

# SMD Power Inductor CDRH5D28R/HP



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 6.3 × 6.2 × 3.0 mm Max.
- Product weight: 0.4g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Environmental Data

- Operating temperature range: -40°C ~ +105°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +105°C
- Solder reflow temperature: 260 °C peak.

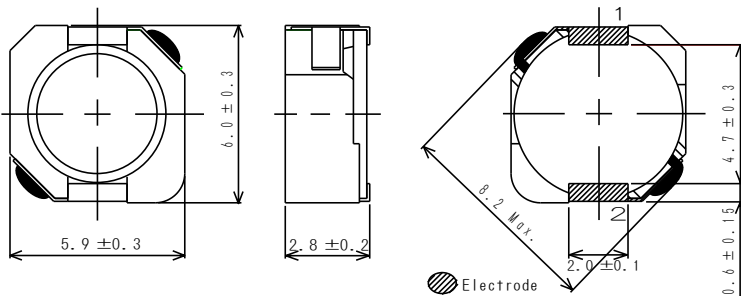
## Packaging

- Carrier tape and reel packaging
- 13.0" diameter reel
- 2000pcs per reel

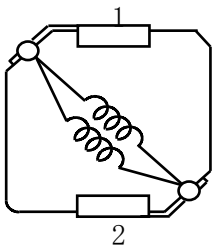
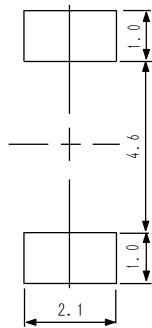
## Applications

- Ideally used in Notebook PC, HDD, DSC/DVC, LCD TV, Game machine etc. as DC-DC converter inductors.

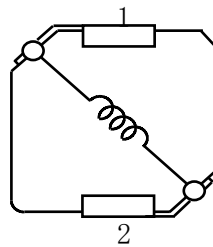
## Dimension - [mm]



## Land pattern and Schematics - [mm]



(2.2µH ~ 10µH)



(12µH ~ 47µH)

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## Electrical Characteristics

Part Name	Stamp	Inductance ( $\mu\text{H}$ ) [ within ] ※1	D.C.R. (m $\Omega$ ) [Max.] (Typ.) (at 20°C)	Saturation Current (A) ※2		Temperature Rise Current (A) ※3
				at 20°C	at 105°C	
CDRH5D28RHPNP-2R2NC	2R2	2.2 $\pm$ 25%	24.8(19.8)	5.50	4.50	3.80
CDRH5D28RHPNP-3R0NC	3R0	3.0 $\pm$ 25%	31.8(25.4)	4.70	3.90	3.35
CDRH5D28RHPNP-4R7NC	4R7	4.7 $\pm$ 25%	43.1(34.5)	3.70	3.05	2.80
CDRH5D28RHPNP-5R6NC	5R6	5.6 $\pm$ 25%	47.9(38.3)	3.30	2.65	2.70
CDRH5D28RHPNP-6R8NC	6R8	6.8 $\pm$ 25%	61.3(49.0)	3.10	2.55	2.50
CDRH5D28RHPNP-8R2NC	8R2	8.2 $\pm$ 25%	88.4(70.7)	2.70	2.30	1.90
CDRH5D28RHPNP-100MC	100	10.0 $\pm$ 20%	93.0(74.4)	2.45	2.05	1.85
CDRH5D28RHPNP-120MC	120	12.0 $\pm$ 20%	115(92.1)	2.30	2.00	1.60
CDRH5D28RHPNP-150MC	150	15.0 $\pm$ 20%	144(115)	2.05	1.65	1.40
CDRH5D28RHPNP-180MC	180	18.0 $\pm$ 20%	161(128)	1.90	1.55	1.35
CDRH5D28RHPNP-220MC	220	22.0 $\pm$ 20%	213(171)	1.75	1.42	1.20
CDRH5D28RHPNP-270MC	270	27.0 $\pm$ 20%	277(221)	1.60	1.30	1.00
CDRH5D28RHPNP-330MC	330	33.0 $\pm$ 20%	314(251)	1.35	1.10	0.90
CDRH5D28RHPNP-470MC	470	47.0 $\pm$ 20%	379(303)	1.20	1.00	0.85

※1. Inductance measuring condition: at 100kHz.

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

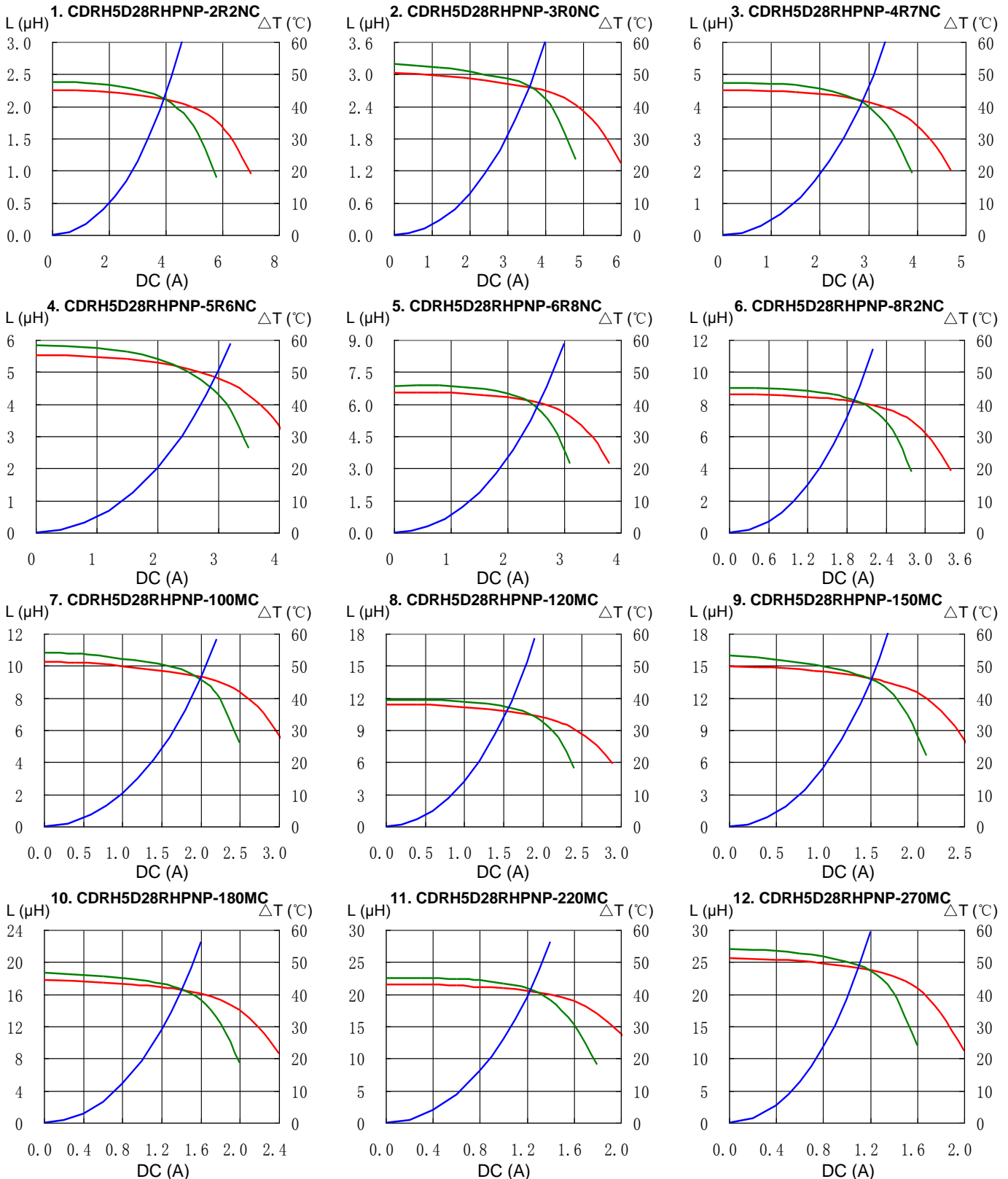
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^\circ\text{C}$  ( $T_a=20^\circ\text{C}$ ).

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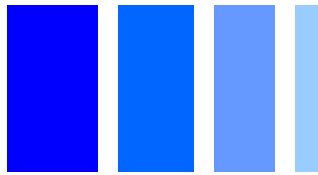


## Saturation Current & Temperature Rise Graph

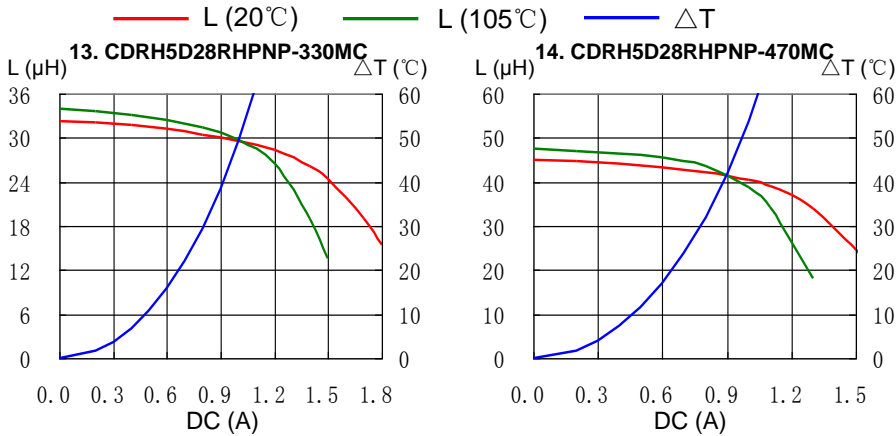
— L (20°C) — L (105°C) —  $\Delta T$



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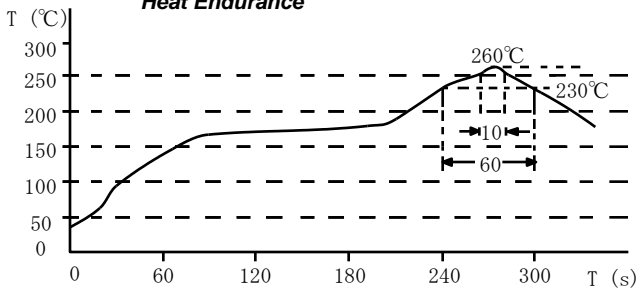


## Saturation Current & Temperature Rise Graph

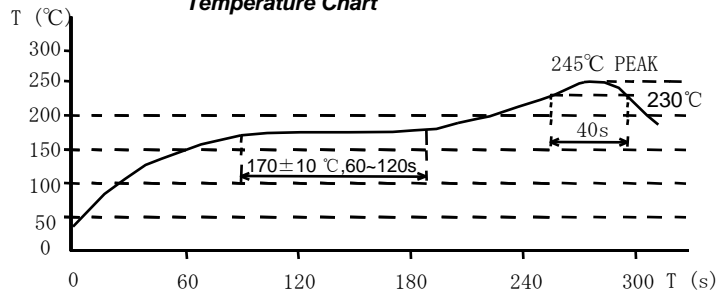


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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