



**THE DATASHEET OF
CD105NP-220MC**



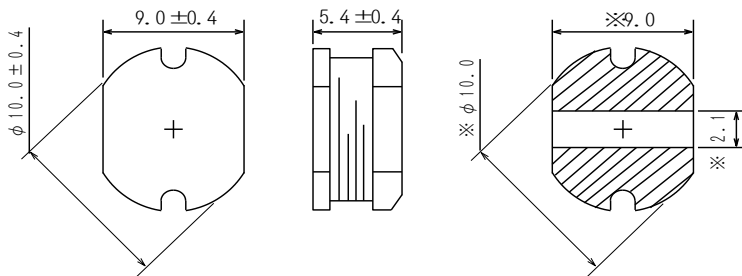
SMD Power Inductor CD105



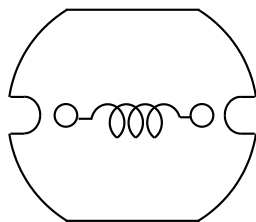
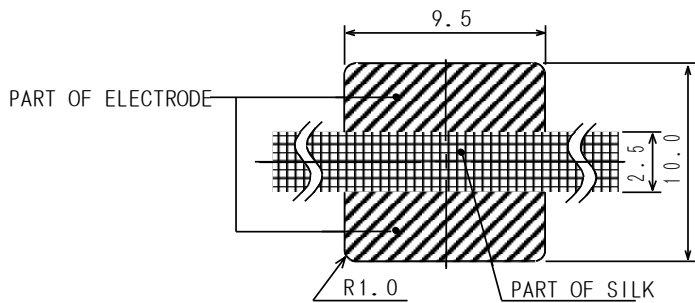
Description

- Ferrite core construction.
- Magnetically unshielded.
- L × W × H: 10.4 × 9.4 × 5.8mm Max.
- Product weight: 1.3 g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

Dimension - [mm]



Land pattern and Schematics - [mm]



Environmental Data

- Operating temperature range: -40°C ~ +100°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +100°C
- Solder reflow temperature: 260 °C peak.

Packaging

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

Applications

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



Electrical Characteristics

| Part Name | Inductance (μH) [Within] ※1 | D.C.R. (Ω) [MAX.] (at 20°C) | Rated Current (A) ※2 |
|---------------|---|---|-------------------------|
| CD105NP-100MC | 10 \pm 20% | 0.06 | 2.60 |
| CD105NP-120MC | 12 \pm 20% | 0.07 | 2.45 |
| CD105NP-150MC | 15 \pm 20% | 0.08 | 2.27 |
| CD105NP-180MC | 18 \pm 20% | 0.09 | 2.15 |
| CD105NP-220MC | 22 \pm 20% | 0.10 | 1.95 |
| CD105NP-270MC | 27 \pm 20% | 0.11 | 1.76 |
| CD105NP-330MC | 33 \pm 20% | 0.12 | 1.50 |
| CD105NP-390MC | 39 \pm 20% | 0.14 | 1.37 |
| CD105NP-470KC | 47 \pm 10% | 0.17 | 1.28 |
| CD105NP-560KC | 56 \pm 10% | 0.19 | 1.17 |
| CD105NP-680KC | 68 \pm 10% | 0.22 | 1.11 |
| CD105NP-820KC | 82 \pm 10% | 0.25 | 1.00 |
| CD105NP-101KC | 100 \pm 10% | 0.35 | 0.97 |
| CD105NP-121KC | 120 \pm 10% | 0.40 | 0.89 |
| CD105NP-151KC | 150 \pm 10% | 0.47 | 0.78 |
| CD105NP-181KC | 180 \pm 10% | 0.63 | 0.72 |
| CD105NP-221KC | 220 \pm 10% | 0.73 | 0.66 |
| CD105NP-271KC | 270 \pm 10% | 0.97 | 0.57 |
| CD105NP-331KC | 330 \pm 10% | 1.15 | 0.52 |
| CD105NP-391KC | 390 \pm 10% | 1.30 | 0.48 |
| CD105NP-471KC | 470 \pm 10% | 1.48 | 0.42 |
| CD105NP-561KC | 560 \pm 10% | 1.90 | 0.33 |
| CD105NP-681KC | 680 \pm 10% | 2.25 | 0.28 |
| CD105NP-821KC | 820 \pm 10% | 2.55 | 0.24 |

※1: Inductance measuring frequency: 10 μH ~ 82 μH ; at 2.52MHz.
100 μH ~ 820 μH ; at 1kHz.

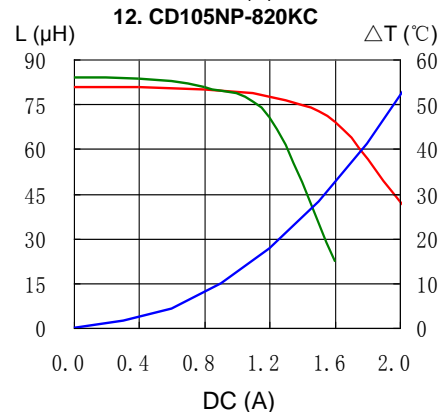
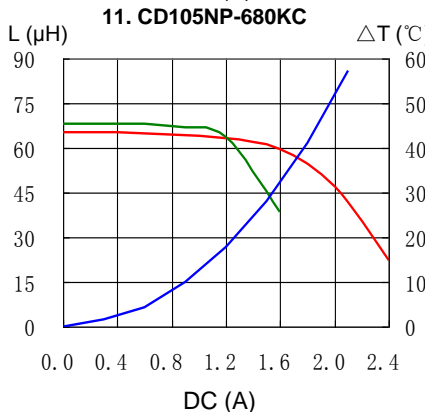
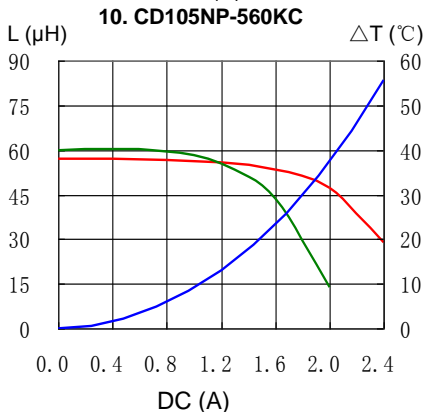
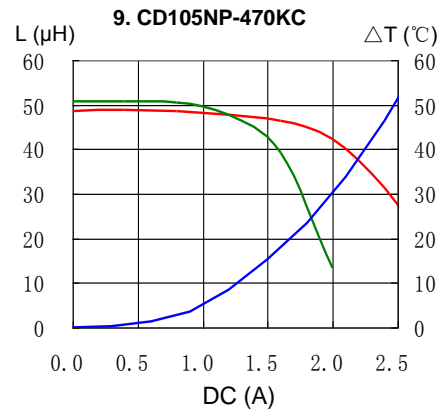
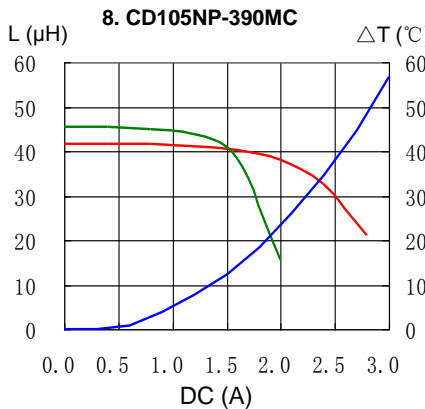
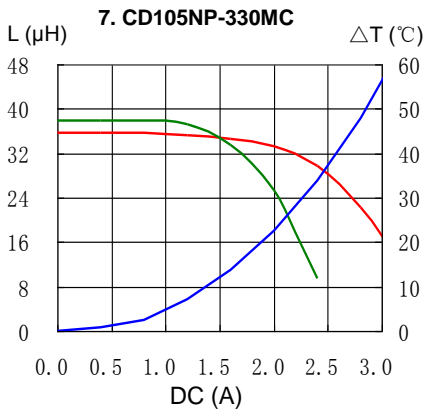
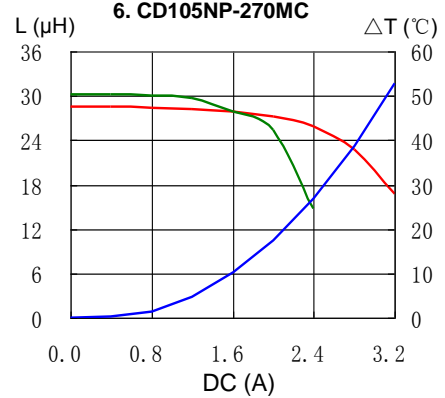
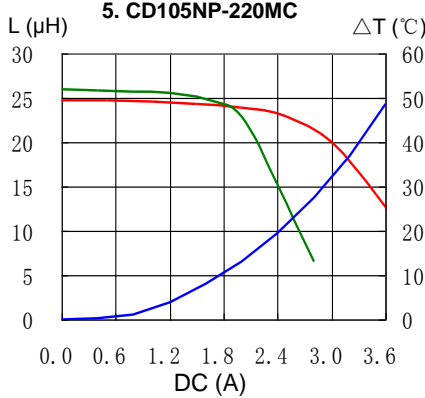
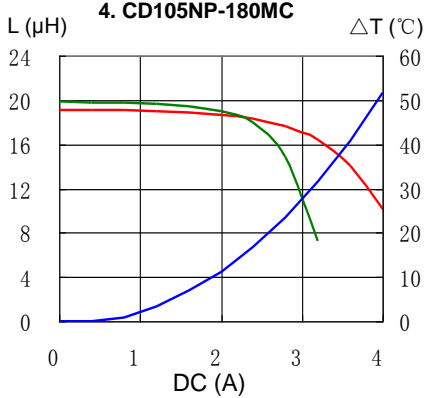
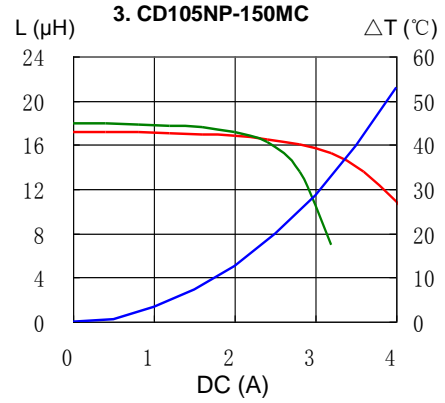
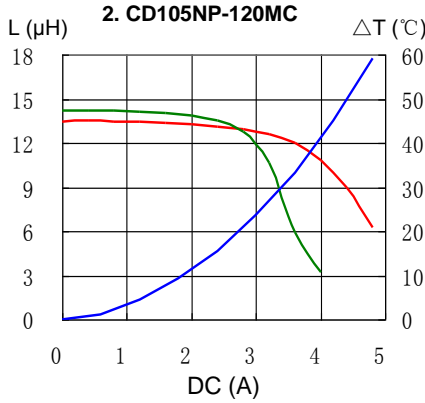
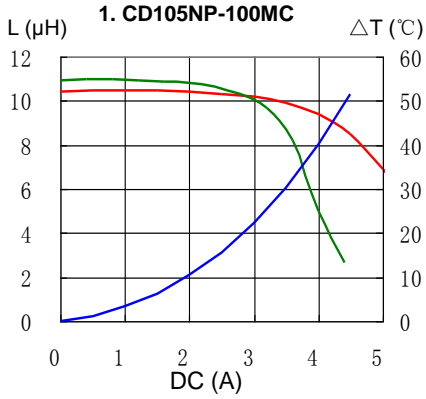
※2: Rated current: The DC current at which the inductance decreases to 90 % of it's initial value or when $\Delta t=40^\circ\text{C}$, whichever is lower ($T_a=20^\circ\text{C}$).

SMD Power Inductor CD105



Saturation Current & Temperature Rise Graph

— L (25°C) — L (105°C) — ΔT

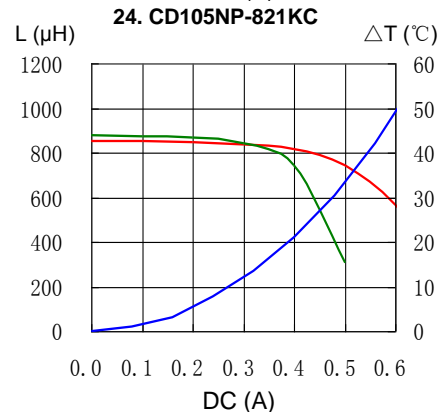
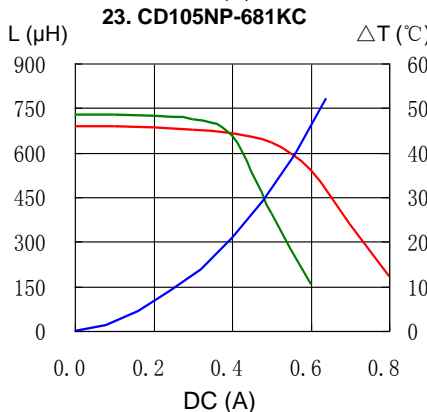
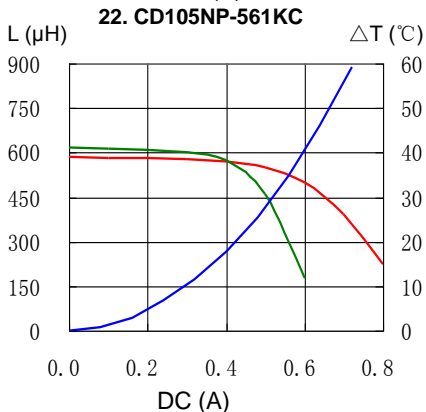
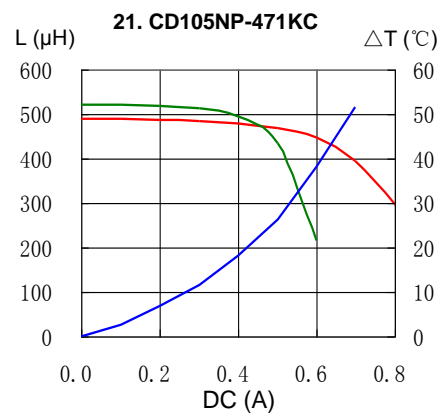
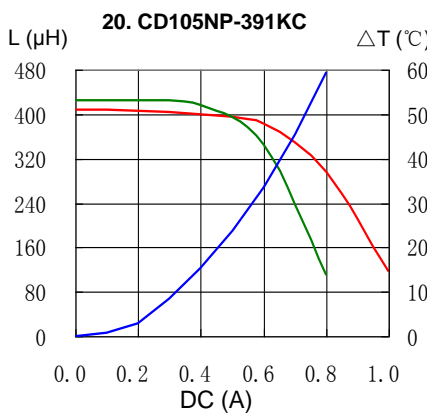
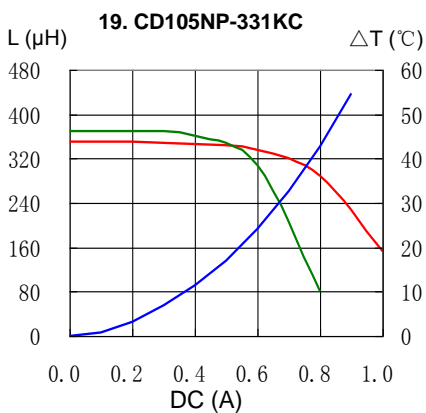
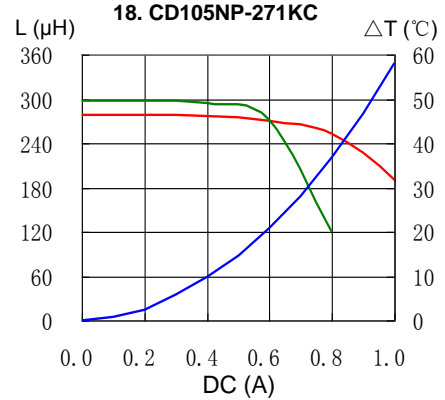
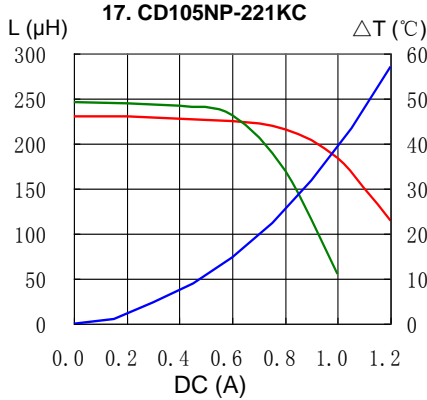
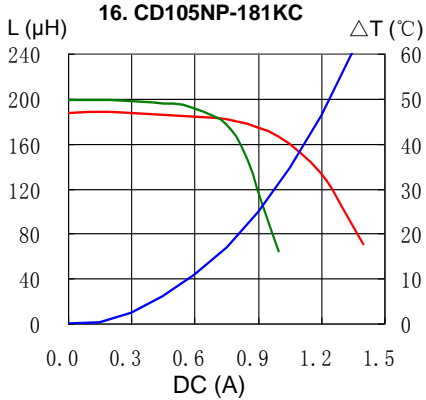
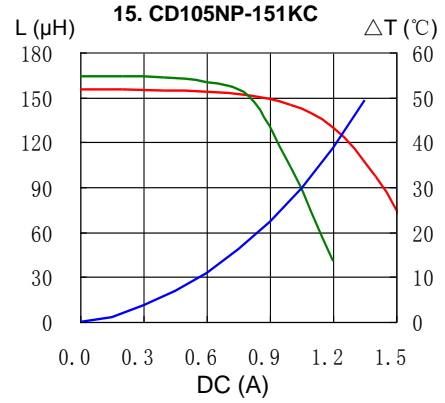
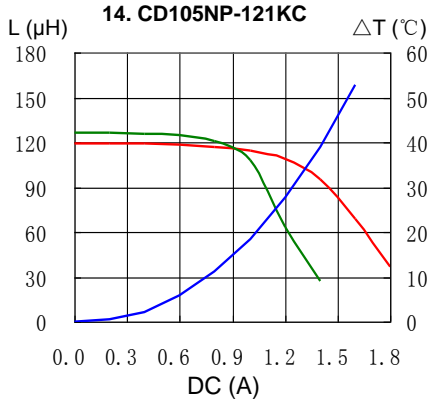
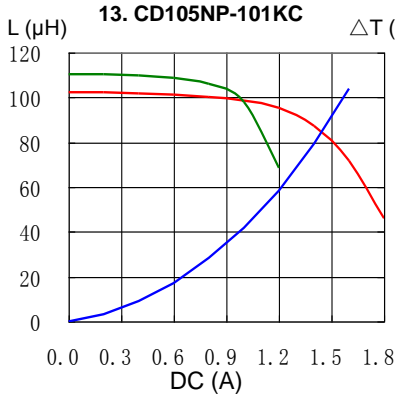


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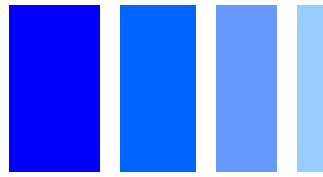


Saturation Current & Temperature Rise Graph

— L (25°C) — L (105°C) — ΔT

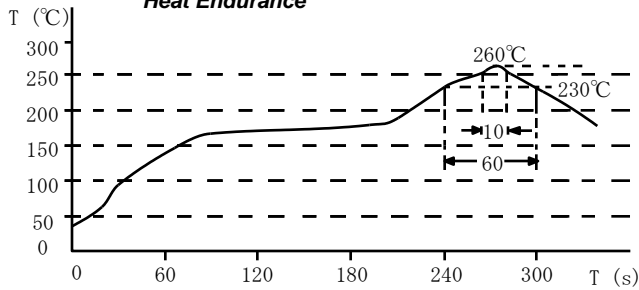


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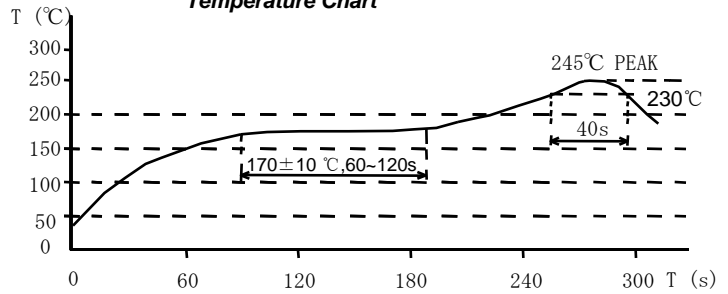


Solder Reflow Condition

Heat Endurance



Temperature Chart



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Hong Kong

Tel.+852-2880-6781
FAX.+852-2565-9600
sales@hk.sumida.com

Saitama(Japan)

Tel.+81-48-691-7300
FAX.+81-48-691-7340
sales@jp.sumida.com

Chicago

Tel.+1-847-545-6700
FAX. +1-847-545-6720
sales@us.sumida.com

Shanghai

Tel.+86-21-5836-3299
FAX.+86-21-5836-3266
shanghai.sales@cn.sumida.com

Seoul

Tel.+82-2-6237-0777
FAX.+82-2-6237-0778
sales@kr.sumida.com

Obernzell

Tel.+49-8591-937-0
FAX. +49-8591-937-103
contact@eu.sumida.com

Shenzhen

Tel.+86-755-8291-0228
FAX.+86-755-8291-0338
shenzhen.sales@cn.sumida.com

Singapore

Tel.+65-6296-3388
FAX.+65-6841-4426
sales@sg.sumida.com

Neumarkt

Tel.+49-9181-4509-110
FAX. +49-9181-4509-310
infocomp@eu.sumida.com

Taipei

Tel.+886-2-8751-2737
FAX.+886-2-8751-2738
sales@tw.sumida.com

San Jose

Tel.+1-408-321-9660
FAX.+1-408-321-9308
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