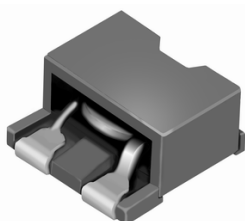


# SMD Power Inductor CDEP105



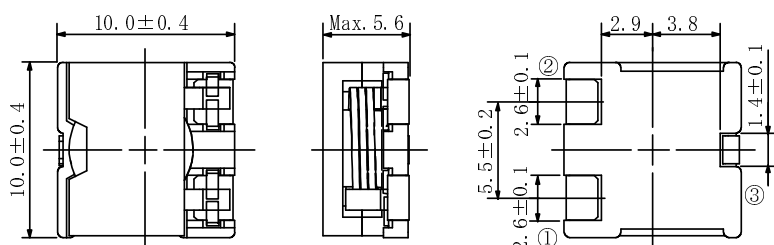
Halogen  
Free



## Description

- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 10.4 × 10.4 × 5.6 mm Max.
- Product weight: 1.5g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

## Dimension - [mm]



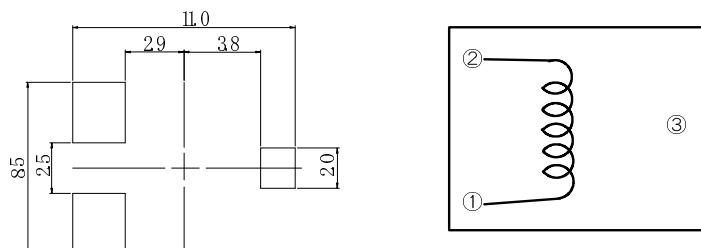
## Environmental Data

- Operating temperature range: -40°C~+125°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+125°C
- Solder reflow temperature: 260 °C peak.

## Packaging

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

## Land pattern and Schematics - [mm]



## Applications

- Ideally used in PC and other high current power supply.

## Electrical Characteristics<sup>1</sup> – Low D.C.R. Type

| PART NO.           | STAMP | INDUCTANCE<br>(μH) ※1 | D.C.R.. (mΩ)<br>[MAX.]<br>(at 20°C) | SATURATION<br>CURRENT (A) ※2 |            | TEMPERATURE<br>RISE CURRENT<br>(A) ※3<br>ΔT=40°C |
|--------------------|-------|-----------------------|-------------------------------------|------------------------------|------------|--------------------------------------------------|
|                    |       |                       |                                     | (at 20°C)                    | (at 100°C) |                                                  |
| CDEP105NP-0R3NC-88 | 0R3NL | 0.36 ± 30%            | 1.7(1.4)                            | 24.0                         | 20.0       | 19.0                                             |
| CDEP105NP-0R8MC-88 | 0R8ML | 0.8 ± 20%             | 2.4(2.0)                            | 16.0                         | 13.2       | 17.7                                             |
| CDEP105NP-1R4MC-88 | 1R4ML | 1.4 ± 20%             | 4.1(3.4)                            | 12.0                         | 10.0       | 13.0                                             |
| CDEP105NP-2R2MC-88 | 2R2ML | 2.2 ± 20%             | 5.3(4.4)                            | 9.6                          | 8.0        | 11.2                                             |
| CDEP105NP-3R2MC-88 | 3R2ML | 3.2 ± 20%             | 7.5(6.2)                            | 7.8                          | 6.6        | 9.0                                              |
| CDEP105NP-4R3MC-88 | 4R3ML | 4.3 ± 20%             | 10.5(8.7)                           | 6.8                          | 5.7        | 7.8                                              |
| CDEP105NP-5R7MC-88 | 5R7ML | 5.7 ± 20%             | 12.4(10.3)                          | 5.8                          | 4.9        | 7.4                                              |
| CDEP105NP-7R2MC-88 | 7R2ML | 7.2 ± 20%             | 18.0(15.0)                          | 5.3                          | 4.2        | 6.2                                              |
| CDEP105NP-8R8MC-88 | 8R8ML | 8.8 ± 20%             | 23.8(19.8)                          | 4.8                          | 4.0        | 4.9                                              |

# SMD Power Inductor CDEP105



## Electrical Characteristics2 – Standard Type

| PART NO.           | STAMP | INDUCTANCE<br>( $\mu$ H) ※1 | D.C.R. ( $m\Omega$ )<br>[MAX.]<br>(at 20°C) | SATURATION<br>CURRENT (A) ※2 |            | TEMPERATURE<br>RISE CURRENT<br>(A) ※3<br>$\Delta T=40^\circ\text{C}$ |
|--------------------|-------|-----------------------------|---------------------------------------------|------------------------------|------------|----------------------------------------------------------------------|
|                    |       |                             |                                             | (at 20°C)                    | (at 100°C) |                                                                      |
| CDEP105NP-0R2NC-50 | 0R2NS | $0.22 \pm 30\%$             | 1.7(1.4)                                    | 40.0                         | 30.9       | 19.0                                                                 |
| CDEP105NP-0R4MC-50 | 0R4MS | $0.45 \pm 20\%$             | 2.4(2.0)                                    | 26.4                         | 21.2       | 17.7                                                                 |
| CDEP105NP-0R8MC-50 | 0R8MS | $0.8 \pm 20\%$              | 4.1(3.4)                                    | 20.8                         | 16.7       | 13.0                                                                 |
| CDEP105NP-1R3MC-50 | 1R3MS | $1.3 \pm 20\%$              | 5.3(4.4)                                    | 16.8                         | 13.4       | 11.2                                                                 |
| CDEP105NP-1R8MC-50 | 1R8MS | $1.8 \pm 20\%$              | 7.5(6.2)                                    | 13.8                         | 11.0       | 9.0                                                                  |
| CDEP105NP-2R5MC-50 | 2R5MS | $2.5 \pm 20\%$              | 10.5(8.7)                                   | 11.8                         | 9.6        | 7.8                                                                  |
| CDEP105NP-3R2MC-50 | 3R2MS | $3.2 \pm 20\%$              | 12.4(10.3)                                  | 10.5                         | 8.4        | 7.4                                                                  |
| CDEP105NP-4R0MC-50 | 4R0MS | $4.0 \pm 20\%$              | 18.0(15.0)                                  | 9.3                          | 7.4        | 6.2                                                                  |
| CDEP105NP-5R0MC-50 | 5R0MS | $5.0 \pm 20\%$              | 23.8(19.8)                                  | 8.4                          | 6.7        | 4.9                                                                  |

## Electrical Characteristics3 – High Power Type

| PART NO.           | STAMP | INDUCTANCE<br>( $\mu$ H) ※1 | D.C.R. ( $m\Omega$ )<br>[MAX.]<br>(at 20°C) | SATURATION<br>CURRENT (A) ※2 |            | TEMPERATURE<br>RISE CURRENT<br>(A) ※3<br>$\Delta T=40^\circ\text{C}$ |
|--------------------|-------|-----------------------------|---------------------------------------------|------------------------------|------------|----------------------------------------------------------------------|
|                    |       |                             |                                             | (at 20°C)                    | (at 100°C) |                                                                      |
| CDEP105NP-0R1NC-32 | 0R1NH | $0.15 \pm 30\%$             | 1.7(1.4)                                    | 55.0                         | 46.0       | 19.0                                                                 |
| CDEP105NP-0R3NC-32 | 0R3NH | $0.3 \pm 30\%$              | 2.4(2.0)                                    | 40.0                         | 33.0       | 17.7                                                                 |
| CDEP105NP-0R5MC-32 | 0R5MH | $0.5 \pm 20\%$              | 4.1(3.4)                                    | 30.4                         | 25.0       | 13.0                                                                 |
| CDEP105NP-0R8MC-32 | 0R8MH | $0.8 \pm 20\%$              | 5.3(4.4)                                    | 25.2                         | 20.7       | 11.2                                                                 |
| CDEP105NP-1R2MC-32 | 1R2MH | $1.2 \pm 20\%$              | 7.5(6.2)                                    | 21.0                         | 17.4       | 9.0                                                                  |
| CDEP105NP-1R5MC-32 | 1R5MH | $1.5 \pm 20\%$              | 10.5(8.7)                                   | 18.0                         | 15.0       | 7.8                                                                  |
| CDEP105NP-2R0MC-32 | 2R0MH | $2.0 \pm 20\%$              | 12.4(10.3)                                  | 15.8                         | 13.1       | 7.4                                                                  |
| CDEP105NP-2R5MC-32 | 2R5MH | $2.5 \pm 20\%$              | 18.0(15.0)                                  | 14.0                         | 11.7       | 6.2                                                                  |
| CDEP105NP-3R0MC-32 | 3R0MH | $3.0 \pm 20\%$              | 23.8(19.8)                                  | 12.6                         | 10.5       | 4.9                                                                  |

※1. Measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 65% (while the tolerance is  $\pm 30\%$ ) or 75% (while the tolerance is  $\pm 20\%$ ) of its nominal.

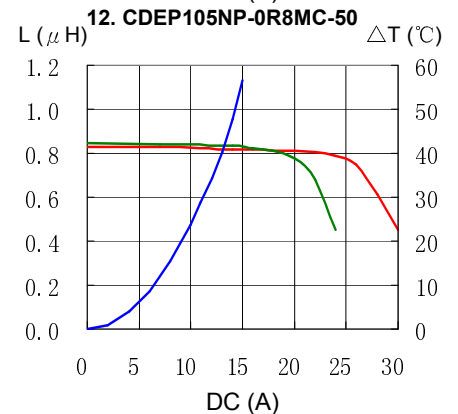
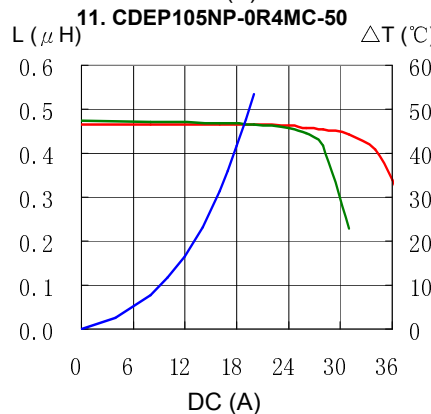
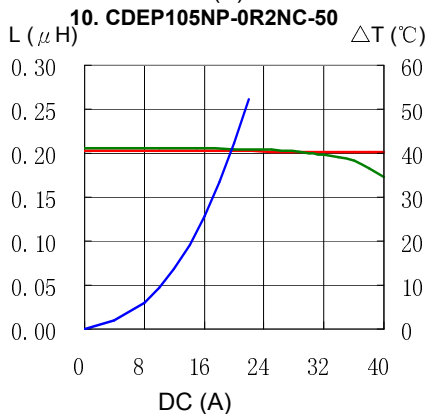
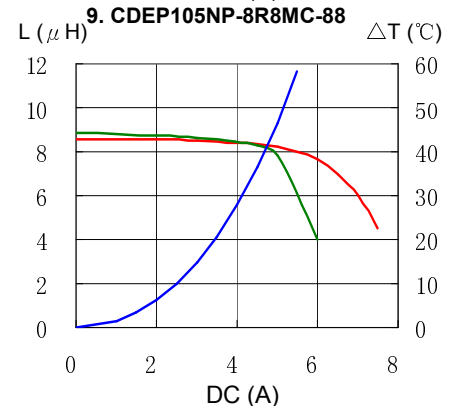
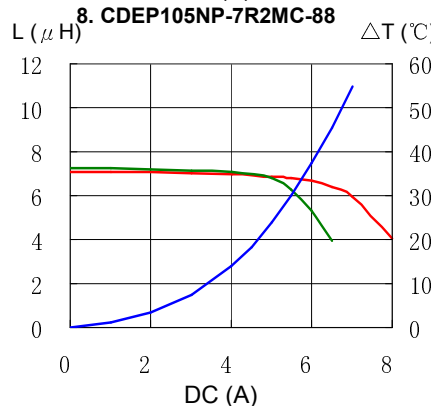
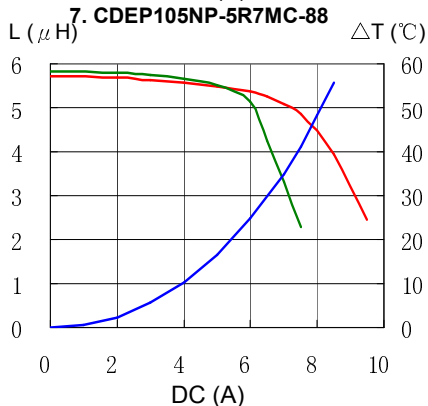
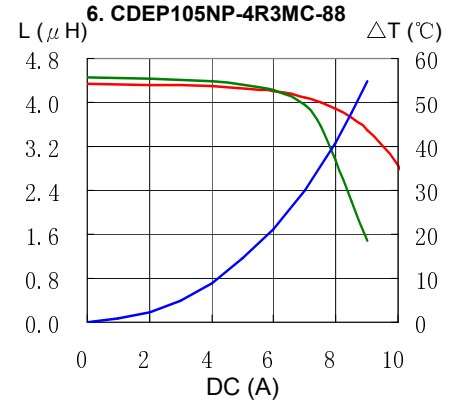
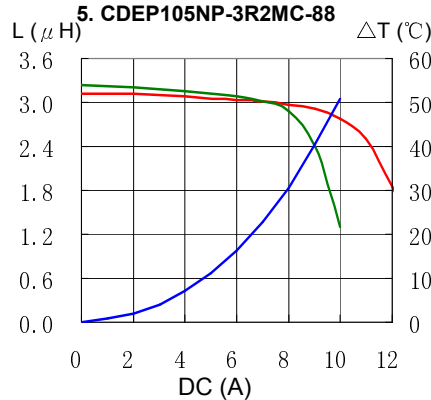
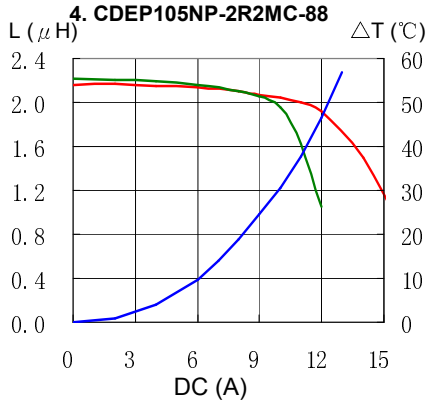
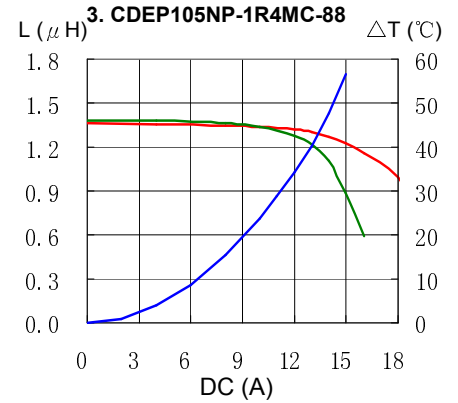
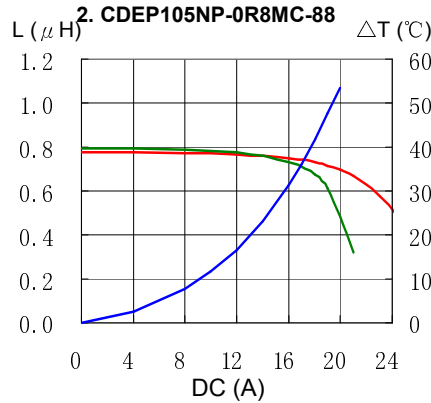
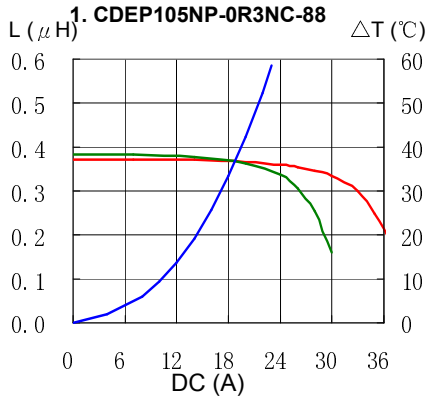
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^\circ\text{C}$  ( $T_a=20^\circ\text{C}$ ).

# SMD Power Inductor CDEP105



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$



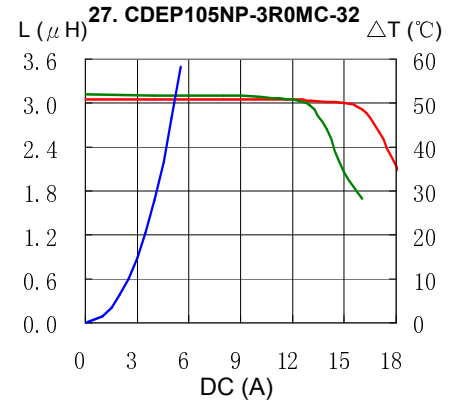
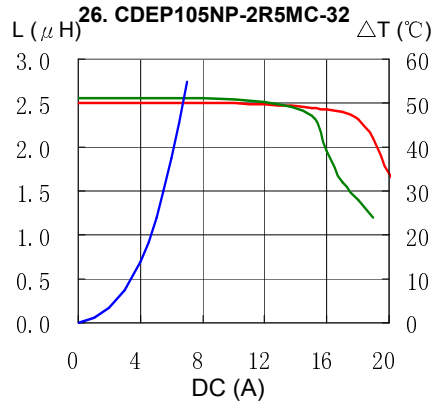
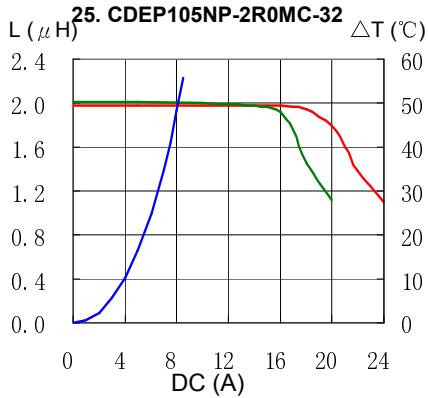


# SMD Power Inductor CDEP105

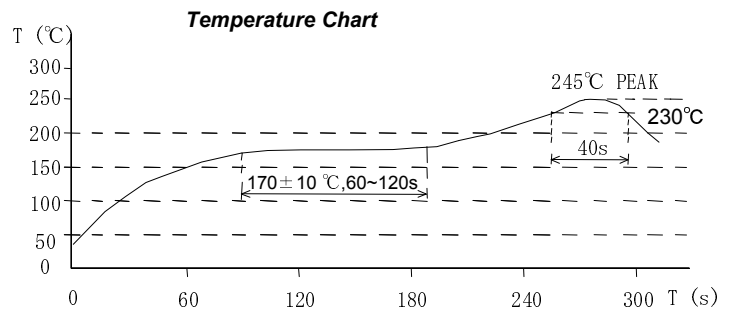
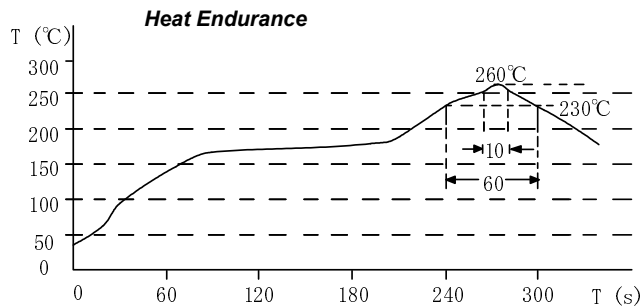


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°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)  
**Obernzell**  
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  
[info@comp@eu.sumida.com](mailto:info@comp@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)



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.