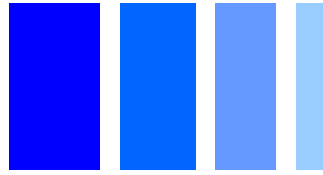




**THE DATASHEET OF
CDRH105RNP-681NC**



SMD Power Inductor CDRH105R



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 10.5 × 10.3 × 5.1 mm Max.
- Product weight: 2.5g (Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

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.

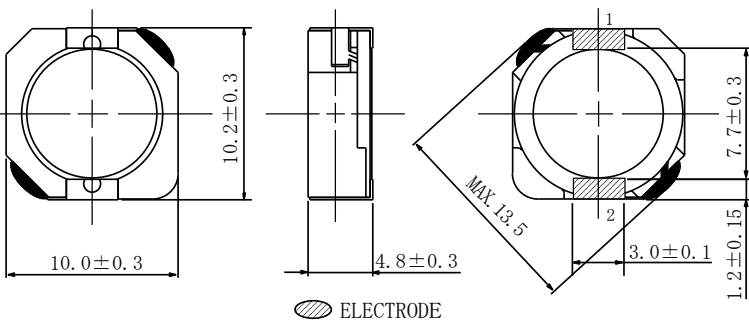
Packaging

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

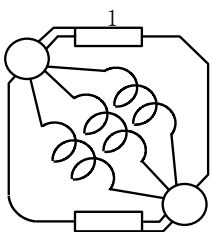
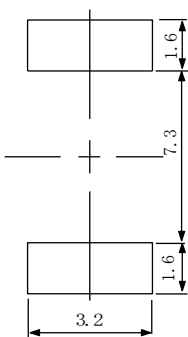
Applications

- Ideally used in Notebook PC, LCD TV, DVD, Game machine, STB, Projector etc as DC-DC converter inductors.

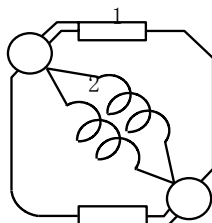
Dimension - [mm]



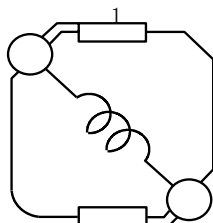
Land pattern and Schematics - [mm]



2
(0.8μH ~ 22μH)



2
(27μH ~ 82μH)



2
(100μH ~ 1.0mH)

SMD Power Inductor

CDRH105R



Electrical Characteristics

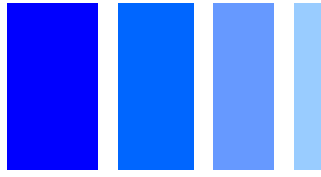
| Part Name | Stamp | Inductance (μH) [within] ※1 | D.C.R. (m Ω) Max. (Typ.) (at 20°C) | Saturation Current Max. (Typ.) (A) ※2 | Temperature Rise Current (Typ.) (A) ※3 |
|------------------|-------|--|--|---|---|
| CDRH105RNP-0R8NC | 0R8 | 0.8 \pm 30% | 4.30 (3.30) | 13.5 (17.0) | (10.5) |
| CDRH105RNP-1R5NC | 1R5 | 1.5 \pm 30% | 5.80 (4.50) | 10.5 (13.0) | (9.80) |
| CDRH105RNP-2R2NC | 2R2 | 2.2 \pm 30% | 7.20(5.60) | 9.25 (12.0) | (8.80) |
| CDRH105RNP-3R3NC | 3R3 | 3.3 \pm 30% | 10.4 (8.00) | 7.80 (9.30) | (7.80) |
| CDRH105RNP-4R7NC | 4R7 | 4.7 \pm 30% | 12.3 (9.50) | 6.40 (7.25) | (7.10) |
| CDRH105RNP-6R8NC | 6R8 | 6.8 \pm 30% | 18.0 (14.0) | 5.40 (6.28) | (6.20) |
| CDRH105RNP-8R2NC | 8R2 | 8.2 \pm 30% | 20.0 (16.0) | 4.85 (5.90) | (5.80) |
| CDRH105RNP-100NC | 100 | 10 \pm 30% | 26.0 (20.0) | 4.45 (5.35) | (5.00) |
| CDRH105RNP-120NC | 120 | 12 \pm 30% | 33.0 (25.0) | 4.00 (4.50) | (4.40) |
| CDRH105RNP-150NC | 150 | 15 \pm 30% | 41.0 (32.0) | 3.60 (4.15) | (3.90) |
| CDRH105RNP-180NC | 180 | 18 \pm 30% | 46.0 (35.0) | 3.20 (3.85) | (3.70) |
| CDRH105RNP-220NC | 220 | 22 \pm 30% | 61.0 (47.0) | 2.95 (3.60) | (3.30) |
| CDRH105RNP-270NC | 270 | 27 \pm 30% | 69.0 (53.0) | 2.70 (3.25) | (3.20) |
| CDRH105RNP-330NC | 330 | 33 \pm 30% | 84.0 (65.0) | 2.40 (2.95) | (2.75) |
| CDRH105RNP-390NC | 390 | 39 \pm 30% | 106 (82.0) | 2.30 (2.73) | (2.65) |
| CDRH105RNP-470NC | 470 | 47 \pm 30% | 130 (100) | 2.00 (2.38) | (2.30) |
| CDRH105RNP-560NC | 560 | 56 \pm 30% | 149 (115) | 1.90 (2.33) | (2.15) |
| CDRH105RNP-680NC | 680 | 68 \pm 30% | 201 (155) | 1.65 (1.90) | (1.75) |
| CDRH105RNP-820NC | 820 | 82 \pm 30% | 227 (175) | 1.50 (1.75) | (1.68) |
| CDRH105RNP-101NC | 101 | 100 \pm 30% | 253 (195) | 1.35 (1.61) | (1.52) |
| CDRH105RNP-121NC | 121 | 120 \pm 30% | 303 (233) | 1.28 (1.53) | (1.43) |
| CDRH105RNP-151NC | 151 | 150 \pm 30% | 370 (285) | 1.12 (1.39) | (1.23) |
| CDRH105RNP-181NC | 181 | 180 \pm 30% | 419 (322) | 1.04 (1.24) | (1.17) |
| CDRH105RNP-221NC | 221 | 220 \pm 30% | 500 (385) | 0.94 (1.17) | (1.08) |
| CDRH105RNP-271NC | 271 | 270 \pm 30% | 672 (512) | 0.84 (0.97) | (0.92) |
| CDRH105RNP-331NC | 331 | 330 \pm 30% | 812 (625) | 0.75 (0.89) | (0.85) |
| CDRH105RNP-391NC | 391 | 390 \pm 30% | 953 (733) | 0.70 (0.81) | (0.80) |
| CDRH105RNP-471NC | 471 | 470 \pm 30% | 1,289 (992) | 0.60 (0.77) | (0.65) |
| CDRH105RNP-561NC | 561 | 560 \pm 30% | 1,430 (1,100) | 0.54 (0.71) | (0.62) |
| CDRH105RNP-681NC | 681 | 680 \pm 30% | 1,599 (1,230) | 0.52 (0.64) | (0.60) |
| CDRH105RNP-821NC | 821 | 820 \pm 30% | 1,768 (1,360) | 0.48 (0.59) | (0.57) |
| CDRH105RNP-102NC | 102 | 1000 \pm 30% | 1,989 (1,530) | 0.42 (0.56) | (0.52) |

※1 Inductance measuring condition: at 100kHz.

※2 The saturation current: This indicates the value of DC current when the inductance decreases to 65% of its nominal.

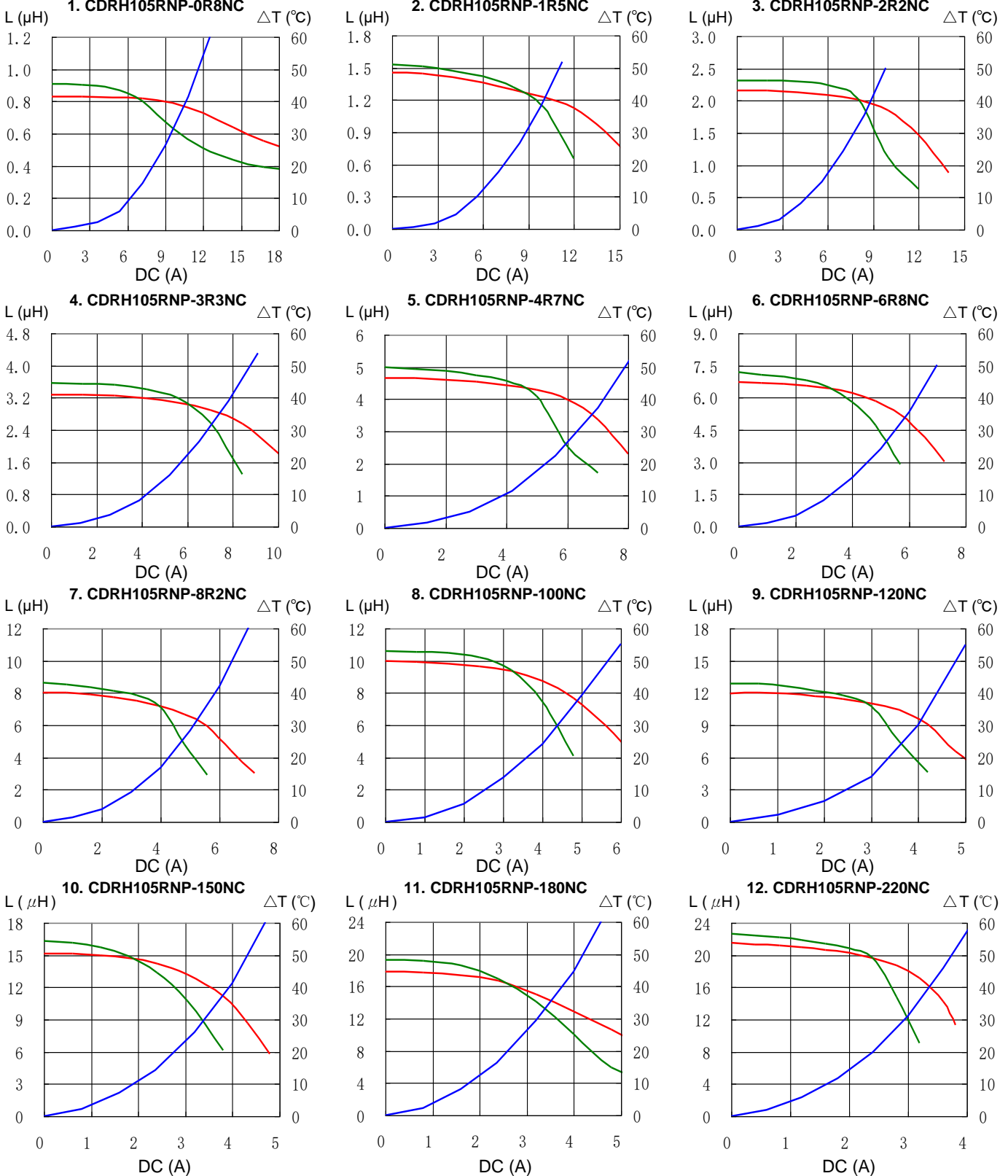
※3 The temperature rise: The value of DC current when the temperature rise is $\Delta T=40^\circ\text{C}$ ($T_a=20^\circ\text{C}$).

SMD Power Inductor CDRH105R

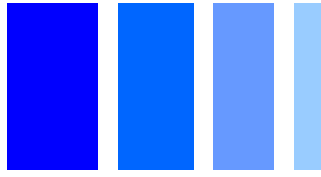


Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

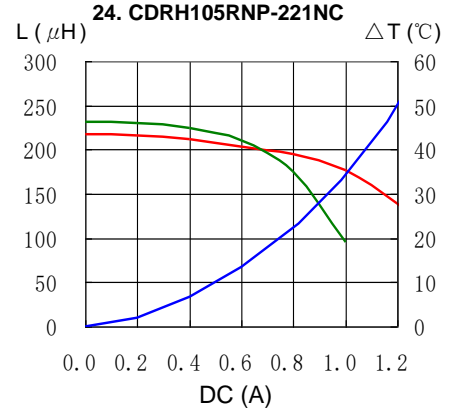
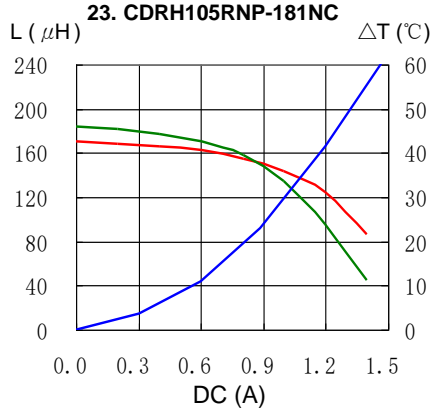
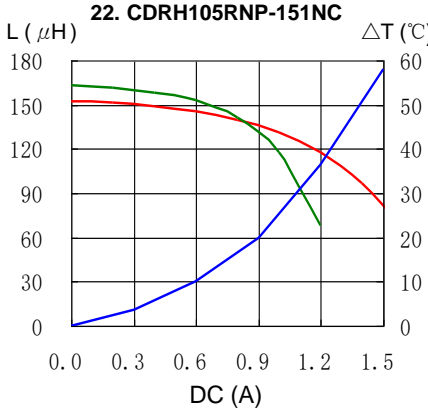
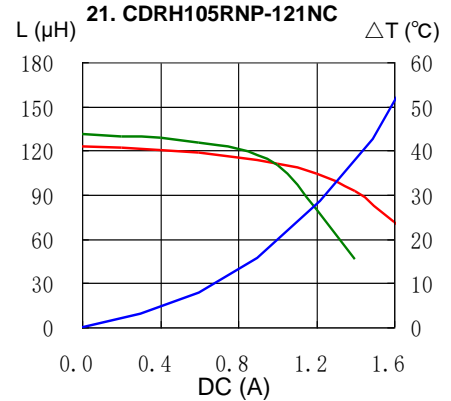
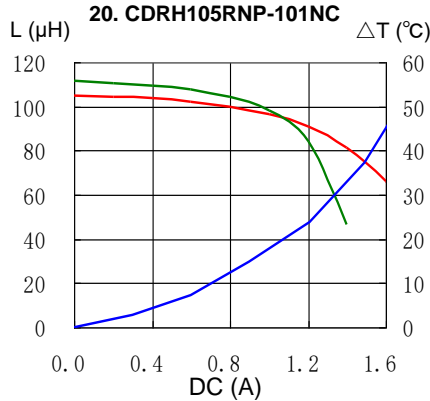
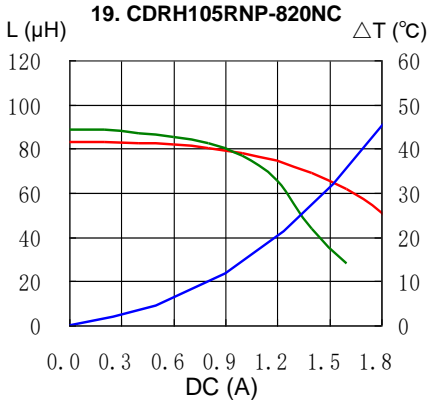
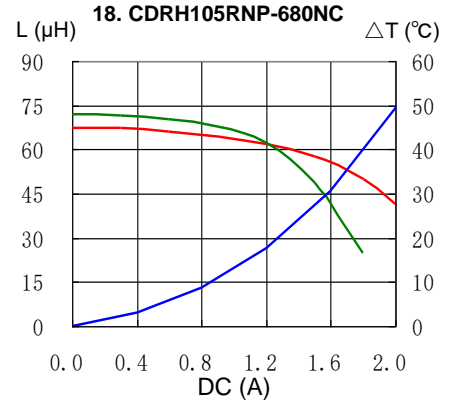
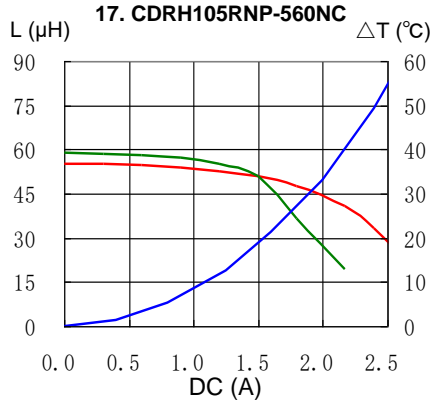
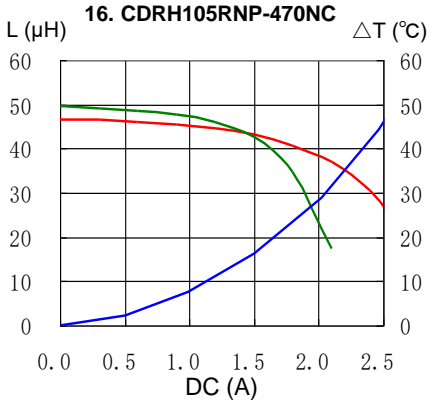
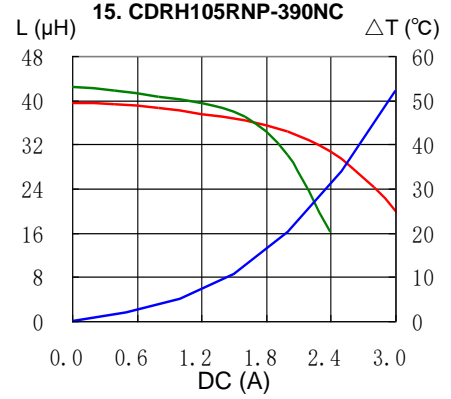
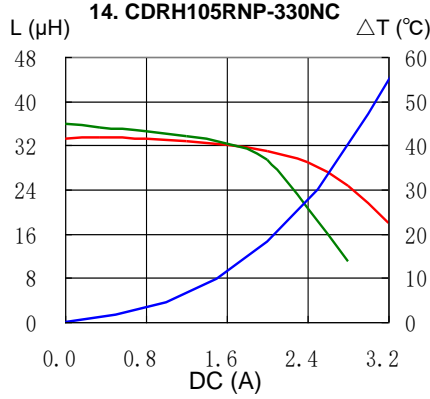
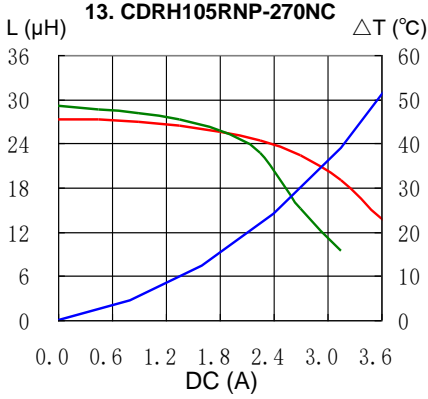


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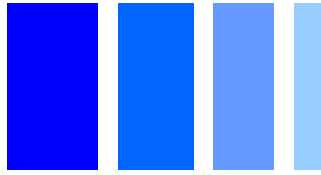


Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

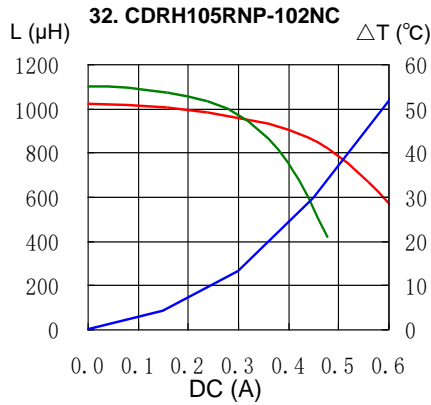
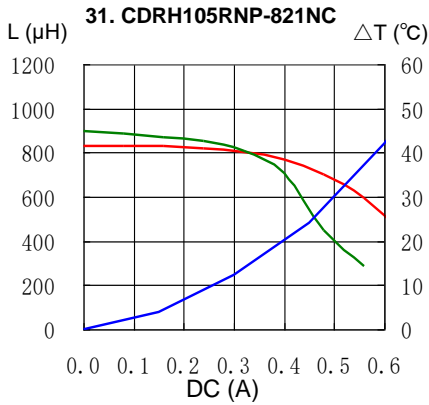
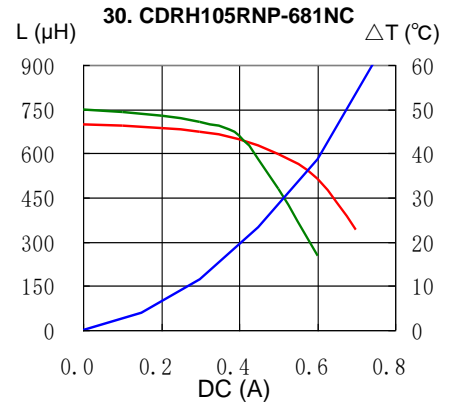
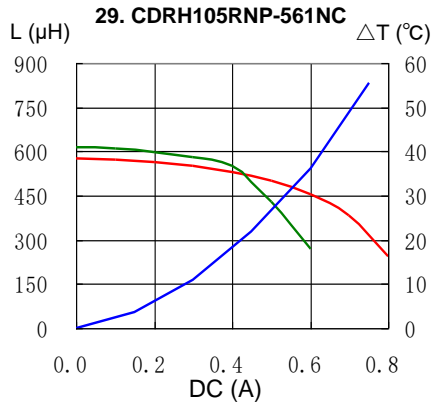
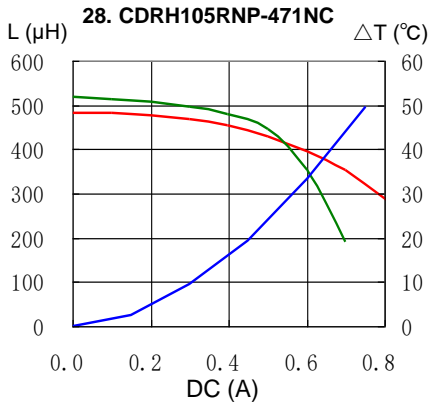
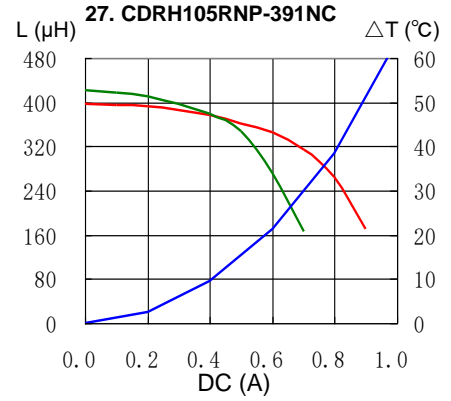
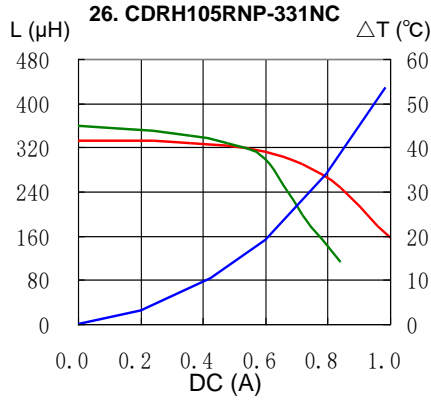
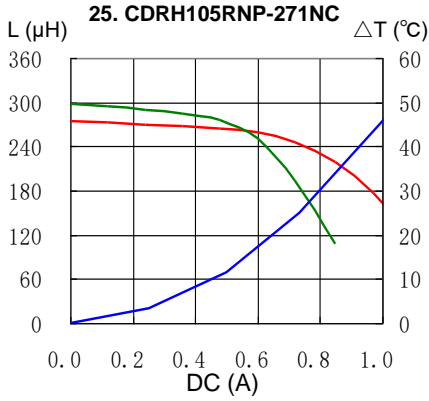


SMD Power Inductor CDRH105R

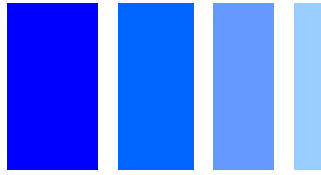


Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

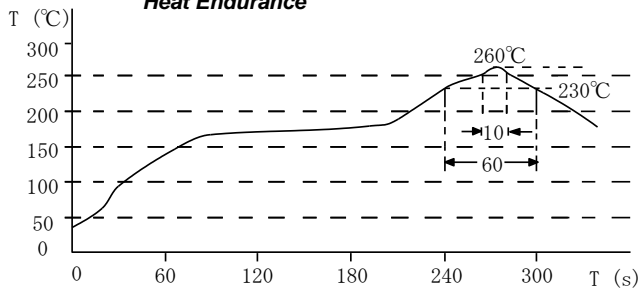


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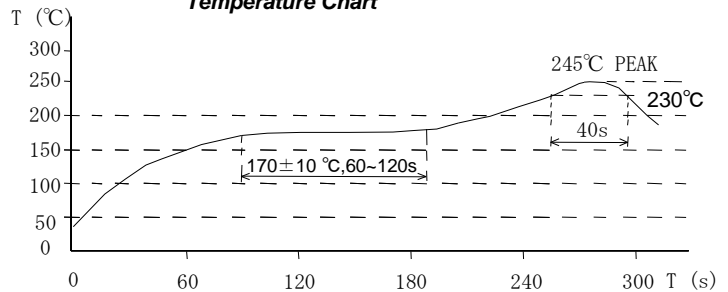


Solder Reflow Condition

Heat Endurance



Temperature Chart



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

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