

# SMD Power Inductor CDRH7D16



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 8.0 × 7.7 × 1.8 mm Max.
- Product weight: 0.4g(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.

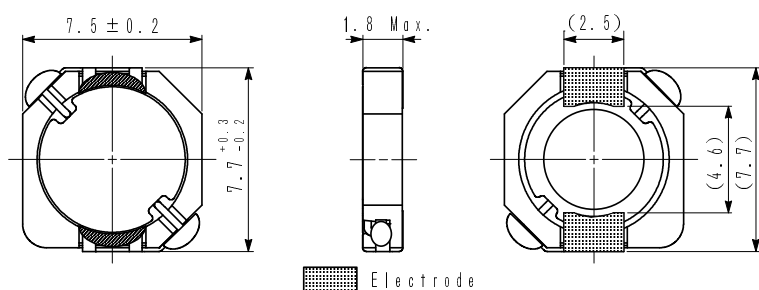
## Packaging

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

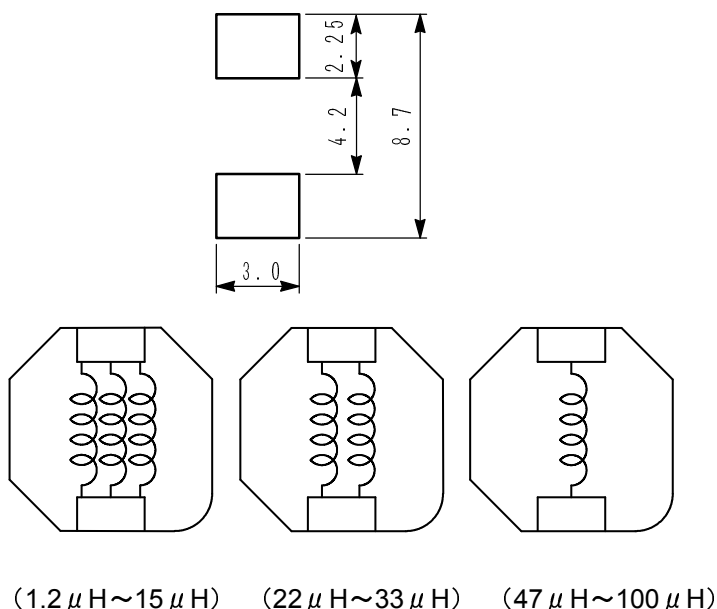
## Applications

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

## Dimension - [mm]



## Land pattern and Schematics - [mm]



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## Electrical Characteristics

| Part No.         | Stamp | Inductance<br>( $\mu$ H)<br>[ within ] ※ 1 | D.C.R. (m $\Omega$ )<br>[ within ]<br>(at 20°C) | Saturation Current<br>(A) ※ 2 |          | Temperature<br>Rise Current<br>(A) ※ 3 |
|------------------|-------|--------------------------------------------|-------------------------------------------------|-------------------------------|----------|----------------------------------------|
|                  |       |                                            |                                                 | at 20°C                       | at 100°C |                                        |
| CDRH7D16NP-1R2PC | 1R2   | 1.2 $\pm$ 25%                              | 16.8 $\pm$ 25%                                  | 4.60                          | 4.00     | 4.94                                   |
| CDRH7D16NP-1R8PC | 1R8   | 1.8 $\pm$ 25%                              | 20.4 $\pm$ 25%                                  | 3.60                          | 3.00     | 4.21                                   |
| CDRH7D16NP-2R4PC | 2R4   | 2.4 $\pm$ 25%                              | 24.8 $\pm$ 25%                                  | 3.10                          | 2.50     | 3.77                                   |
| CDRH7D16NP-3R3PC | 3R3   | 3.3 $\pm$ 25%                              | 30.9 $\pm$ 25%                                  | 2.70                          | 2.30     | 3.23                                   |
| CDRH7D16NP-4R7PC | 4R7   | 4.7 $\pm$ 25%                              | 45.4 $\pm$ 25%                                  | 2.40                          | 1.90     | 2.65                                   |
| CDRH7D16NP-6R8PC | 6R8   | 6.8 $\pm$ 25%                              | 61.0 $\pm$ 25%                                  | 2.00                          | 1.60     | 2.24                                   |
| CDRH7D16NP-100MC | 100   | 10 $\pm$ 20%                               | 78.6 $\pm$ 25%                                  | 1.60                          | 1.30     | 1.97                                   |
| CDRH7D16NP-150MC | 150   | 15 $\pm$ 20%                               | 115 $\pm$ 20%                                   | 1.30                          | 1.10     | 1.59                                   |
| CDRH7D16NP-220MC | 220   | 22 $\pm$ 20%                               | 161 $\pm$ 20%                                   | 1.10                          | 0.90     | 1.23                                   |
| CDRH7D16NP-330MC | 330   | 33 $\pm$ 20%                               | 246 $\pm$ 20%                                   | 0.92                          | 0.75     | 1.04                                   |
| CDRH7D16NP-470MC | 470   | 47 $\pm$ 20%                               | 369 $\pm$ 20%                                   | 0.76                          | 0.60     | 0.81                                   |
| CDRH7D16NP-680MC | 680   | 68 $\pm$ 20%                               | 517 $\pm$ 20%                                   | 0.64                          | 0.50     | 0.71                                   |
| CDRH7D16NP-101MC | 101   | 100 $\pm$ 20%                              | 696 $\pm$ 20%                                   | 0.53                          | 0.40     | 0.59                                   |

※1. Inductance measuring conditions at 100kHz.

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

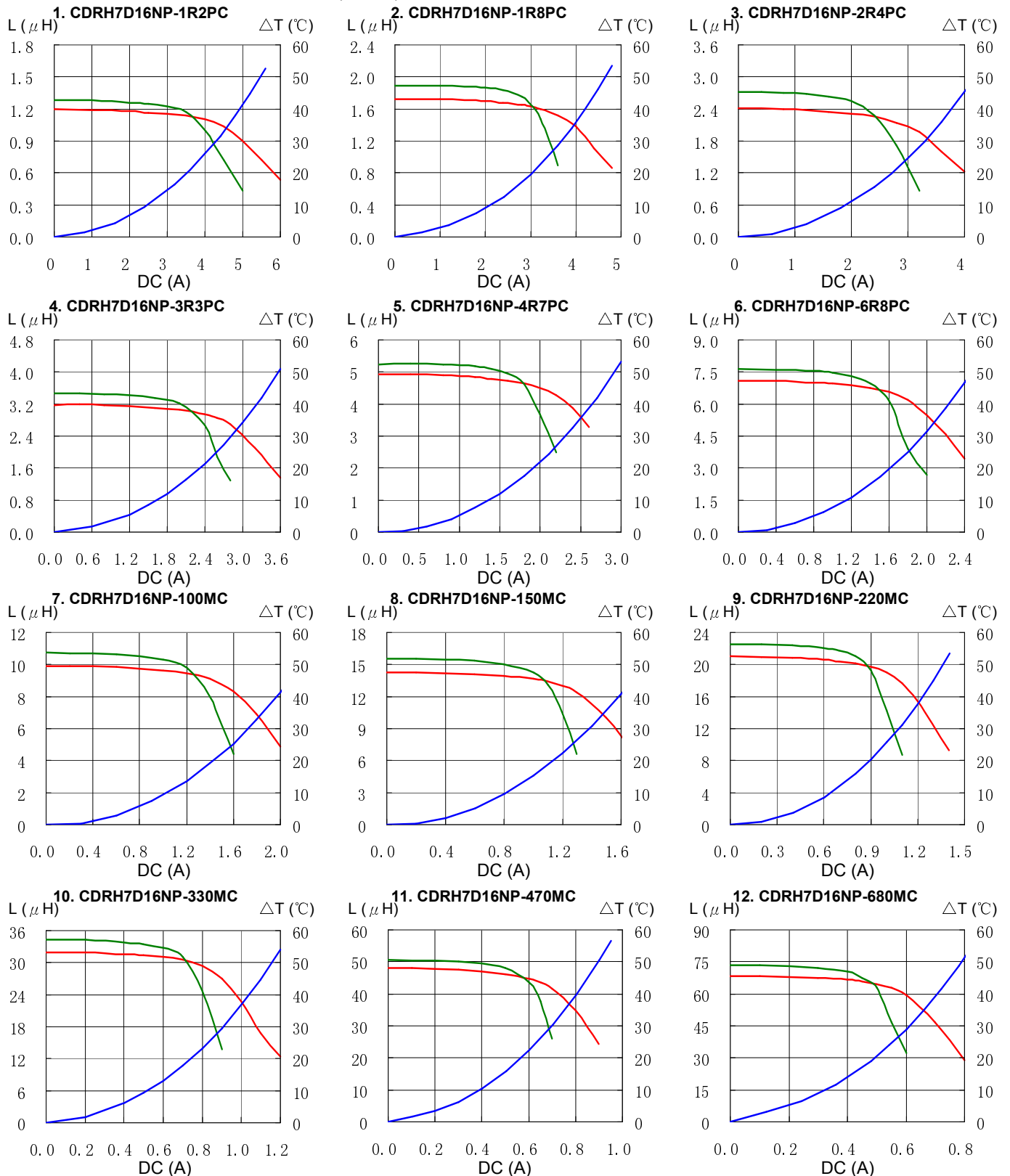
※3. Temperature rise current: The DC current at which the temperature rise is  $\Delta t=40^{\circ}\text{C}$ . ( $T_a=20^{\circ}\text{C}$ )

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## Saturation Current & Temperature Rise Graph

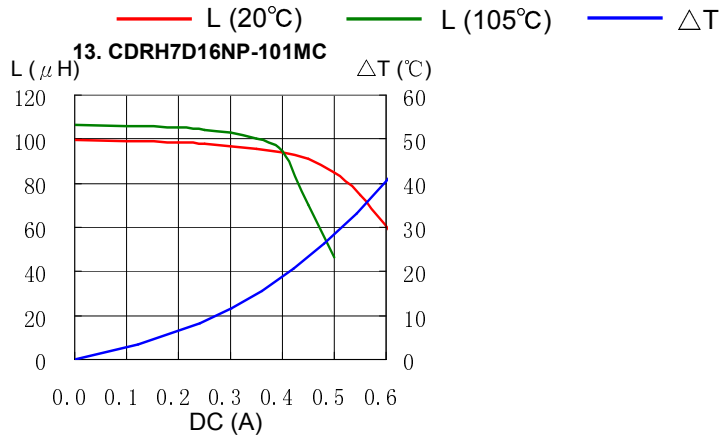
— L (20°C) — L (105°C) —  $\Delta T$



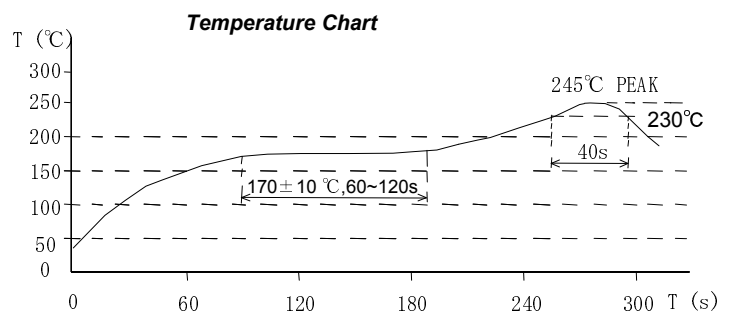
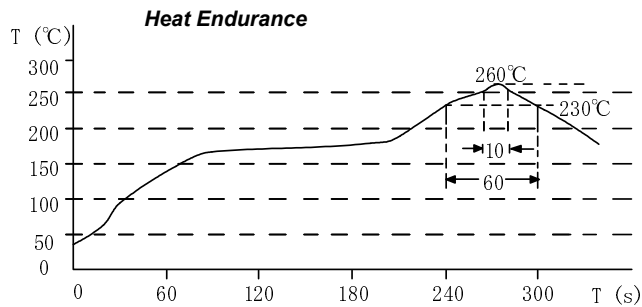
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## Saturation Current & Temperature Rise Graph



## Solder Reflow Condition



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

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