



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



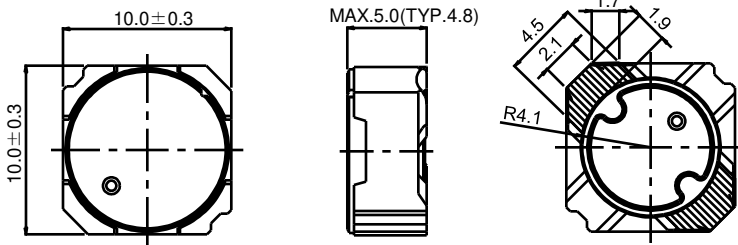
# SMD Power Inductor CDR10D48MN



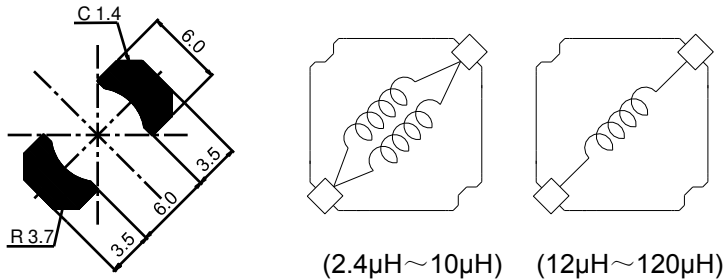
## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 10.3 × 10.3 × 5.0 mm Max.
- Product weight: 1.8g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## 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.
- 13.0" diameter reel
- 500pcs per reel

## Applications

- Ideally used in LCD Driver, DSC/DVC, Notebook PC etc as DC-DC converter inductors.



### Electrical Characteristics

| PART NAME          | STAMP | INDUCTANCE<br>[WITHIN] ※1 | D.C.R. (mΩ)<br>MAX.. (Typ.)<br>(at 20°C) | SATURATION CURRENT<br>( A ) ※2 |           | TEMPERATURE<br>RISE CURRENT<br>( A ) ※3 |
|--------------------|-------|---------------------------|--|--------------------------------|-----------|---|
|                    |       |                           |  | (at20°C)                       | (at105°C) |   |
| CDR10D48MNNP-2R4NC | 2R4   | 2.4μH±25%                 | 12.5(10.0)                               | 11.5                           | 9.2       | 9.6                                     |
| CDR10D48MNNP-3R6NC | 3R6   | 3.6μH±25%                 | 15.0(12.0)                               | 9.4                            | 7.7       | 8.2                                     |
| CDR10D48MNNP-5R0NC | 5R0   | 5.0μH±25%                 | 16.9(13.5)                               | 8.0                            | 6.5       | 6.8                                     |
| CDR10D48MNNP-6R6NC | 6R6   | 6.6μH±25%                 | 22.5(18.0)                               | 7.1                            | 5.7       | 5.7                                     |
| CDR10D48MNNP-8R5NC | 8R5   | 8.5μH±25%                 | 28.8(23.0)                               | 6.3                            | 5.1       | 4.8                                     |
| CDR10D48MNNP-100NC | 100   | 10μH±25%                  | 40.0(32.0)                               | 5.5                            | 4.4       | 4.3                                     |
| CDR10D48MNNP-120NC | 120   | 12μH±25%                  | 42.5(34.0)                               | 4.9                            | 4.1       | 3.6                                     |
| CDR10D48MNNP-150NC | 150   | 15μH±25%                  | 46.0(37.0)                               | 4.5                            | 3.6       | 3.4                                     |
| CDR10D48MNNP-180NC | 180   | 18μH±25%                  | 50.0(40.0)                               | 4.1                            | 3.4       | 3.2                                     |
| CDR10D48MNNP-220NC | 220   | 22μH±25%                  | 56.0(45.0)                               | 4.0                            | 3.2       | 2.8                                     |
| CDR10D48MNNP-270NC | 270   | 27μH±25%                  | 63.0(50.0)                               | 3.6                            | 2.9       | 2.7                                     |
| CDR10D48MNNP-330NC | 330   | 33μH±25%                  | 90.0(70.0)                               | 3.1                            | 2.5       | 2.1                                     |
| CDR10D48MNNP-390NC | 390   | 39μH±25%                  | 105.0(85.0)                              | 3.0                            | 2.4       | 1.9                                     |
| CDR10D48MNNP-470NC | 470   | 47μH±25%                  | 120.0(95.0)                              | 2.6                            | 2.1       | 1.8                                     |
| CDR10D48MNNP-560NC | 560   | 56μH±25%                  | 150.0(120)                               | 2.4                            | 2.0       | 1.6                                     |
| CDR10D48MNNP-680NC | 680   | 68μH±25%                  | 175.0(140)                               | 2.1                            | 1.8       | 1.5                                     |
| CDR10D48MNNP-820NC | 820   | 82μH±25%                  | 220.0(175)                               | 2.0                            | 1.6       | 1.3                                     |
| CDR10D48MNNP-101NC | 101   | 100μH±25%                 | 275.0(220)                               | 1.8                            | 1.5       | 1.1                                     |
| CDR10D48MNNP-121NC | 121   | 120μH±25%                 | 312.5(250)                               | 1.6                            | 1.3       | 1.0                                     |

※1. Measuring condition: at 100kHz.

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

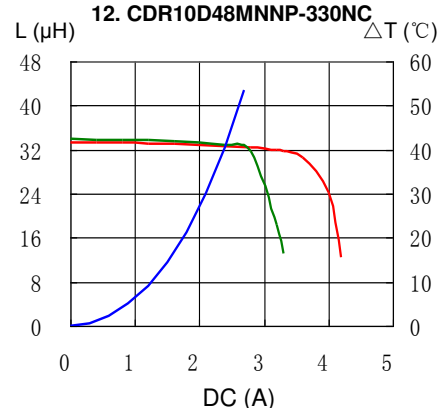
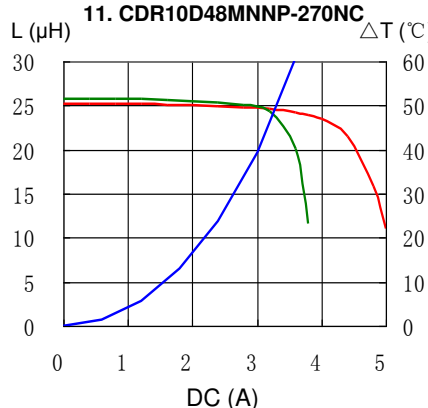
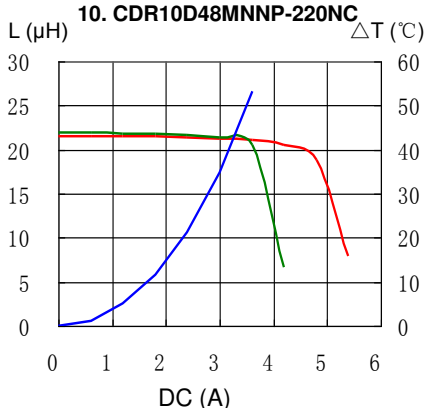
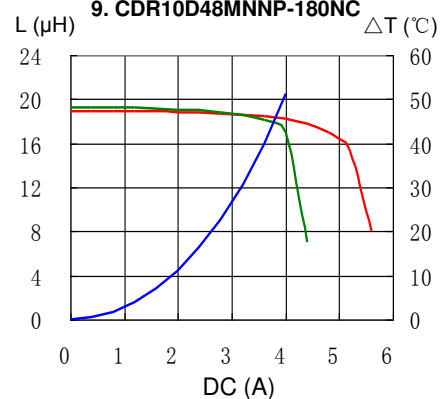
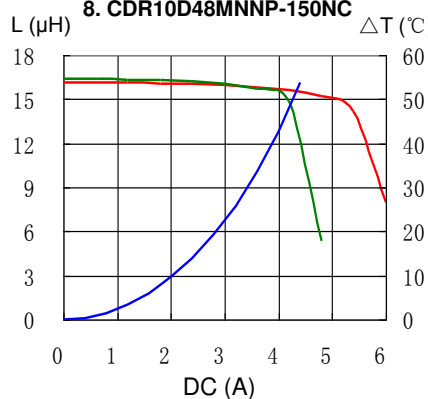
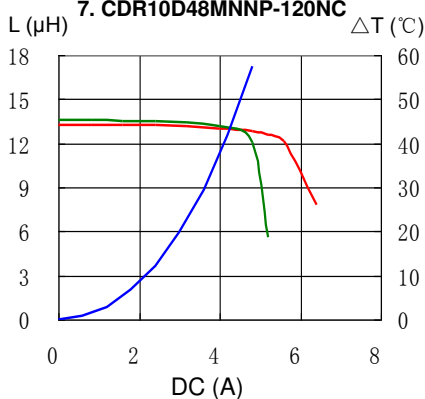
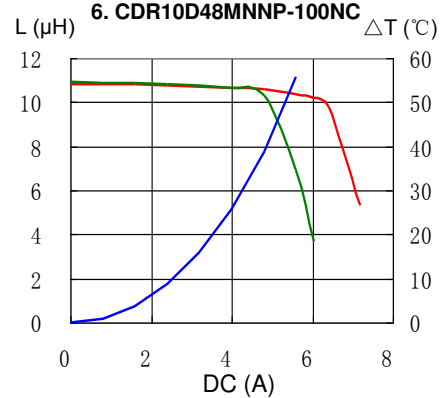
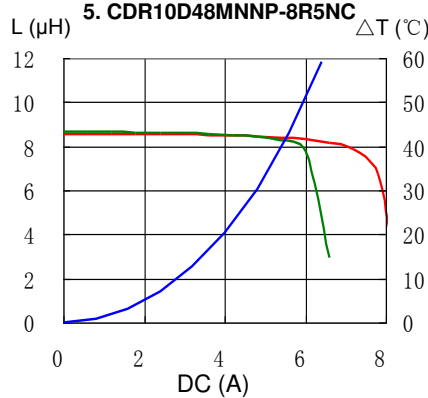
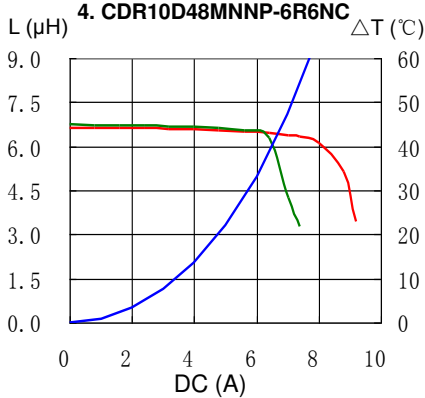
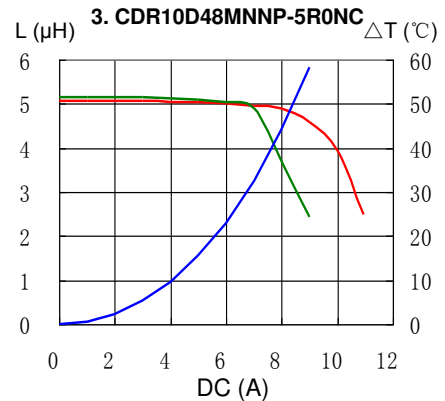
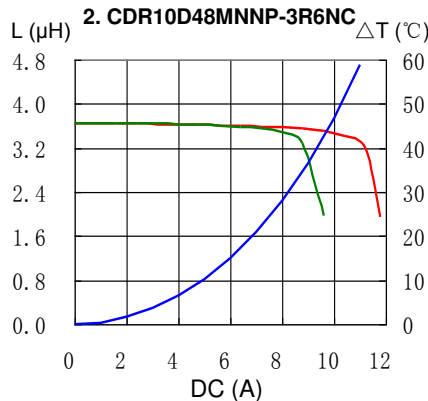
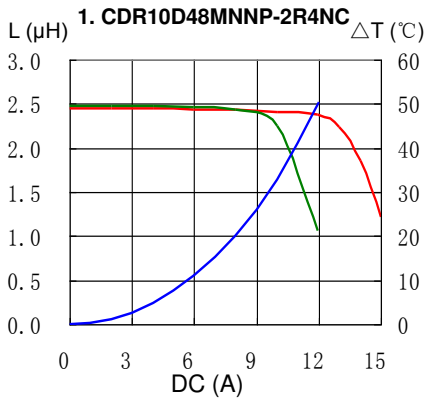
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

# SMD Power Inductor CDR10D48MN



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

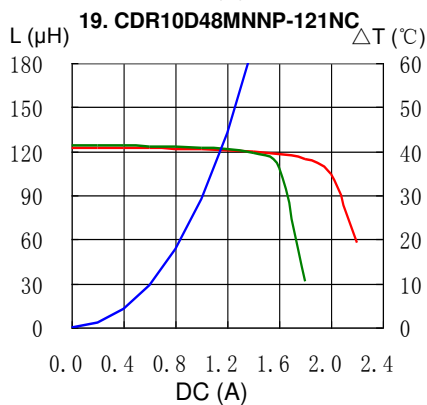
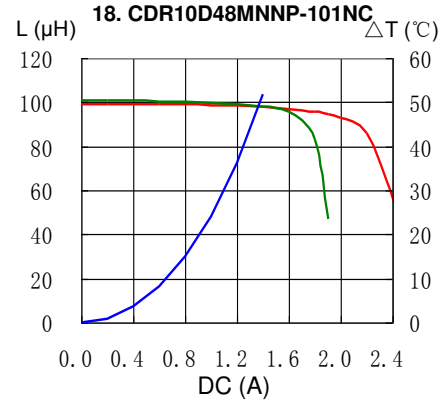
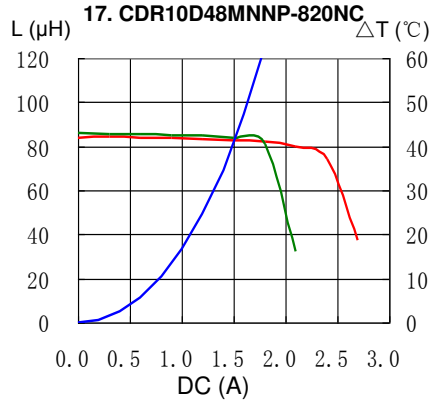
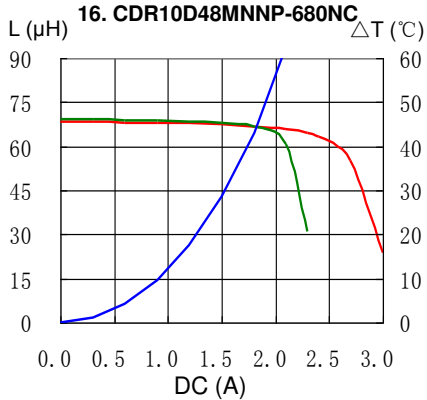
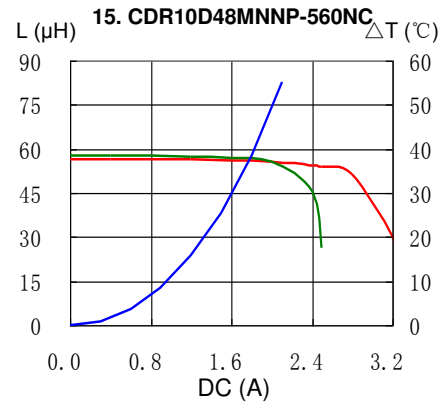
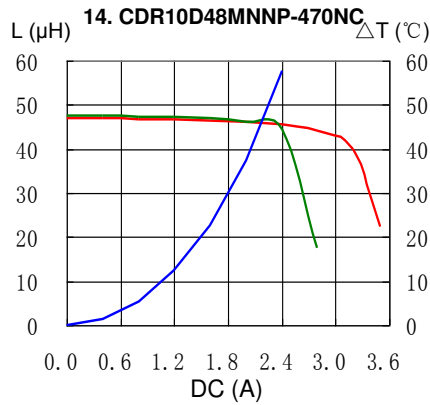
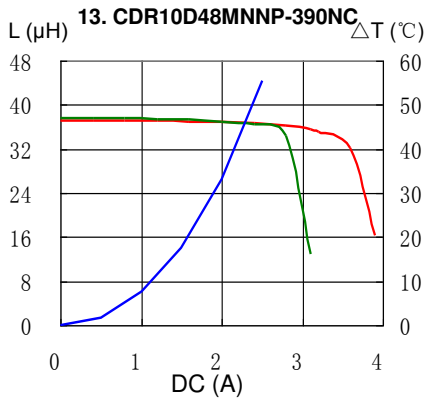


# SMD Power Inductor CDR10D48MN

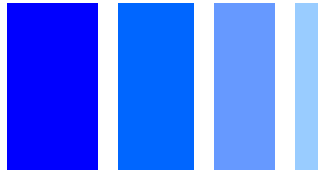


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

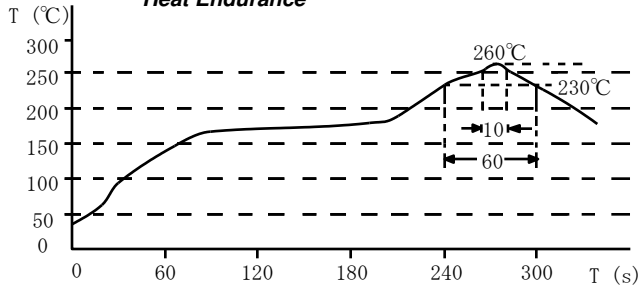


# SMD Power Inductor CDR10D48MN

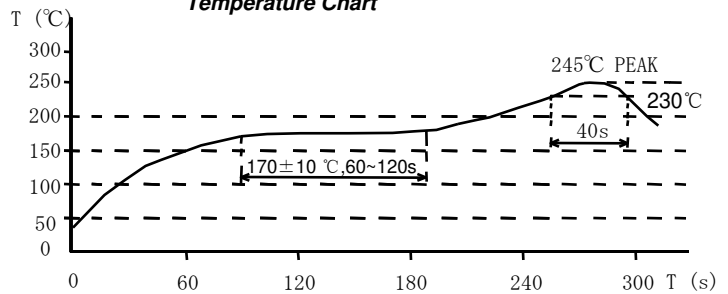


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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

### 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  
FAX. +81-48-691-7340  
[sales@jp.sumida.com](mailto:sales@jp.sumida.com)

### Chicago

Tel. +1-847-545-6700  
FAX. +1-847-545-6720  
[sales@us.sumida.com](mailto:sales@us.sumida.com)

### Shanghai

Tel. +86-21-5836-3299  
FAX. +86-21-5836-3266  
[shanghai.sales@cn.sumida.com](mailto:shanghai.sales@cn.sumida.com)

### Seoul

Tel. +82-2-6237-0777  
FAX. +82-2-6237-0778  
[sales@kr.sumida.com](mailto:sales@kr.sumida.com)

### Obernzell

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  
FAX. +1-408-321-9308  
[sales@us.sumida.com](mailto:sales@us.sumida.com)