



**THE DATASHEET OF  
CDRH30D18SNP-2R2NC**



# SMD Power Inductor CDRH30D18/S



Halogen Free



## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 3.2 × 3.2 × 2.0 mm Max.
- Product weight: 64mg (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## 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.

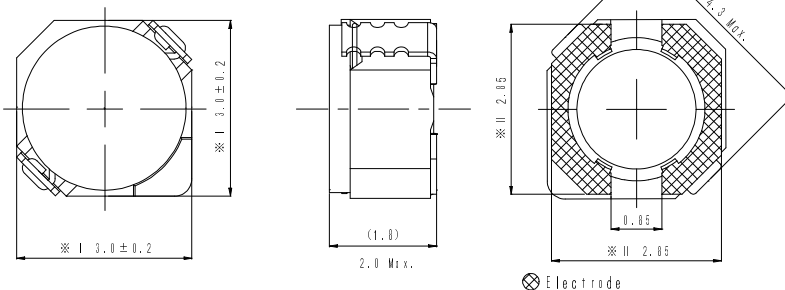
## Packaging

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

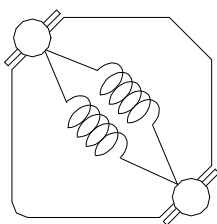
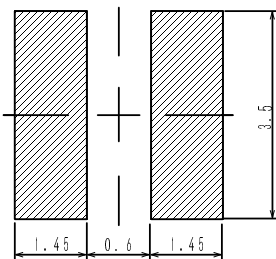
## Applications

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

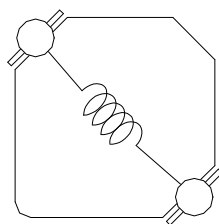
## Dimension - [mm]



## Land pattern and Schematics - [mm]



(0.8 μH ~ 3.3 μH)



(4.7 μH ~ 47 μH)

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## Electrical Characteristics

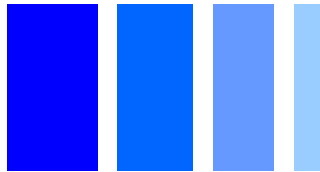
| Part Name          | Stamp | Inductance<br>( $\mu$ H)<br>[ within ] ※1 | D.C.R. (m $\Omega$ )<br>Max. (Typ.)<br>(at 20°C) | Saturation Current<br>(A) ※2 |          | Temperature<br>Rise Current<br>(A) ※3 |
|--------------------|-------|---|--|------------------------------|----------|---------------------------------------|
|                    |       |   |  | at 20°C                      | at 105°C |                                       |
| CDRH30D18SNP-0R8NC | A     | 0.8 $\pm$ 25%                             | 35.8(28.6)                                       | 2.80                         | 2.20     | 2.65                                  |
| CDRH30D18SNP-1R2NC | B     | 1.2 $\pm$ 25%                             | 42.4(33.9)                                       | 2.30                         | 1.80     | 2.30                                  |
| CDRH30D18SNP-1R5NC | C     | 1.5 $\pm$ 25%                             | 46.9(37.5)                                       | 2.10                         | 1.60     | 2.20                                  |
| CDRH30D18SNP-1R8NC | D     | 1.8 $\pm$ 25%                             | 60.0(48.0)                                       | 1.90                         | 1.45     | 1.85                                  |
| CDRH30D18SNP-2R2NC | E     | 2.2 $\pm$ 25%                             | 69.0(55.2)                                       | 1.80                         | 1.40     | 1.70                                  |
| CDRH30D18SNP-2R7NC | F     | 2.7 $\pm$ 25%                             | 85.3(68.2)                                       | 1.50                         | 1.20     | 1.50                                  |
| CDRH30D18SNP-3R3NC | G     | 3.3 $\pm$ 25%                             | 94.8(75.8)                                       | 1.45                         | 1.10     | 1.40                                  |
| CDRH30D18SNP-4R7NC | H     | 4.7 $\pm$ 25%                             | 149(119)   | 1.15                         | 0.90     | 1.15                                  |
| CDRH30D18SNP-5R6NC | I     | 5.6 $\pm$ 25%                             | 164(131)   | 1.05                         | 0.80     | 1.10                                  |
| CDRH30D18SNP-6R8NC | J     | 6.8 $\pm$ 25%                             | 196(157)   | 0.95                         | 0.72     | 1.00                                  |
| CDRH30D18SNP-8R2NC | K     | 8.2 $\pm$ 25%                             | 229(183)   | 0.90                         | 0.70     | 0.85                                  |
| CDRH30D18SNP-100NC | L     | 10.0 $\pm$ 25%                            | 276(221)   | 0.82                         | 0.62     | 0.76                                  |
| CDRH30D18SNP-150NC | M     | 15.0 $\pm$ 25%                            | 376(301)   | 0.65                         | 0.50     | 0.68                                  |
| CDRH30D18SNP-220NC | N     | 22.0 $\pm$ 25%                            | 610(488)   | 0.55                         | 0.42     | 0.48                                  |
| CDRH30D18SNP-330NC | O     | 33.0 $\pm$ 25%                            | 890(712)   | 0.45                         | 0.35     | 0.42                                  |
| CDRH30D18SNP-470NC | P     | 47.0 $\pm$ 25%                            | 1310(1050)                                       | 0.38                         | 0.29     | 0.34                                  |

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 65% of its nominal value.

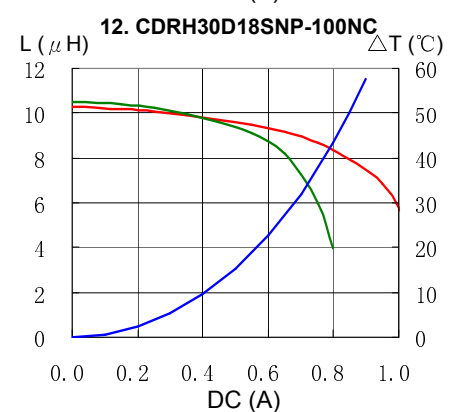
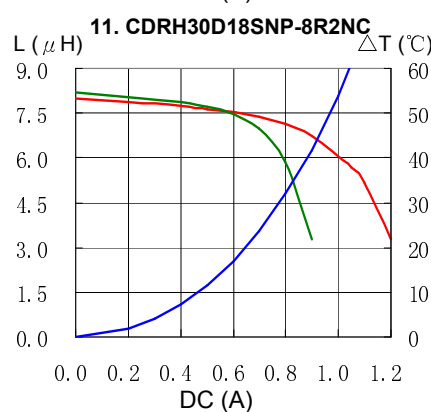
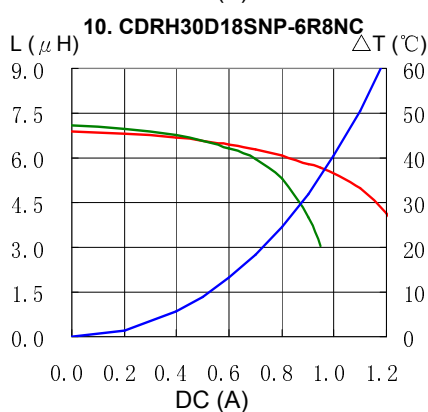
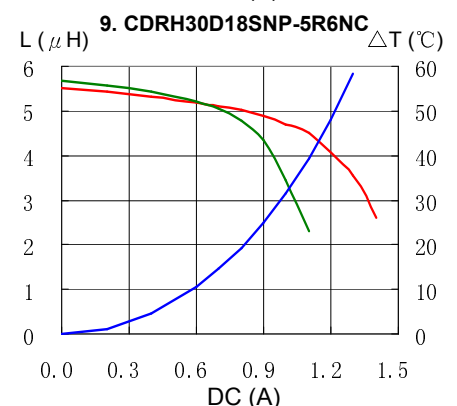
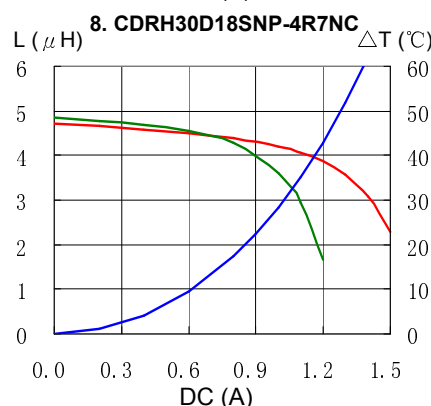
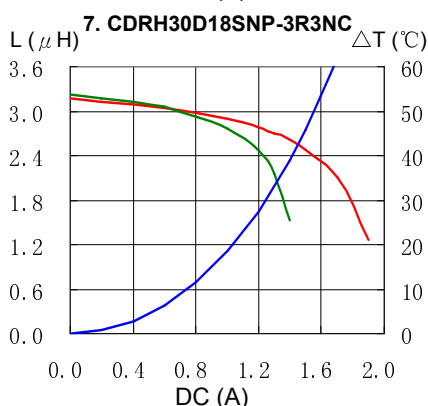
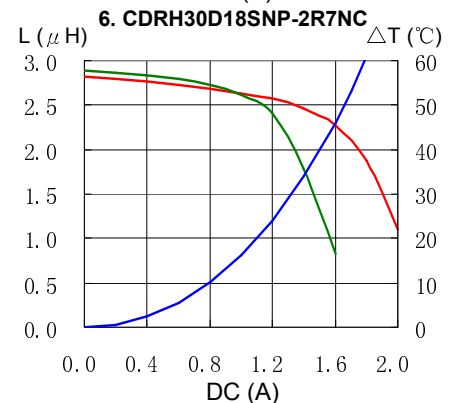
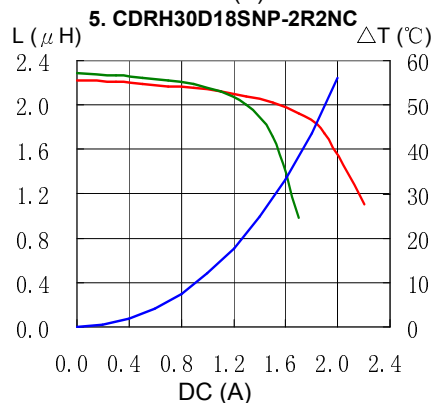
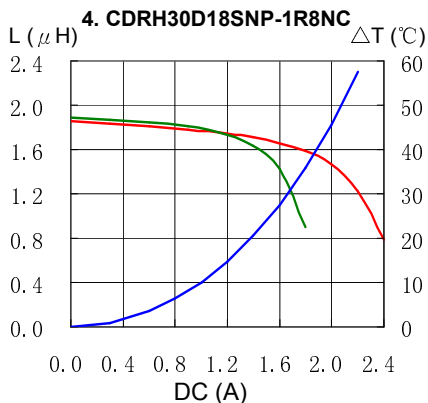
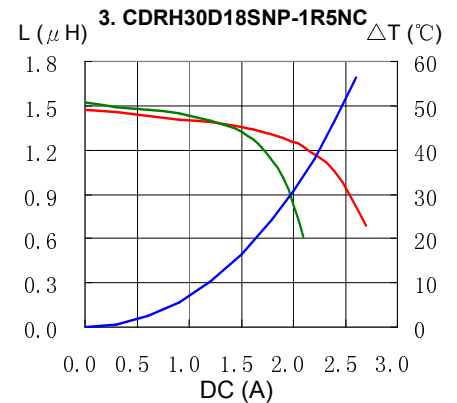
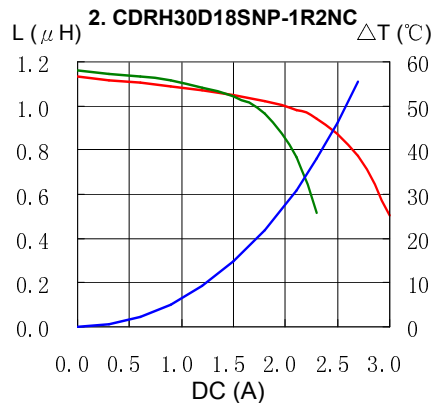
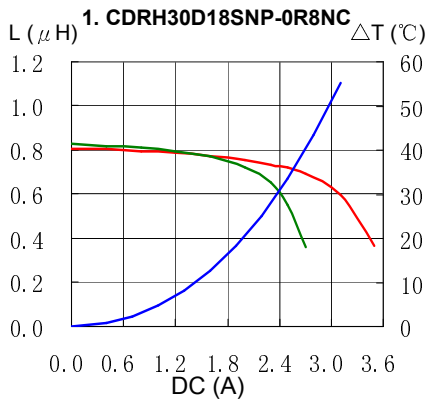
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

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## Saturation Current & Temperature Rise Graph

— L (20°C) — (105°C) —  $\Delta T$

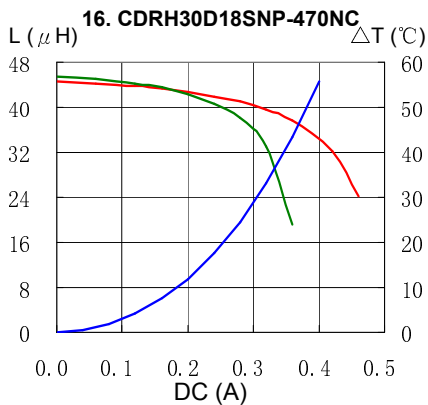
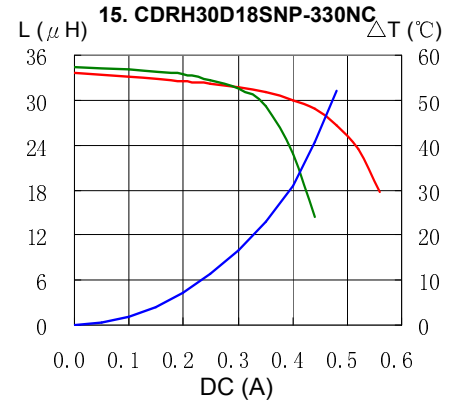
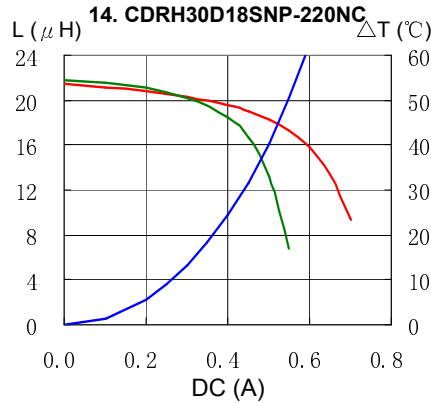
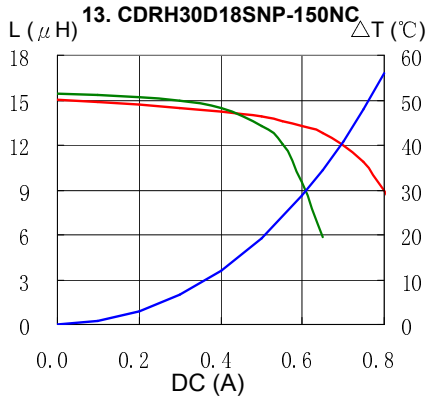


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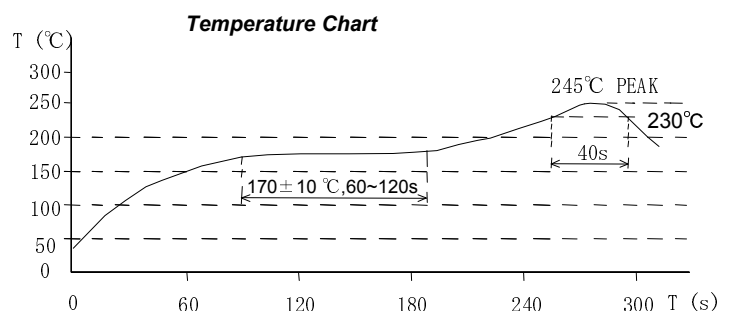
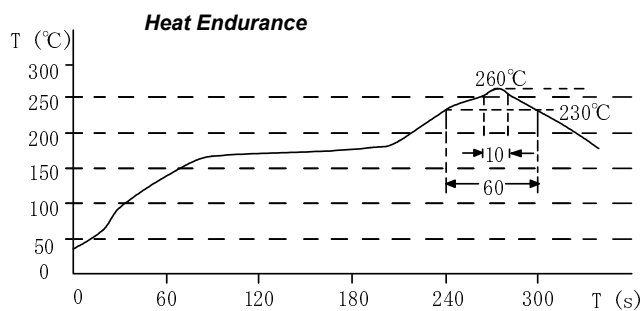


## Saturation Current & Temperature Rise Graph

— L (20°C) — (105°C) —  $\Delta T$



## Solder Reflow Condition



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**Hong Kong**  
Tel.+852-2880-6781  
FAX.+852-2565-9600  
[sales@hk.sumida.com](mailto:sales@hk.sumida.com)  
**Saitama(Japan)**  
Tel.+81-48-691-7300  
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Tel.+1-847-545-6700  
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**Shanghai**  
Tel.+86-21-5836-3299  
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[shanghai.sales@cn.sumida.com](mailto:shanghai.sales@cn.sumida.com)  
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FAX.+82-2-6237-0778  
[sales@kr.sumida.com](mailto:sales@kr.sumida.com)  
**Oberzell**  
Tel.+49-8591-937-0  
FAX. +49-8591-937-103  
[contact@eu.sumida.com](mailto:contact@eu.sumida.com)

**Shenzhen**  
Tel.+86-755-8291-0228  
FAX.+86-755-8291-0338  
[shenzhen.sales@cn.sumida.com](mailto:shenzhen.sales@cn.sumida.com)  
**Singapore**  
Tel.+65-6296-3388  
FAX.+65-6841-4426  
[sales@sg.sumida.com](mailto:sales@sg.sumida.com)  
**Neumarkt**  
Tel.+49-9181-4509-110  
FAX. +49-9181-4509-310  
[infocomp@eu.sumida.com](mailto:infocomp@eu.sumida.com)

**Taipei**  
Tel.+886-2-8751-2737  
FAX.+886-2-8751-2738  
[sales@tw.sumida.com](mailto:sales@tw.sumida.com)  
**San Jose**  
Tel.+1-408-321-9660  
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