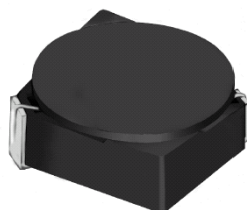


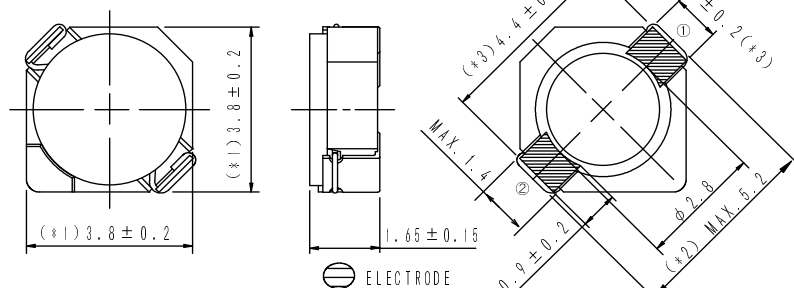
# SMD Power Inductor CDRH3D16/LD



Halogen  
Free

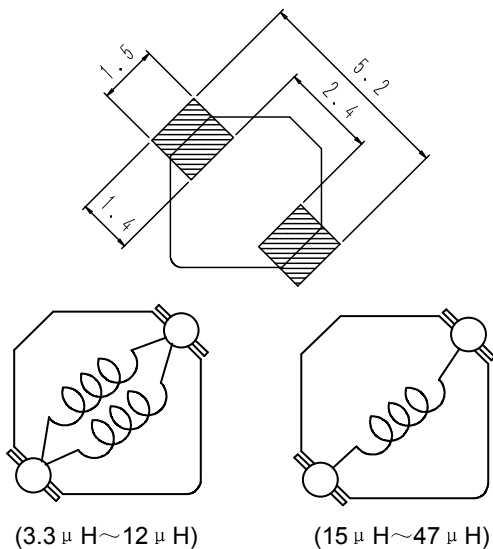


## Dimension - [mm]



(\*2) MAX.5.4 SHOULD BE USED FOR DOUBLE WIRE WINDING.

## Land pattern and Schematics - [mm]



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 4.0 × 4.0 × 1.8 mm Max.
- Product weight: 80mg (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## 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

## Applications

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

# SMD Power Inductor CDRH3D16/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 |                                       |
| CDRH3D16/LDNP-3R3NC | A     | 3.3 $\pm$ 30%                             | 66(53)                                           | 0.80                         | 0.52     | 2.00                                  |
| CDRH3D16/LDNP-3R9NC | B     | 3.9 $\pm$ 30%                             | 81(65)                                           | 0.75                         | 0.44     | 1.75                                  |
| CDRH3D16/LDNP-4R7NC | C     | 4.7 $\pm$ 30%                             | 91(73)                                           | 0.68                         | 0.43     | 1.72                                  |
| CDRH3D16/LDNP-5R6NC | D     | 5.6 $\pm$ 30%                             | 102(82)                                          | 0.62                         | 0.38     | 1.64                                  |
| CDRH3D16/LDNP-6R8NC | E     | 6.8 $\pm$ 30%                             | 130(104)                                         | 0.58                         | 0.34     | 1.30                                  |
| CDRH3D16/LDNP-8R2NC | F     | 8.2 $\pm$ 30%                             | 140(112)                                         | 0.51                         | 0.32     | 1.28                                  |
| CDRH3D16/LDNP-100NC | G     | 10 $\pm$ 30%                              | 190(152)                                         | 0.46                         | 0.27     | 1.07                                  |
| CDRH3D16/LDNP-120NC | H     | 12 $\pm$ 30%                              | 205(164)                                         | 0.42                         | 0.26     | 0.98                                  |
| CDRH3D16/LDNP-150NC | J     | 15 $\pm$ 30%                              | 272(218)                                         | 0.38                         | 0.23     | 0.87                                  |
| CDRH3D16/LDNP-180NC | K     | 18 $\pm$ 30%                              | 327(262)                                         | 0.34                         | 0.21     | 0.76                                  |
| CDRH3D16/LDNP-220NC | L     | 22 $\pm$ 30%                              | 356(285)                                         | 0.31                         | 0.18     | 0.66                                  |
| CDRH3D16/LDNP-270NC | M     | 27 $\pm$ 30%                              | 470(377)                                         | 0.28                         | 0.17     | 0.60                                  |
| CDRH3D16/LDNP-330NC | N     | 33 $\pm$ 30%                              | 560(446)                                         | 0.26                         | 0.16     | 0.55                                  |
| CDRH3D16/LDNP-390NC | P     | 39 $\pm$ 30%                              | 700(558)                                         | 0.24                         | 0.15     | 0.47                                  |
| CDRH3D16/LDNP-470NC | Q     | 47 $\pm$ 30%                              | 775(630)                                         | 0.21                         | 0.13     | 0.45                                  |

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The DC current at which the inductance decreases to 65% of its nominal value.

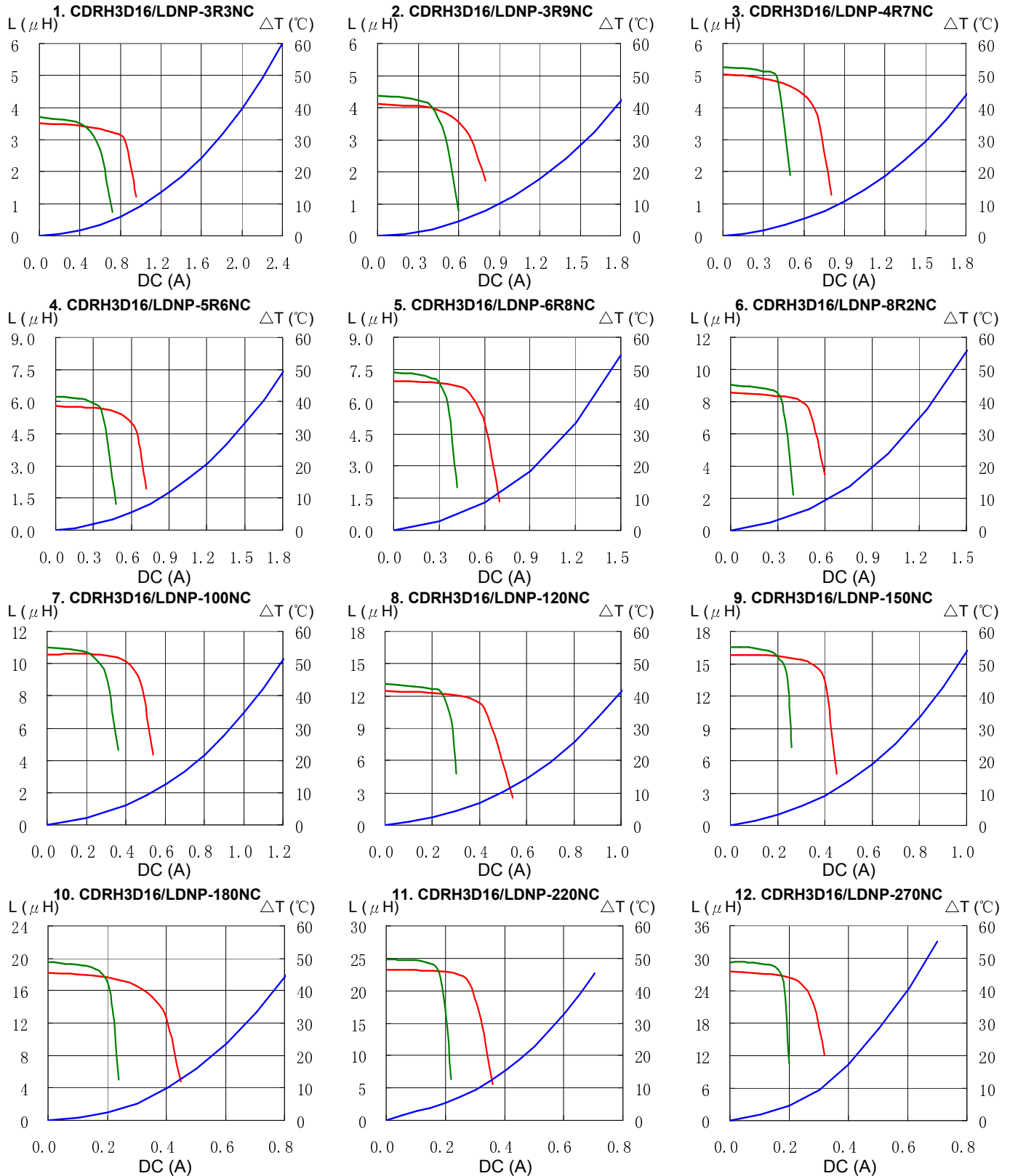
※3. Temperature rise current: The DC current at which the temperature rise is  $\Delta t=40^{\circ}\text{C}$ . ( $T_a=20^{\circ}\text{C}$ )

# SMD Power Inductor CDRH3D16/LD



## Saturation Current & Temperature Rise Graph

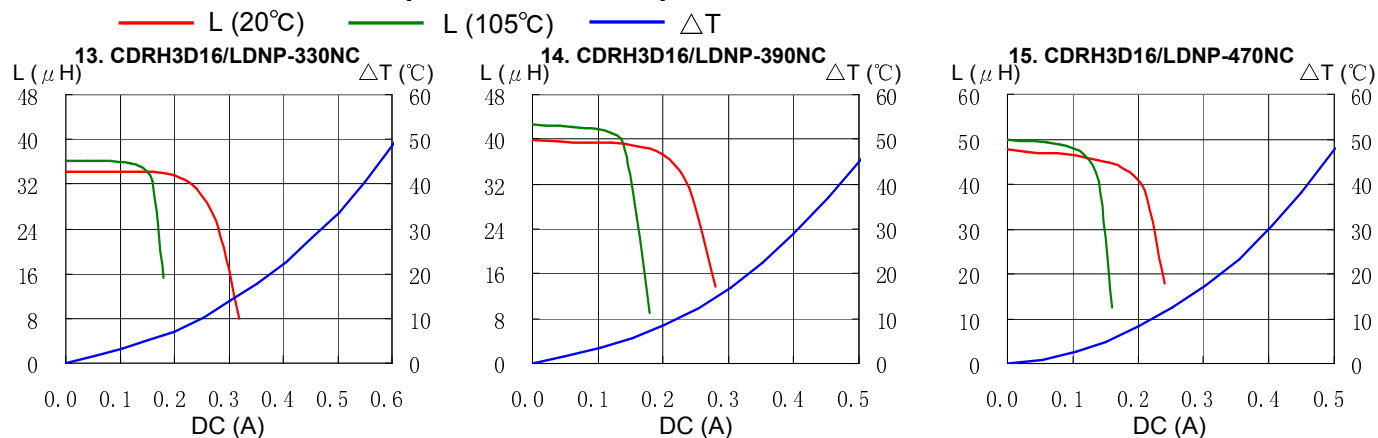
— L (20°C) — L (105°C) —  $\Delta T$



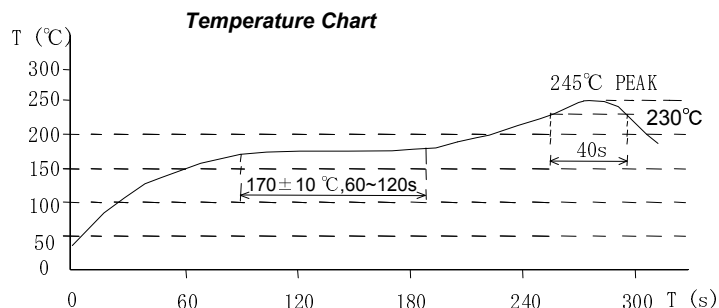
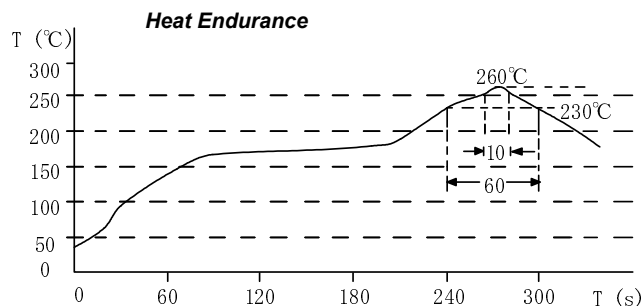
# SMD Power Inductor CDRH3D16/LD



## Saturation Current & Temperature Rise Graph



## Solder Reflow Condition



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