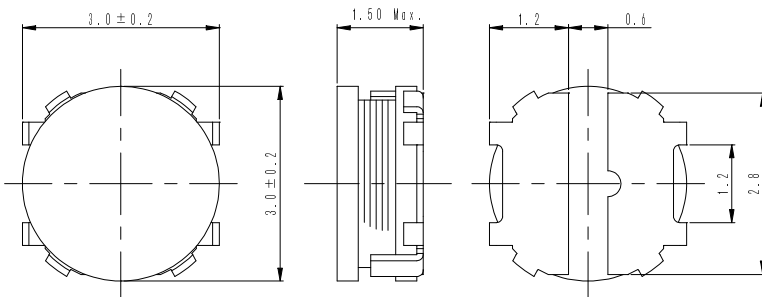
## Packaging

- Carrier tape and reel packaging
- 7" diameter reel
- 1000pcs per reel

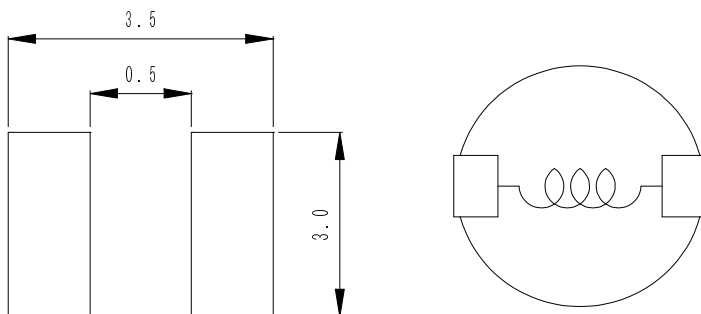
## Applications

- Automotive and other high temperature, high reliability application.

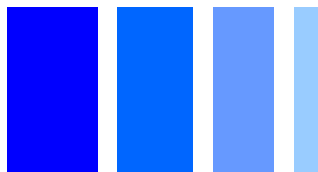
## Dimension - [mm]



## Land pattern and Schematics - [mm]



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## Electrical Characteristics

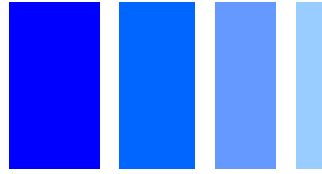
Part Name	Stamp	Inductance ( $\mu$ H) [Within] ※1	D.C.R. (m $\Omega$ ) [Within] (at 20°C)	Allowable D.C. bias current (A)※2		Temperature rise current (A) ※3
				(at 20°C)	(at 125°C)	
CDH30D14H125NP-1R0MC	A	1.0 $\pm$ 20%	55 $\pm$ 25%	2.7	2.2	2.3
CDH30D14H125NP-2R2MC	B	2.2 $\pm$ 20%	105 $\pm$ 25%	1.9	1.5	1.6
CDH30D14H125NP-3R3MC	C	3.3 $\pm$ 20%	155 $\pm$ 25%	1.5	1.3	1.3
CDH30D14H125NP-4R7MC	E	4.7 $\pm$ 20%	200 $\pm$ 25%	1.3	1.1	1.2
CDH30D14H125NP-5R6MC	D	5.6 $\pm$ 20%	250 $\pm$ 25%	1.1	0.95	0.90
CDH30D14H125NP-6R8MC	G	6.8 $\pm$ 20%	350 $\pm$ 25%	1.0	0.80	0.78
CDH30D14H125NP-100MC	F	10.0 $\pm$ 20%	520 $\pm$ 25%	0.95	0.70	0.64

※1 Measuring frequency inductance at 100kHz, 1V.

※2 Allowable D.C. bias current: the value of D.C. current when inductance is above 70% of its initial value.

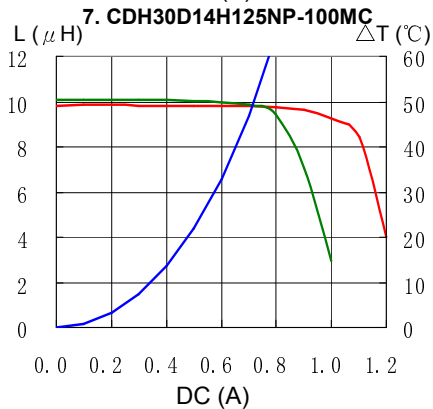
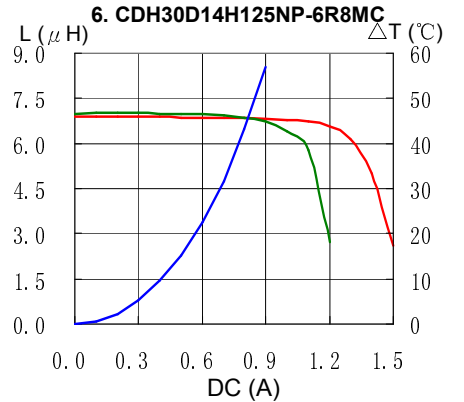
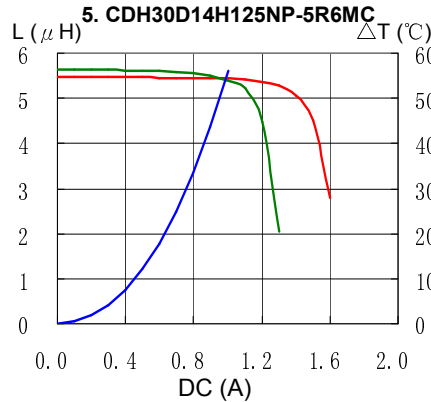
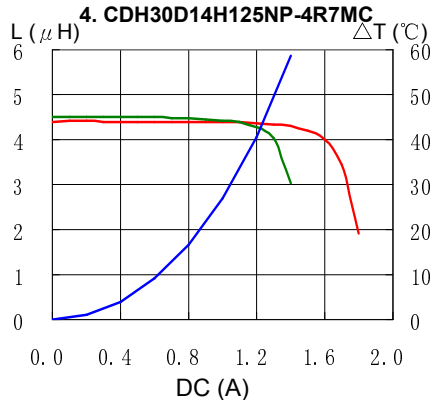
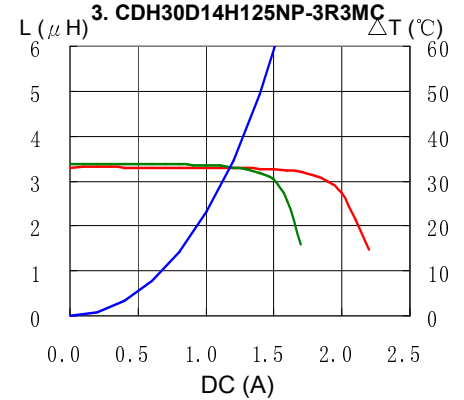
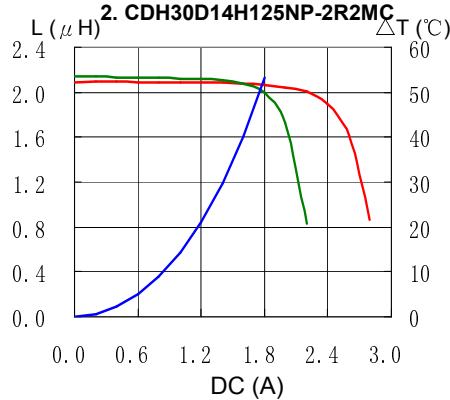
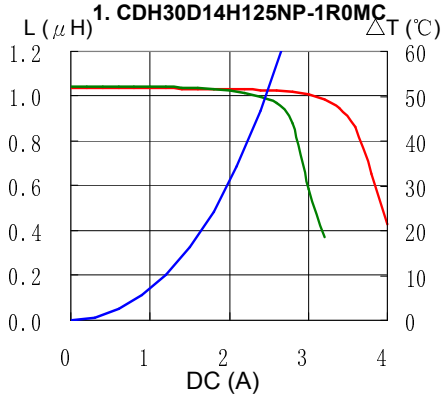
※3 Temperature rise current: the actual value of D.C. current when temperature of coil increased  
 $\Delta T=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (125°C) —  $\Delta T$



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## Solder Reflow Condition

