

# SMD Power Inductor CDR156



## Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 18.5 × 15.0 × 7.0 mm Max.
- Product weight: 3.1g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Environmental Data

- Operating temperature range: -40°C~+100°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+100°C
- Solder reflow temperature: 260 °C peak.

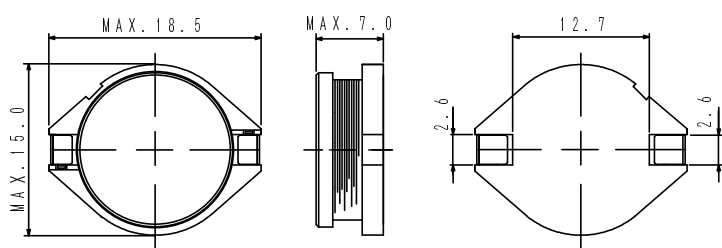
## Packaging

- Carrier tape and reel packaging
- 12.9" diameter reel
- 300pcs per reel

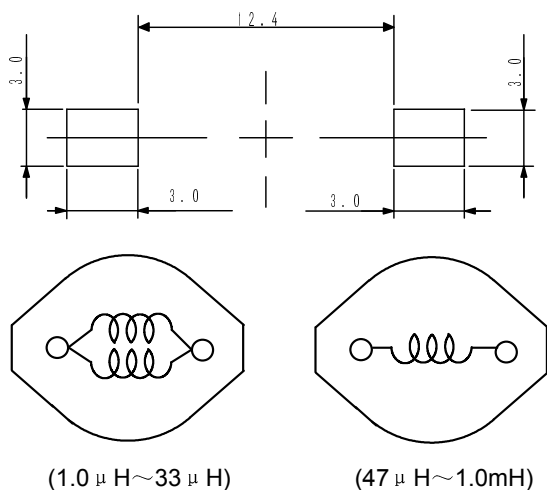
## Applications

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

## Dimension - [mm]



## Land pattern and Schematics - [mm]



# SMD Power Inductor CDR156



## 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<br>Current<br>(A) ※2 | Temperature<br>Rise Current<br>(A) ※3 |
|----------------|-------|------------------------------------------|--------------------------------------------------|---------------------------------|---------------------------------------|
| CDR156NP-1R0MC | 1R0M  | 1.0 $\pm$ 20%                            | 5.3(4.2)                                         | 28.0                            | 10.0                                  |
| CDR156NP-2R5MC | 2R5M  | 2.5 $\pm$ 20%                            | 8.1(6.5)                                         | 18.4                            | 9.0                                   |
| CDR156NP-3R3MC | 3R3M  | 3.3 $\pm$ 20%                            | 9.8(7.8)                                         | 16.4                            | 7.5                                   |
| CDR156NP-5R6MC | 5R6M  | 5.6 $\pm$ 20%                            | 13.5(10.8)                                       | 12.8                            | 7.0                                   |
| CDR156NP-6R8MC | 6R8M  | 6.8 $\pm$ 20%                            | 17.5(14.0)                                       | 11.2                            | 6.0                                   |
| CDR156NP-100LC | 100L  | 10 $\pm$ 15%                             | 25.0(20.0)                                       | 9.6                             | 5.5                                   |
| CDR156NP-150LC | 150L  | 15 $\pm$ 15%                             | 34.5(27.6)                                       | 7.6                             | 4.3                                   |
| CDR156NP-220LC | 220L  | 22 $\pm$ 15%                             | 43.5(34.8)                                       | 6.4                             | 4.0                                   |
| CDR156NP-330LC | 330L  | 33 $\pm$ 15%                             | 68.0(54.4)                                       | 5.2                             | 3.0                                   |
| CDR156NP-470LC | 470L  | 47 $\pm$ 15%                             | 97.8(78.2)                                       | 4.2                             | 2.5                                   |
| CDR156NP-680LC | 680L  | 68 $\pm$ 15%                             | 144.6(115.7)                                     | 3.6                             | 2.0                                   |
| CDR156NP-101LC | 101L  | 100 $\pm$ 15%                            | 220.0(176.0)                                     | 2.9                             | 1.6                                   |
| CDR156NP-151LC | 151L  | 150 $\pm$ 15%                            | 315.2(252.2)                                     | 2.5                             | 1.3                                   |
| CDR156NP-221LC | 221L  | 220 $\pm$ 15%                            | 466.3(373.0)                                     | 2.0                             | 1.1                                   |
| CDR156NP-331LC | 331L  | 330 $\pm$ 15%                            | 646.0(516.8)                                     | 1.6                             | 0.9                                   |
| CDR156NP-471LC | 471L  | 470 $\pm$ 15%                            | 933.3(746.6)                                     | 1.4                             | 0.75                                  |
| CDR156NP-681LC | 681L  | 680 $\pm$ 15%                            | 1670(1340)                                       | 1.1                             | 0.55                                  |
| CDR156NP-102LC | 102L  | 1000 $\pm$ 15%                           | 2100(1750)                                       | 0.9                             | 0.48                                  |

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 90% of it's nominal value.

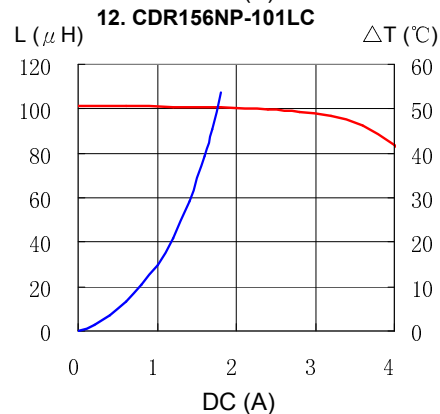
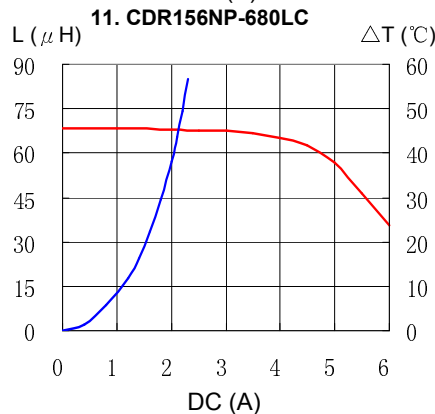
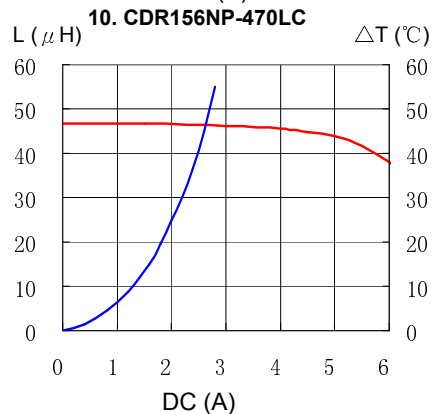
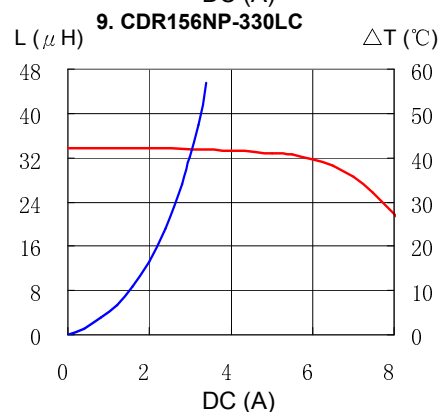
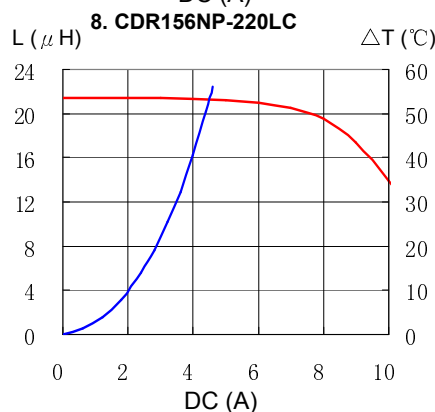
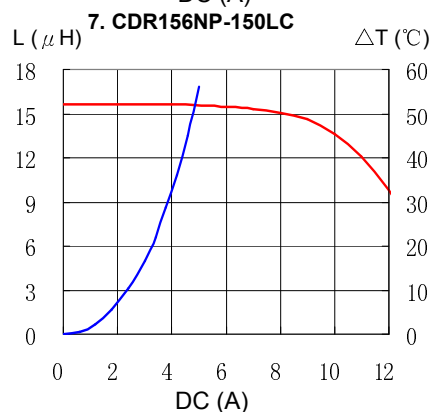
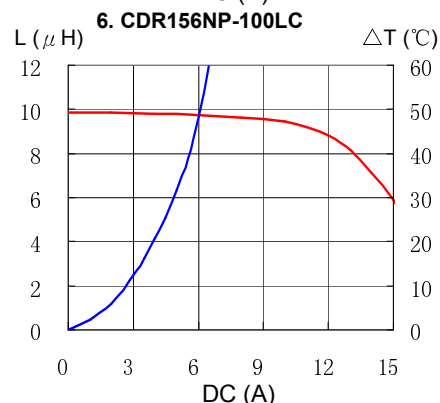
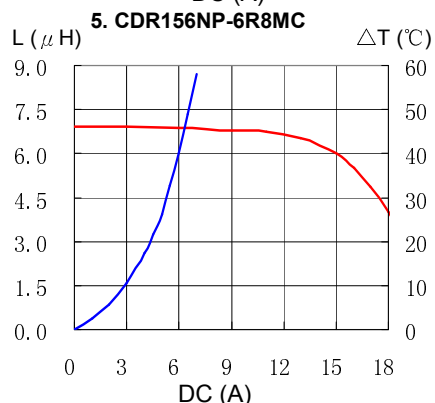
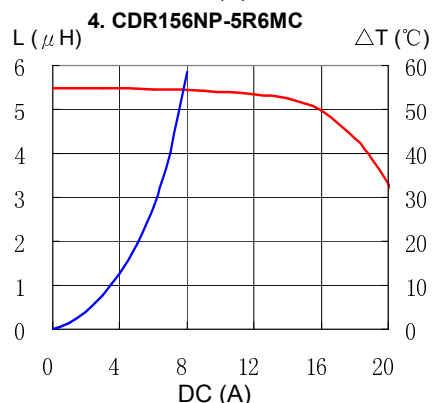
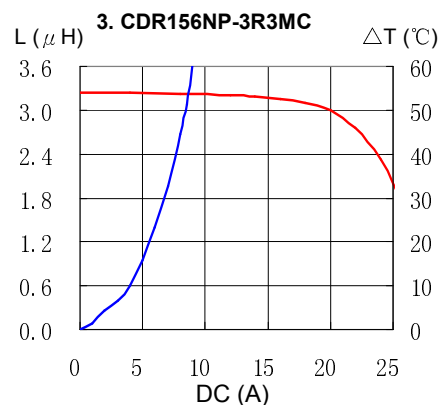
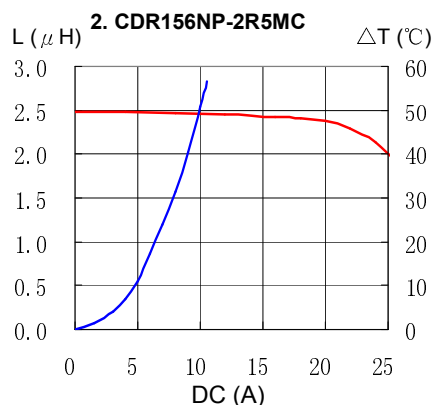
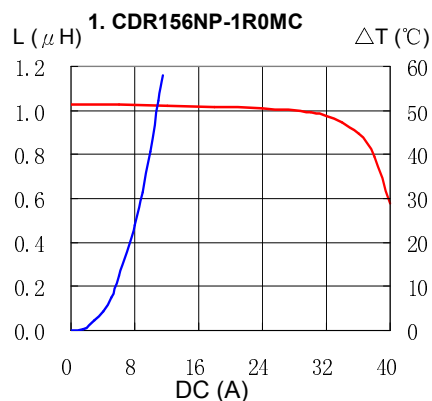
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

# SMD Power Inductor CDR156



## Saturation Current & Temperature Rise Graph

— L (20°C)    —  $\Delta T$

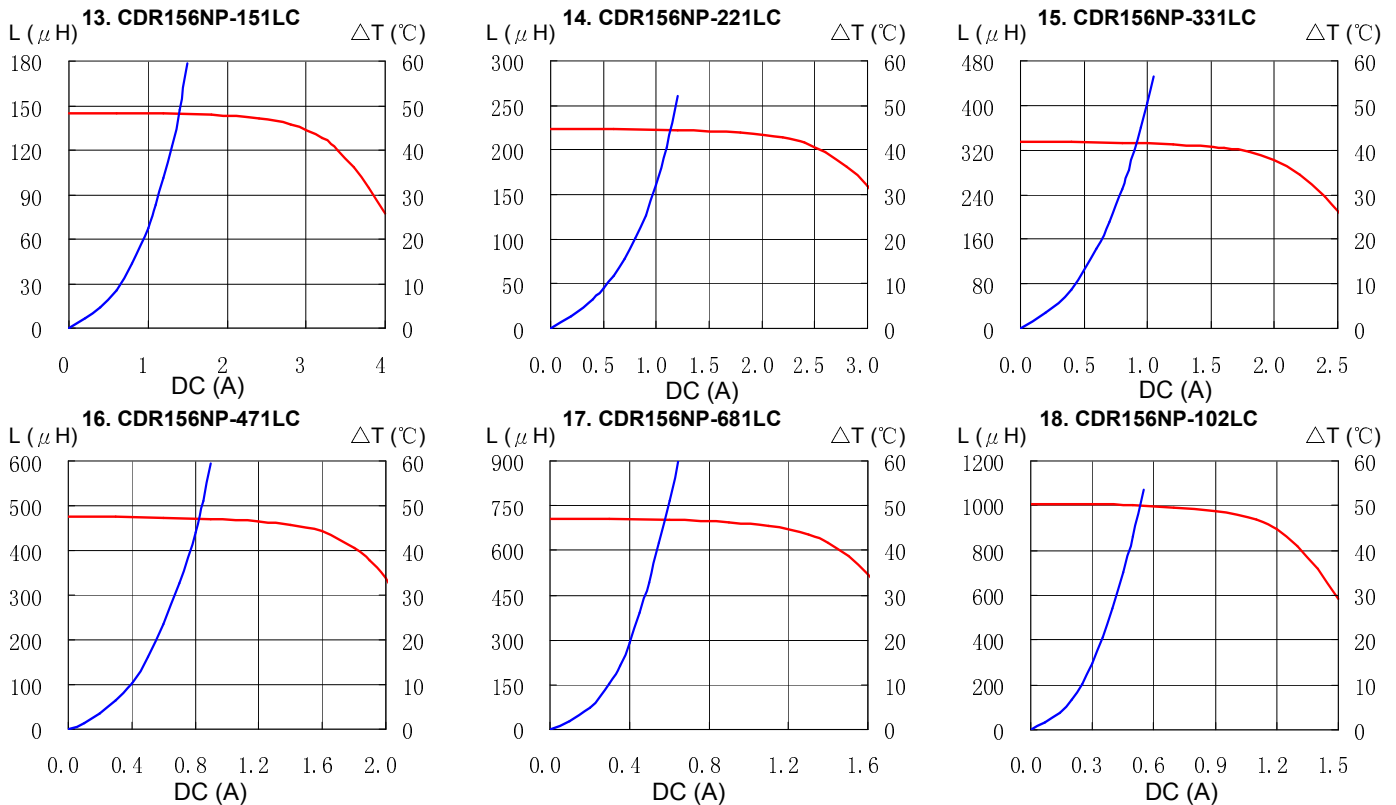


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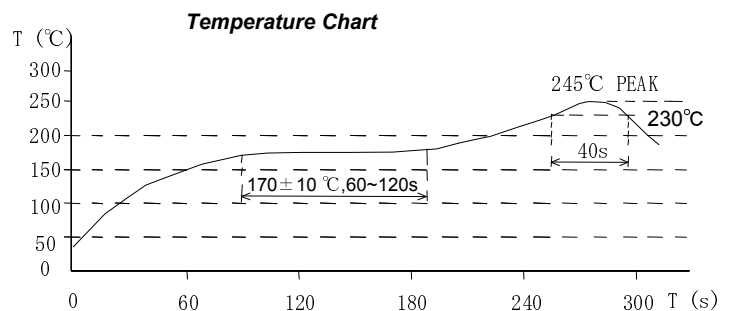
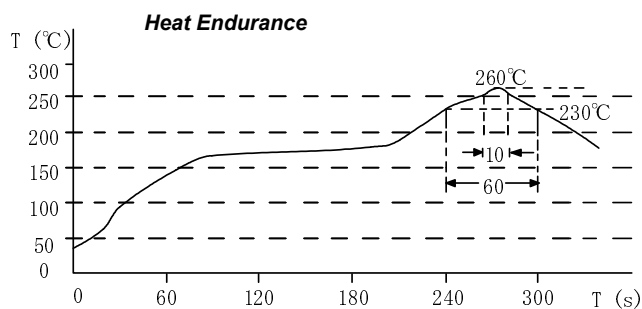


## Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$



## Solder Reflow Condition



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