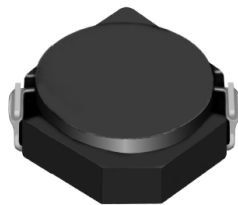


# SMD Power Inductor CDRH3D14/LD



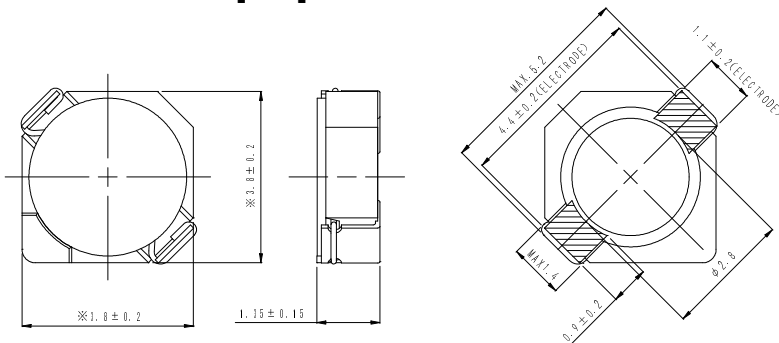
Halogen  
Free



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 4.0 × 4.0 × 1.5 mm Max.
- Product weight: 70mg(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Dimension - [mm]



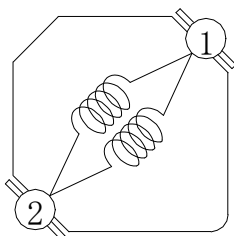
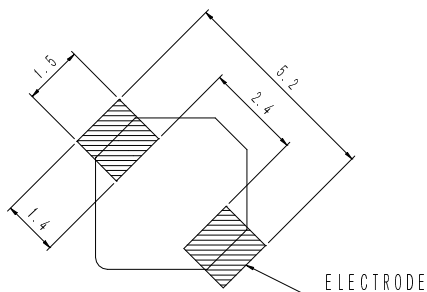
## Environmental Data

- Operating temperature range:  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$  (including coil's self temperature rise)
- Storage temperature range:  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- Solder reflow temperature:  $260^{\circ}\text{C}$  peak.

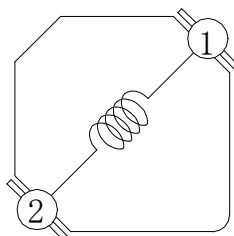
## Packaging

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

## Land pattern and Schematics - [mm]



( $1.2 \mu\text{H} \sim 3.0 \mu\text{H}$ )



( $3.9 \mu\text{H} \sim 47 \mu\text{H}$ )

## Applications

- Ideally used in Mobile phone, PDA, MP3, DSC/DVC, Portable DVD, etc as DC-DC converter inductors.

# SMD Power Inductor

## CDRH3D14/LD



### Electrical Characteristics

| Part Name           | Stamp | Inductance<br>( $\mu$ H)<br>[ within ] ※1 | D.C.R. (m $\Omega$ )<br>Max. (Typ.)<br>(at 20°C) | Saturation Current<br>(A) ※2 |          | Temperature<br>Rise Current<br>(A) ※3 |
|---------------------|-------|-------------------------------------------|--------------------------------------------------|------------------------------|----------|---------------------------------------|
|                     |       |                                           |                                                  | at 20°C                      | at 100°C |                                       |
| CDRH3D14/LDNP-1R2NC | A     | 1.2 $\pm$ 25%                             | 38 (30)                                          | 1.50                         | 1.28     | 2.70                                  |
| CDRH3D14/LDNP-1R5NC | B     | 1.5 $\pm$ 25%                             | 48 (38)                                          | 1.35                         | 1.05     | 2.40                                  |
| CDRH3D14/LDNP-2R0NC | C     | 2.0 $\pm$ 25%                             | 55 (44)                                          | 1.15                         | 0.95     | 2.20                                  |
| CDRH3D14/LDNP-2R5NC | D     | 2.5 $\pm$ 25%                             | 68 (54)                                          | 1.05                         | 0.80     | 1.90                                  |
| CDRH3D14/LDNP-3R0NC | E     | 3.0 $\pm$ 25%                             | 77 (62)                                          | 0.95                         | 0.75     | 1.60                                  |
| CDRH3D14/LDNP-3R9NC | F     | 3.9 $\pm$ 25%                             | 96 (77)                                          | 0.80                         | 0.65     | 1.50                                  |
| CDRH3D14/LDNP-4R5NC | G     | 4.5 $\pm$ 25%                             | 105 (84)                                         | 0.75                         | 0.60     | 1.45                                  |
| CDRH3D14/LDNP-5R6NC | H     | 5.6 $\pm$ 25%                             | 159 (127)                                        | 0.70                         | 0.55     | 1.10                                  |
| CDRH3D14/LDNP-6R8NC | I     | 6.8 $\pm$ 25%                             | 173 (138)                                        | 0.60                         | 0.50     | 1.05                                  |
| CDRH3D14/LDNP-100NC | K     | 10 $\pm$ 25%                              | 220 (176)                                        | 0.50                         | 0.38     | 1.00                                  |
| CDRH3D14/LDNP-120NC | L     | 12 $\pm$ 25%                              | 270 (216)                                        | 0.45                         | 0.35     | 0.80                                  |
| CDRH3D14/LDNP-150NC | M     | 15 $\pm$ 25%                              | 302 (242)                                        | 0.40                         | 0.30     | 0.75                                  |
| CDRH3D14/LDNP-220NC | O     | 22 $\pm$ 25%                              | 447 (358)                                        | 0.35                         | 0.27     | 0.60                                  |
| CDRH3D14/LDNP-330NC | Q     | 33 $\pm$ 25%                              | 848 (679)                                        | 0.30                         | 0.25     | 0.40                                  |
| CDRH3D14/LDNP-470NC | R     | 47 $\pm$ 25%                              | 1078 (863)                                       | 0.25                         | 0.20     | 0.35                                  |

※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.

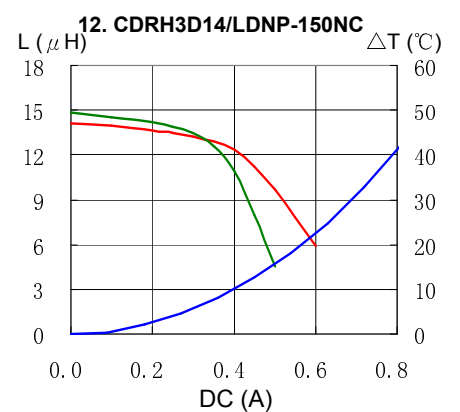
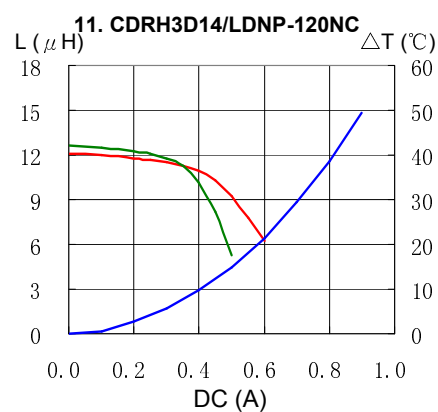
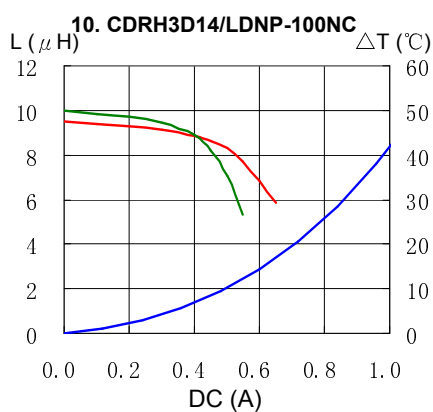
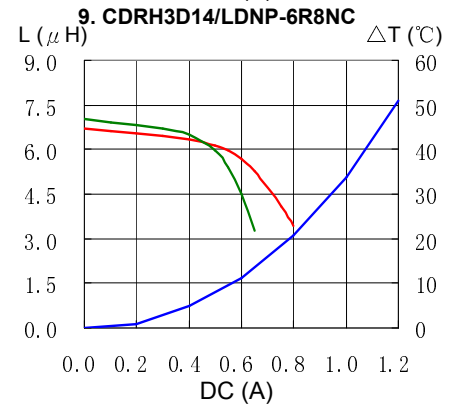
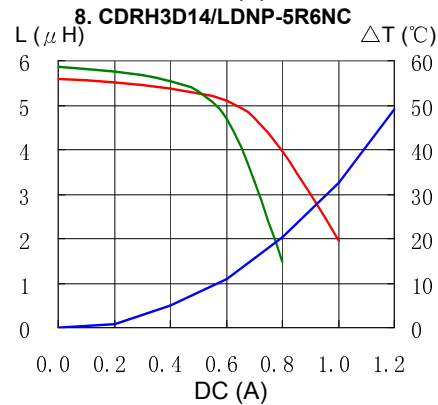
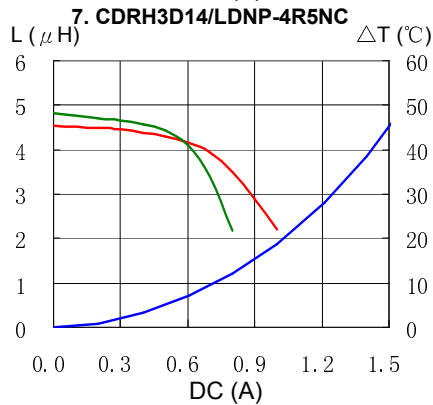
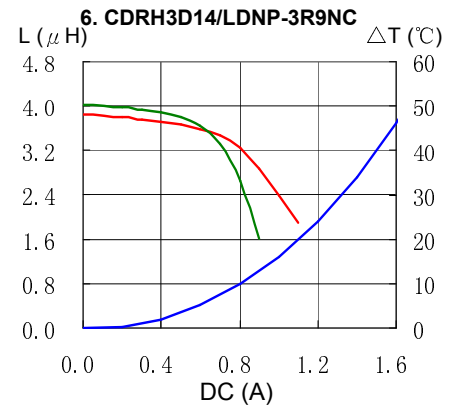
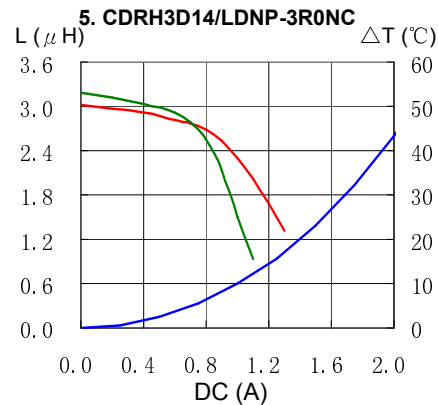
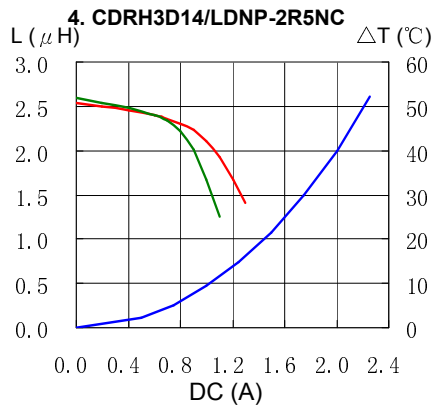
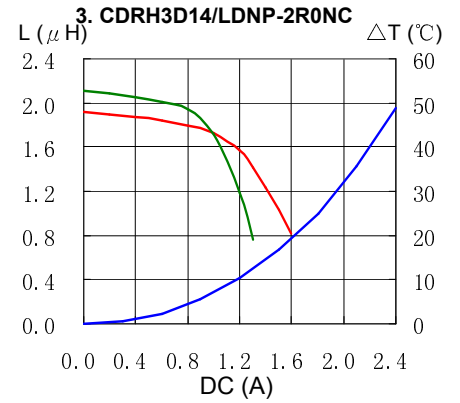
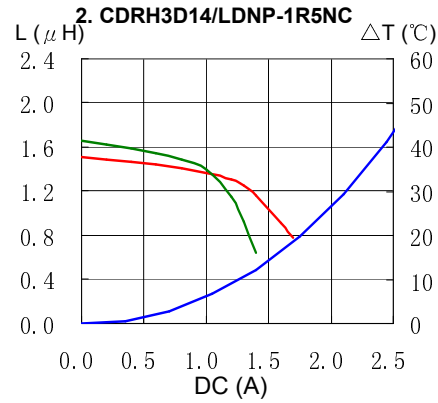
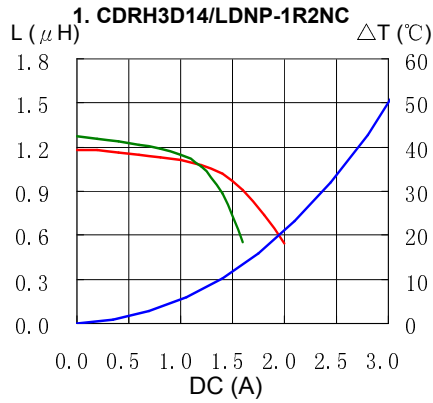
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

# SMD Power Inductor CDRH3D14/LD



## Saturation Current & Temperature Rise Graph

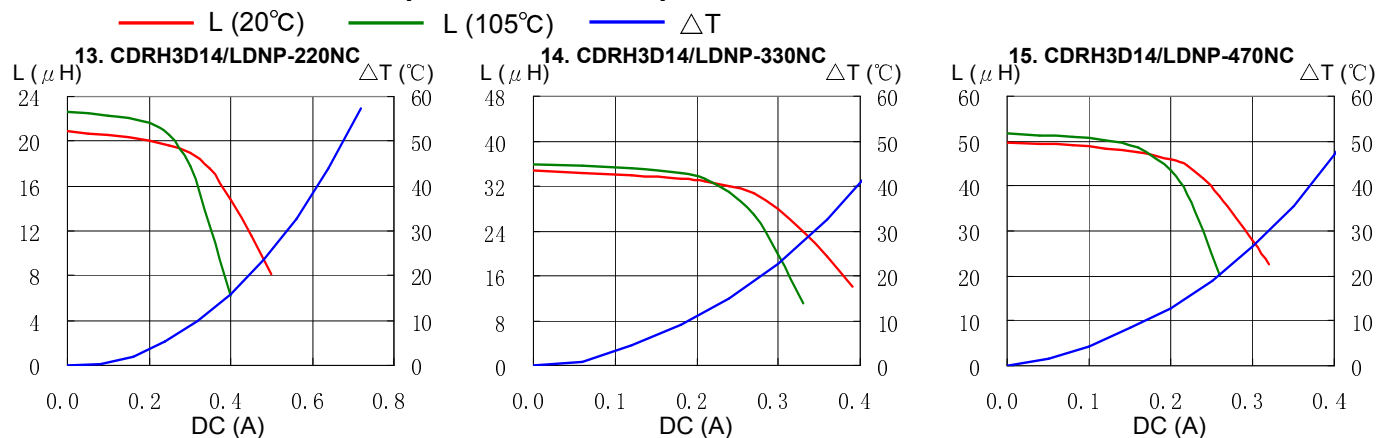
— L (20°C) — L (105°C) —  $\Delta T$



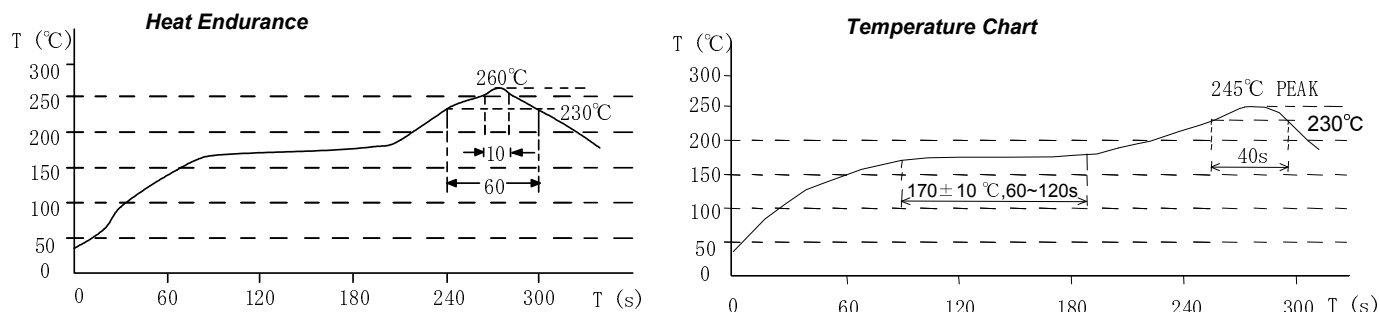
# SMD Power Inductor CDRH3D14/LD



## Saturation Current & Temperature Rise Graph



## Solder Reflow Condition



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