

SMD Power Inductor CDEP1711



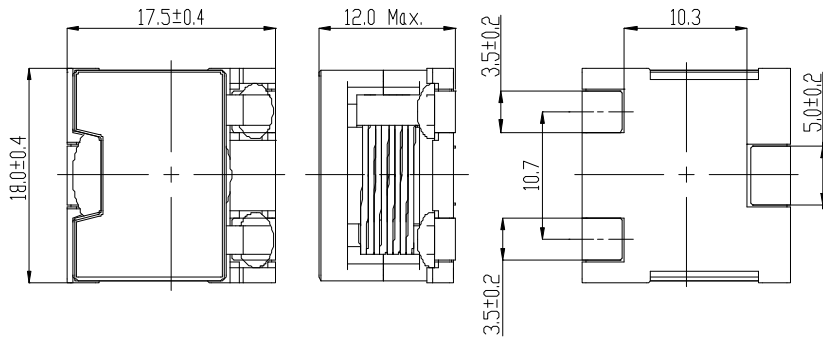
Halogen
Free



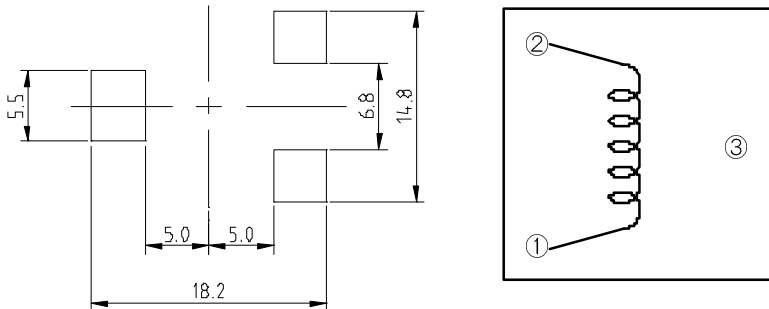
Description

- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 18.4 × 17.9 × 12.0 mm Max.
- Product weight: 11.4g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

Dimension - [mm]



Land pattern and Schematics - [mm]



Environmental Data

- Operating temperature range: -40°C~+125°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
- 100pcs per reel

Applications

- Ideally used in amusement equipment, base station and other high current application.

Electrical Characteristics- 1

| Part No. | Stamp | Inductance (μ H) [Within] ※1 | D.C.R. (m Ω) [Max.] (at 20°C) ※2 | Saturation current(A) ※3 | | Temperature rise current (A)※4 |
|----------------------------------|-------|--------------------------------------|--|-----------------------------|----------|--------------------------------------|
| | | | | at 20°C | at 105°C | |
| CDEP1711NP-22 \emptyset MC-325 | 220ML | 22 \pm 20% | 5.52(4.6) | 5.6 | 4.4 | 15.3 |
| CDEP1711NP-27 \emptyset MC-325 | 270ML | 27 \pm 20% | 6.12(5.1) | 5.2 | 4.2 | 14.5 |
| CDEP1711NP-33 \emptyset MC-325 | 330ML | 33 \pm 20% | 7.44(6.2) | 4.8 | 3.8 | 12.0 |
| CDEP1711NP-39 \emptyset MC-325 | 390ML | 39 \pm 20% | 10.3(8.6) | 4.3 | 3.4 | 10.0 |
| CDEP1711NP-47 \emptyset MC-325 | 470ML | 47 \pm 20% | 11.3(9.4) | 4.0 | 3.1 | 9.5 |

Electrical Characteristics- 2

| Part No. | Stamp | Inductance (μ H) [Within] ※1 | D.C.R.(m Ω) [Max.] (at 20°C) ※2 | Saturation current (A)※3 | | Temperature rise current (A)※4 |
|---|-------|--------------------------------------|---|-----------------------------|----------|--------------------------------------|
| | | | | at 20°C | at 105°C | |
| CDEP1711NP-1 \emptyset MC-15 \emptyset | 100MS | 10 \pm 20% | 5.52(4.6) | 13.2 | 10.4 | 15.3 |
| CDEP1711NP-12 \emptyset MC-15 \emptyset | 120MS | 12 \pm 20% | 6.12(5.1) | 11.6 | 9.0 | 14.5 |
| CDEP1711NP-15 \emptyset MC-15 \emptyset | 150MS | 15 \pm 20% | 7.44(6.2) | 10.5 | 7.8 | 12.0 |
| CDEP1711NP-18 \emptyset MC-15 \emptyset | 180MS | 18 \pm 20% | 10.3(8.6) | 9.6 | 7.4 | 10.0 |
| CDEP1711NP-22 \emptyset MC-15 \emptyset | 220MS | 22 \pm 20% | 11.3(9.4) | 8.8 | 6.8 | 9.5 |

Electrical Characteristics- 3

| Part No. | Stamp | Inductance (μ H) [Within] ※1 | D.C.R. (m Ω) [Max.] (at 20°C) ※2 | Saturation current (A) ※3 | | Temperature rise current (A) ※4 |
|----------------------------------|-------|--------------------------------------|--|------------------------------|----------|---------------------------------------|
| | | | | at 20°C | at 105°C | |
| CDEP1711NP-8R \emptyset MC-125 | 8R0MH | 8.0 \pm 20% | 5.52(4.6) | 16.8 | 13.2 | 15.3 |
| CDEP1711NP-1 \emptyset MC-125 | 100MH | 10 \pm 20% | 6.12(5.1) | 14.4 | 11.2 | 14.5 |
| CDEP1711NP-12 \emptyset MC-125 | 120MH | 12 \pm 20% | 7.44(6.2) | 13.2 | 10.4 | 12.0 |
| CDEP1711NP-15 \emptyset MC-125 | 150MH | 15 \pm 20% | 10.3(8.6) | 12.0 | 9.2 | 10.0 |
| CDEP1711NP-18 \emptyset MC-125 | 180MH | 18 \pm 20% | 11.3(9.4) | 10.8 | 8.4 | 9.5 |

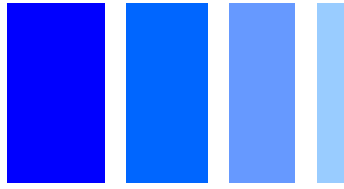
※ 1 Measuring frequency inductance at 100kHz .

※ 2 () are typical value.

※ 2 Saturation current: The DC current at which the inductance decreases to 75% of its nominal value.

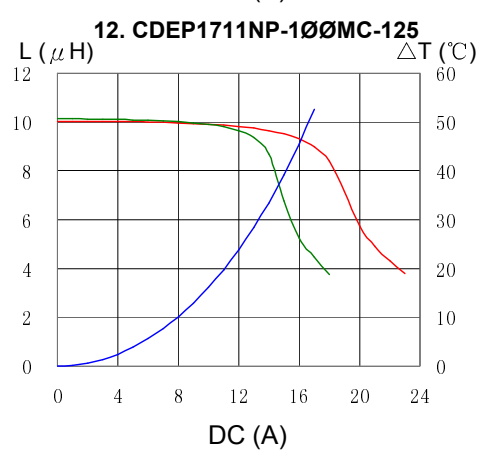
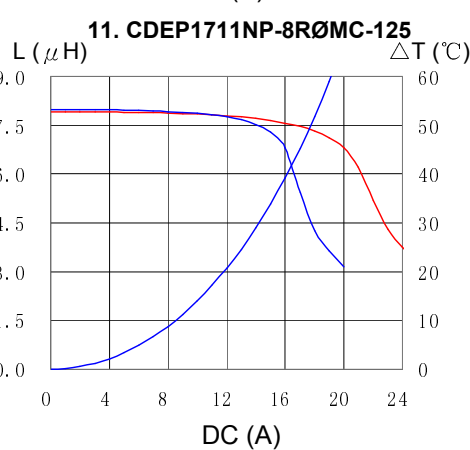
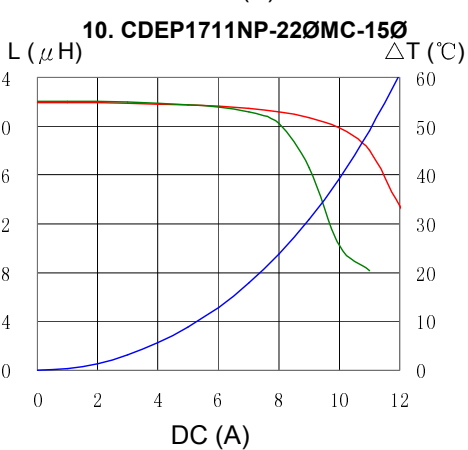
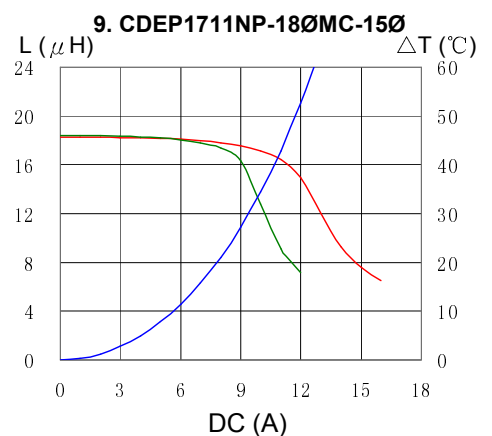
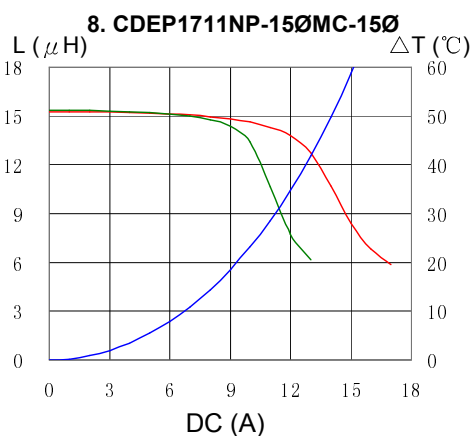
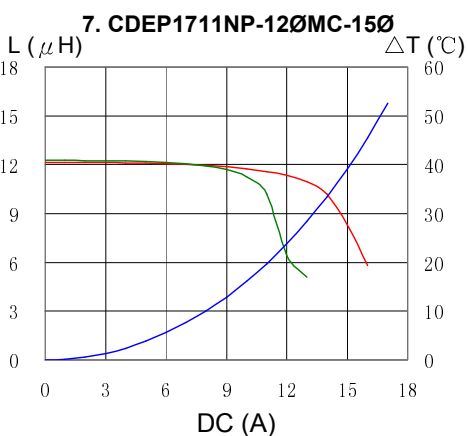
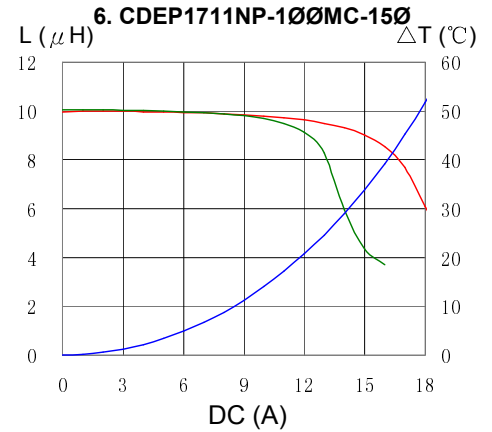
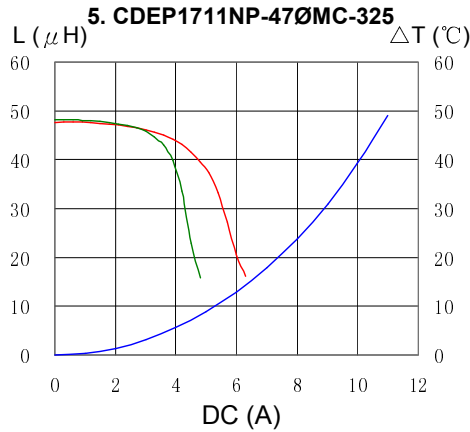
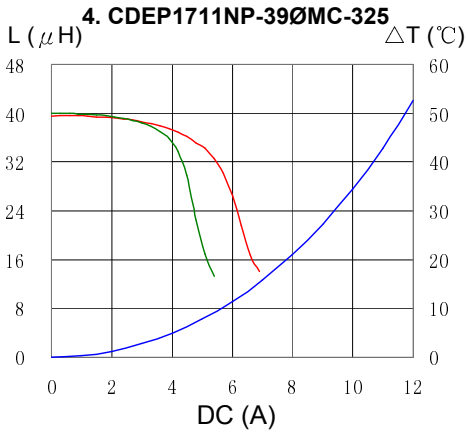
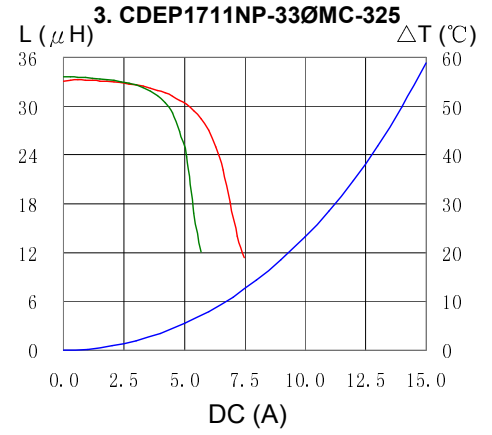
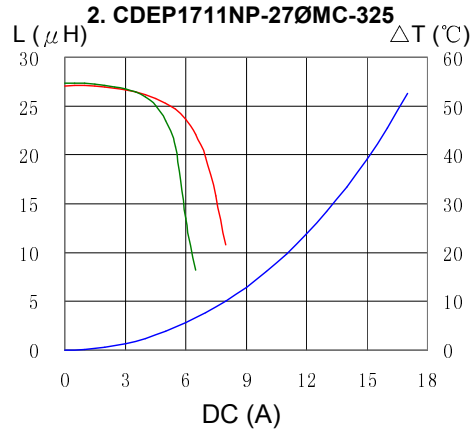
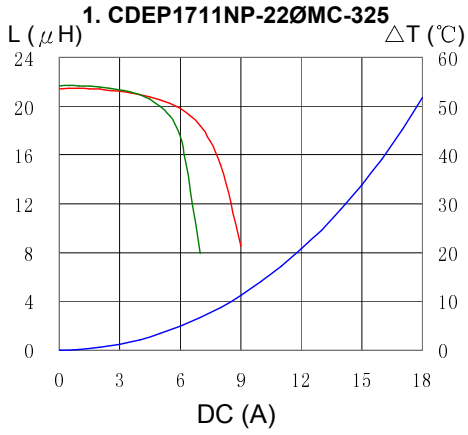
※3 Temperature rise current: The DC current at which the temperature rise is $\Delta t=40^{\circ}\text{C}$. ($T_a=20^{\circ}\text{C}$)

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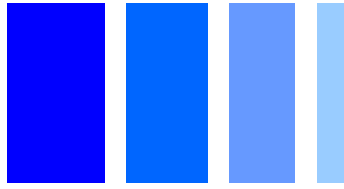


Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) — ΔT

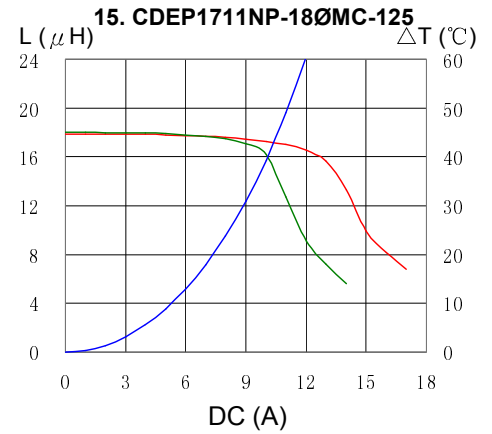
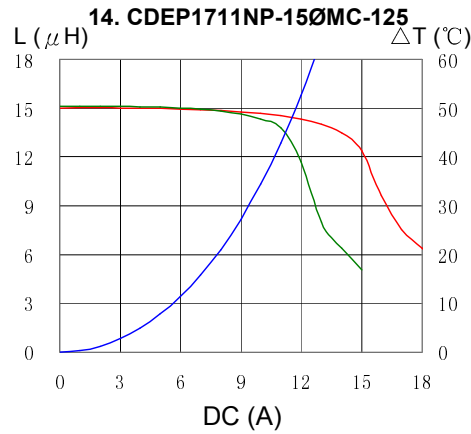
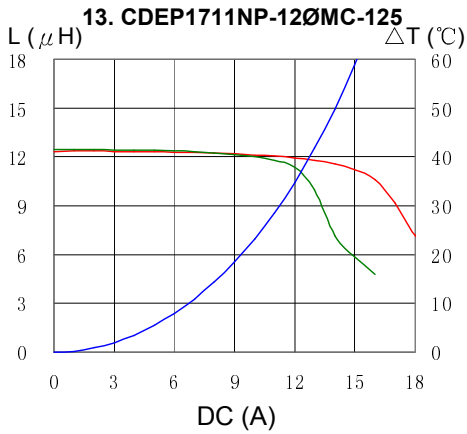


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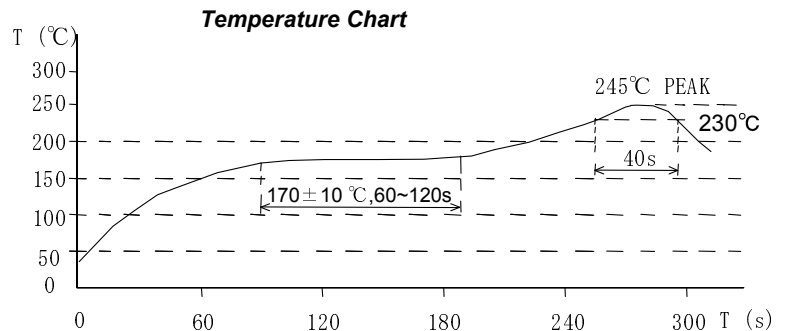
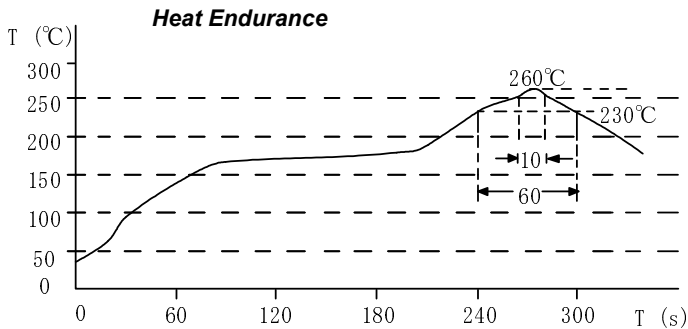


Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) — ΔT



Solder Reflow Condition



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