

# SMD Power Inductor CDC90D48



## Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 9.7 × 9.3 × 5.0 mm Max.
- Product weight: 1.1 g(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.

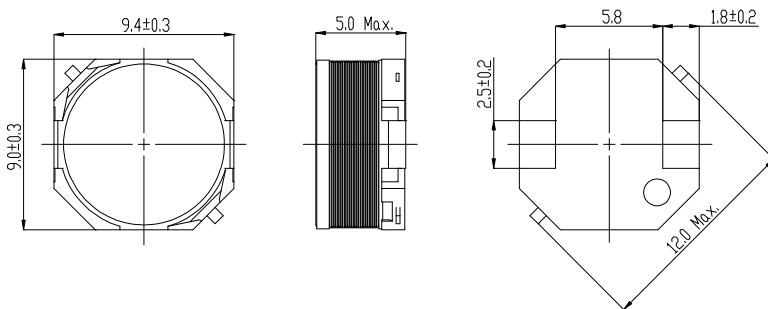
## Packaging

- Carrier tape and reel packaging.
- 13.0" diameter reel
- 500pcs per reel

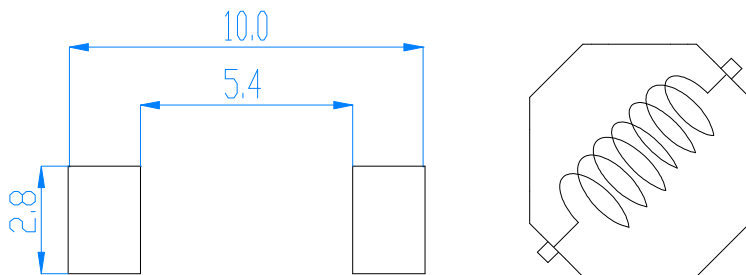
## Applications

- Ideally used in smoke alarm as DC-DC inverter inductors.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## Electrical Characteristics

Part No.	Stamp	Inductance [mH] [Within] ※1	D. C. R. (Ω) [Max. ] (Typ. ) (at 25°C)	Saturation current (mA) ※2 (at 20°C)	Temperature rise current (mA) ※3
CDC90D48NP-103MC	103M	$10 \pm 20\%$	38.2(31.8)	120	78
CDC90D48NP-123MC	123M	$12 \pm 20\%$	52.1(43.3)	104	68
CDC90D48NP-153MC	153M	$15 \pm 20\%$	62.0(51.6)	97	59
CDC90D48NP-183MC	183M	$18 \pm 20\%$	86.1(71.6)	86	42
CDC90D48NP-223MC	223M	$22 \pm 20\%$	99.4(82.8)	56	31

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of DC current when the inductance is over 90% of the initial value.

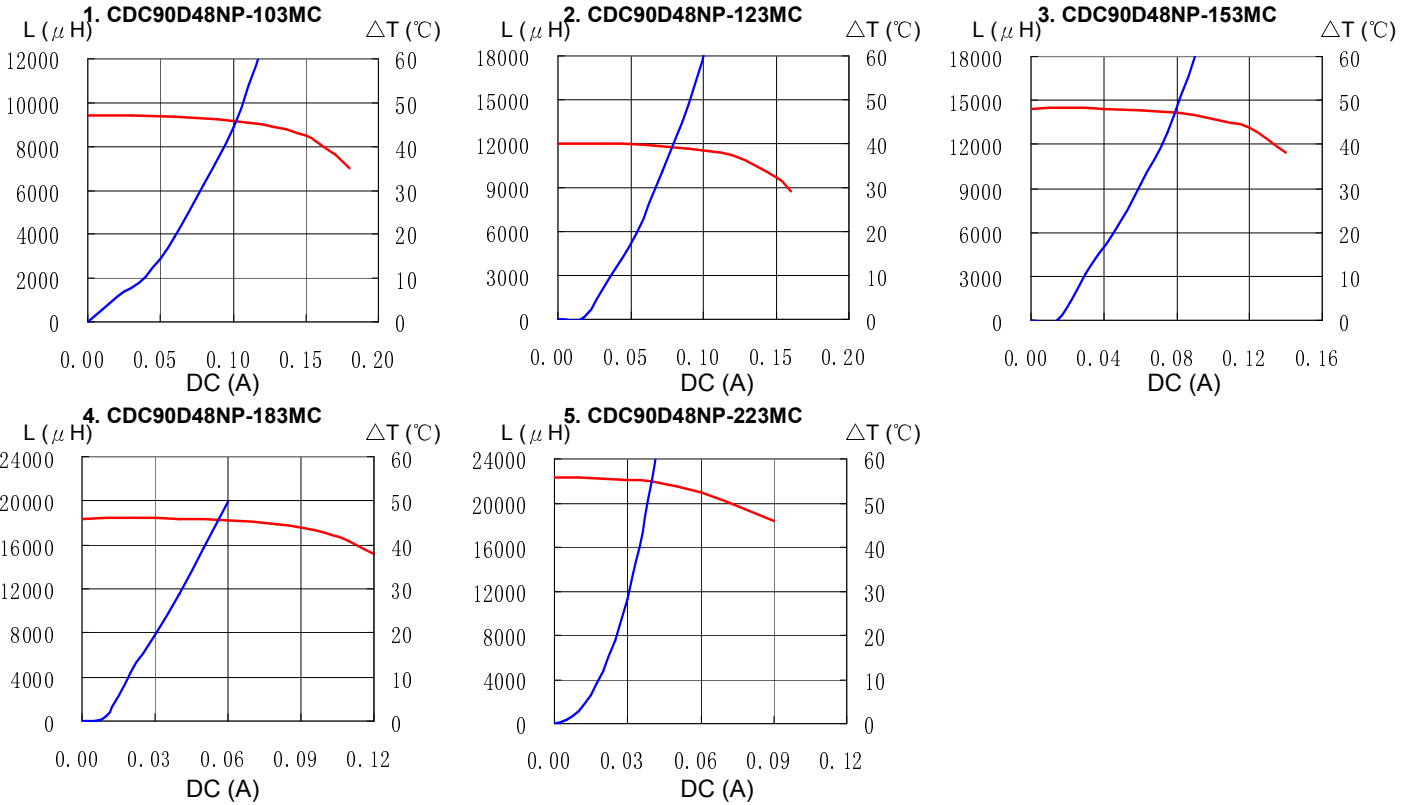
※3. Temperature rise current: The actual value of DC current when the temperature rise is  $\Delta T = 40^\circ\text{C}$  ( $T_a = 20^\circ\text{C}$ ).

# SMD Power Inductor CDC90D48

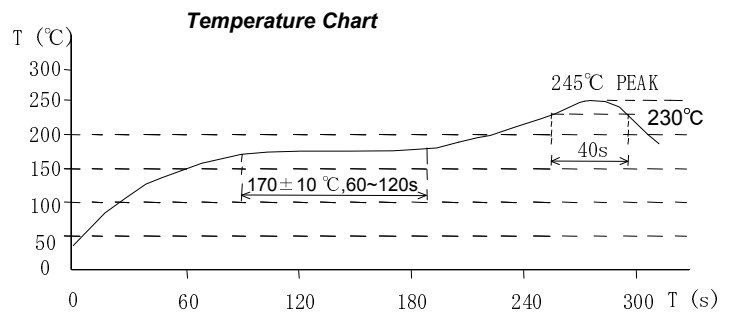
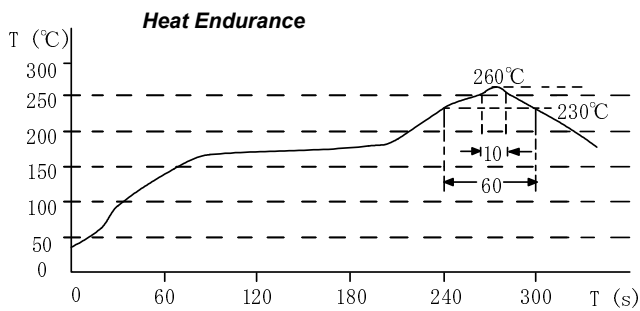


## Saturation Current & Temperature Rise Graph

— L (20°C) —  $\Delta T$



## Solder Reflow Condition



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

**Hong Kong**  
Tel.+852-2880-6688  
FAX.+852-2565-9600  
[sales@hk.sumida.com](mailto:sales@hk.sumida.com)

**Tokyo**  
Tel.+81-3-5202-7112  
FAX.+81-3-5202-7105  
[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.+86-021-5836-3299  
FAX.+86-021-5836-3266  
[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)

**Oberzell**  
Tel.+49-8591-937-0  
FAX. +49-8591-937-103  
[contact@sumida-eu.com](mailto:contact@sumida-eu.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.+65-6296-3390  
[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)