

# SMD Power Inductor

## CDRH3D11/HP



### Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 4.0 × 4.0 × 1.2 mm Max.
- Product weight: 55mg(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.

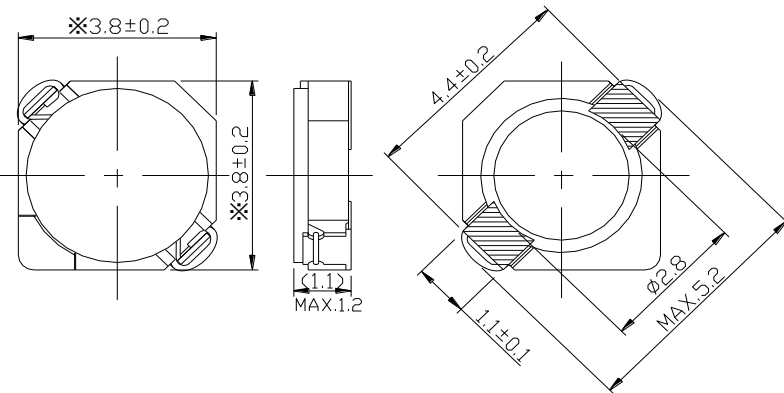
### Packaging

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

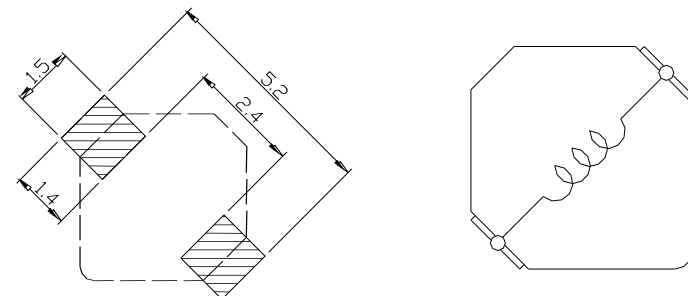
### Applications

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

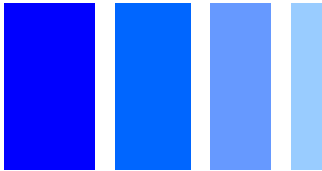
### Dimension - [mm]



### Land pattern and Schematics - [mm]



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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 105°C |                                       |
| CDRH3D11HPNP-0R6NC | A     | 0.6 $\pm$ 25%                             | 59(45)                                           | 2.90                         | 2.10     | 1.80                                  |
| CDRH3D11HPNP-1R2NC | B     | 1.2 $\pm$ 25%                             | 82(63)                                           | 2.00                         | 1.50     | 1.70                                  |
| CDRH3D11HPNP-1R5NC | C     | 1.5 $\pm$ 25%                             | 104(80)                                          | 1.85                         | 1.40     | 1.45                                  |
| CDRH3D11HPNP-2R2NC | D     | 2.2 $\pm$ 25%                             | 143(110)                                         | 1.60                         | 1.20     | 1.15                                  |
| CDRH3D11HPNP-3R3NC | E     | 3.3 $\pm$ 25%                             | 182(140)                                         | 1.25                         | 0.90     | 0.95                                  |
| CDRH3D11HPNP-4R7NC | F     | 4.7 $\pm$ 25%                             | 234(180)                                         | 1.00                         | 0.70     | 0.90                                  |
| CDRH3D11HPNP-6R8NC | G     | 6.8 $\pm$ 25%                             | 377(290)                                         | 0.85                         | 0.63     | 0.70                                  |
| CDRH3D11HPNP-100NC | H     | 10.0 $\pm$ 25%                            | 413(330)                                         | 0.80                         | 0.60     | 0.60                                  |
| CDRH3D11HPNP-120NC | I     | 12.0 $\pm$ 25%                            | 585(470)                                         | 0.64                         | 0.45     | 0.48                                  |
| CDRH3D11HPNP-150NC | J     | 15.0 $\pm$ 25%                            | 653(520)                                         | 0.58                         | 0.42     | 0.45                                  |
| CDRH3D11HPNP-180NC | K     | 18.0 $\pm$ 25%                            | 888(710)                                         | 0.52                         | 0.40     | 0.40                                  |
| CDRH3D11HPNP-220NC | L     | 22.0 $\pm$ 25%                            | 1012(810)                                        | 0.45                         | 0.35     | 0.33                                  |

- ※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  $\Delta t=40^{\circ}\text{C}$ ( $T_a=20^{\circ}\text{C}$ ).

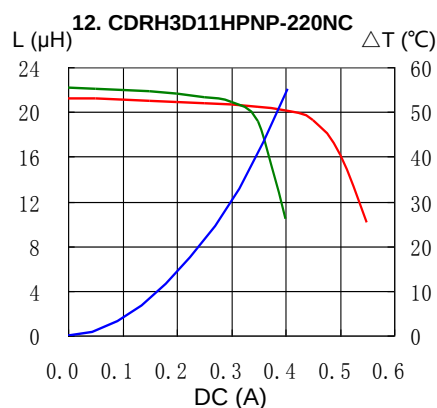
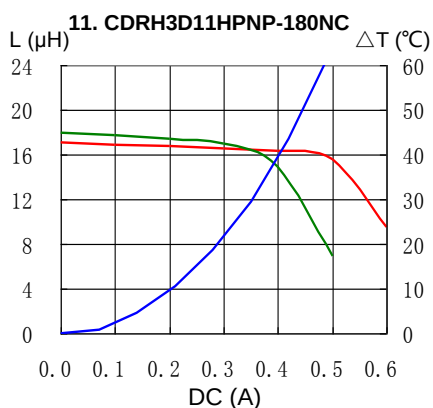
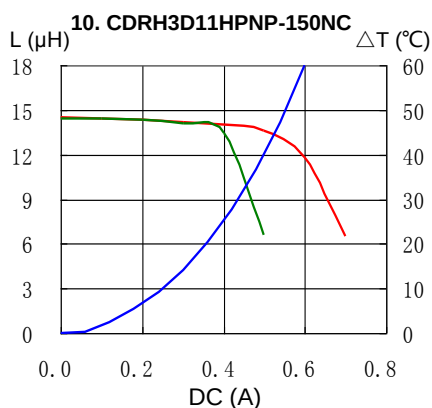
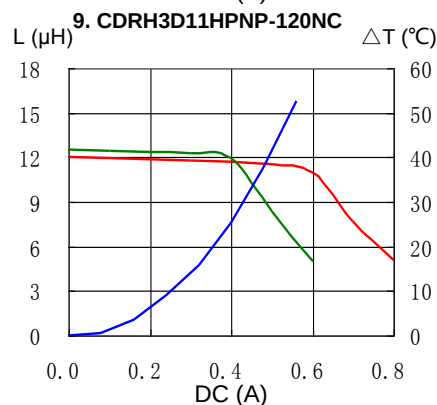
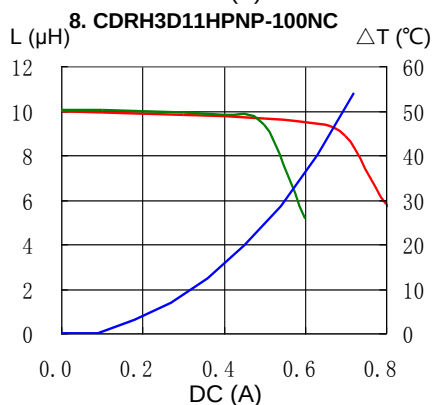
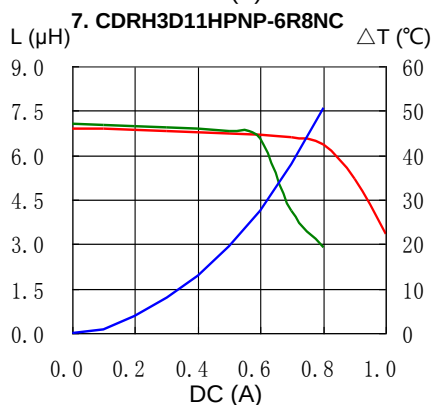
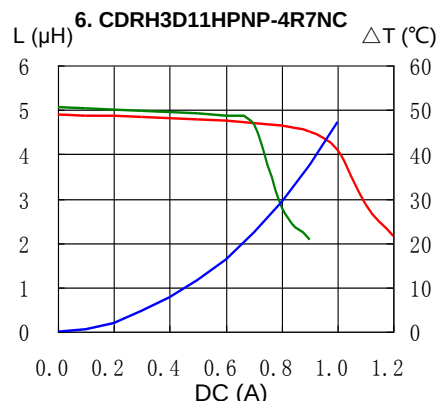
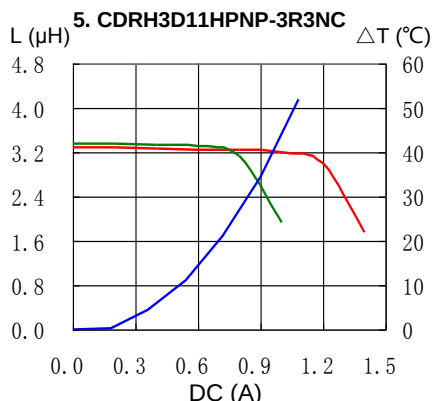
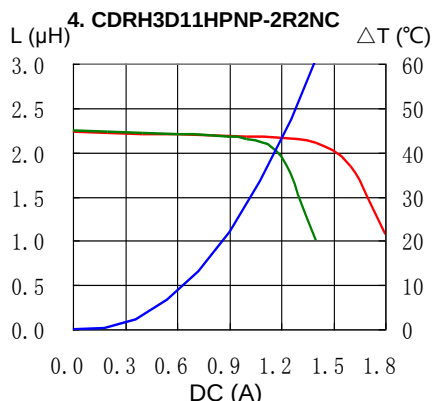
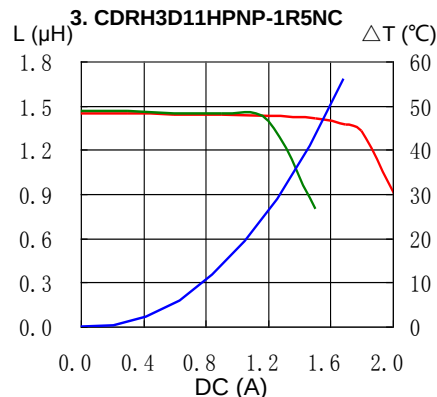
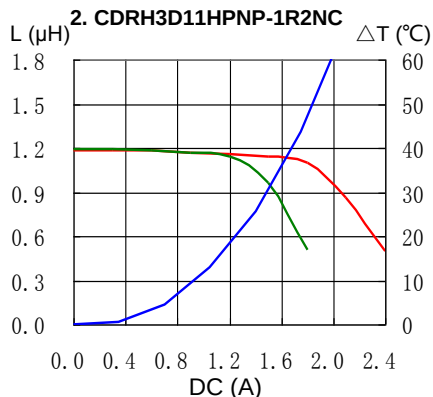
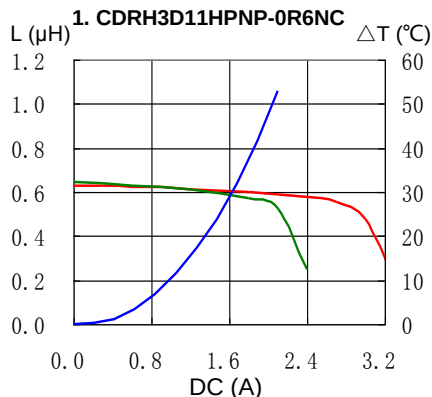
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### Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

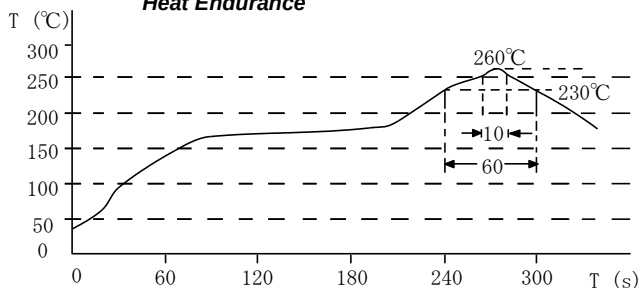


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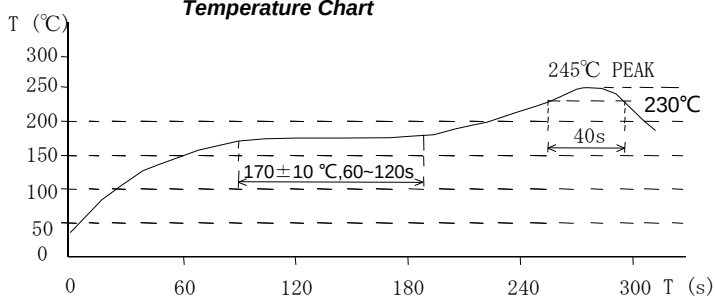


## Solder Reflow Condition

Heat Endurance



Temperature Chart



Please refer to the sales offices on our website - <http://www.sumida.com>

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