



**THE DATASHEET OF
CDRH125NP-121MC**



SMD Power Inductor CDRH125



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.3 × 12.3 × 6.0 mm Max.
- Product weight: 2.9g(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.

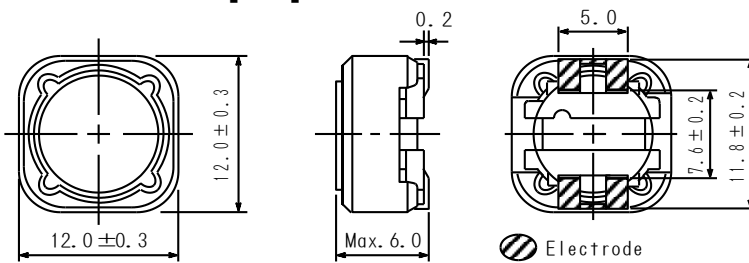
Packaging

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

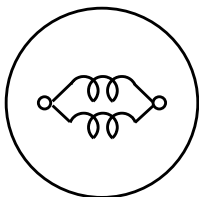
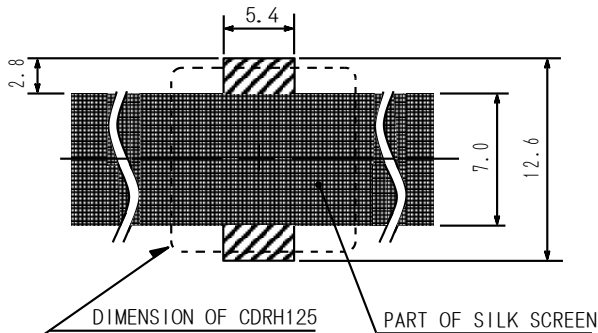
Applications

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

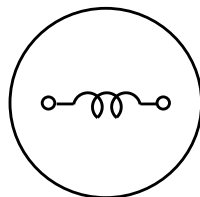
Dimension - [mm]



Land pattern and Schematics - [mm]



1.3µH ~ 47µH



56µH ~ 1mH



Electrical Characteristics

| PART NO. | STAMP | INDUCTANCE [WITHIN] ※1 | D.C.R. (Ω) (at 20°C) MAX.(TYP.) | SATURATION CURRENT (A)※2 MAX.(TYP.) | TEMPERATURE RISE CURRENT (A)※3 |
|-----------------|-------|------------------------------|---|--|---|
| CDRH125NP-100MC | 100 | 10 μ H \pm 20% | 25m(19m) | 5.48(6.85) | 5.60 |
| CDRH125NP-120MC | 120 | 12 μ H \pm 20% | 27m(21m) | 4.88(6.10) | 5.20 |
| CDRH125NP-150MC | 150 | 15 μ H \pm 20% | 30m(23m) | 4.48(5.60) | 5.00 |
| CDRH125NP-180MC | 180 | 18 μ H \pm 20% | 34m(26m) | 4.24(5.30) | 4.50 |
| CDRH125NP-220MC | 220 | 22 μ H \pm 20% | 36m(28m) | 3.84(4.80) | 4.25 |
| CDRH125NP-270MC | 270 | 27 μ H \pm 20% | 51m(39m) | 3.40(4.25) | 3.50 |
| CDRH125NP-330MC | 330 | 33 μ H \pm 20% | 57m(44m) | 3.08(3.85) | 2.95 |
| CDRH125NP-390MC | 390 | 39 μ H \pm 20% | 68m(52m) | 2.80(3.50) | 2.90 |
| CDRH125NP-470MC | 470 | 47 μ H \pm 20% | 75m(58m) | 2.44(3.05) | 2.80 |
| CDRH125NP-560MC | 560 | 56 μ H \pm 20% | 0.11(84m) | 2.34(2.92) | 2.70 |
| CDRH125NP-680MC | 680 | 68 μ H \pm 20% | 0.12(93m) | 2.16(2.70) | 2.55 |
| CDRH125NP-820MC | 820 | 82 μ H \pm 20% | 0.14(0.11) | 1.80(2.25) | 2.50 |
| CDRH125NP-101MC | 101 | 100 μ H \pm 20% | 0.16(0.12) | 1.72(2.15) | 2.28 |
| CDRH125NP-121MC | 121 | 120 μ H \pm 20% | 0.17(0.13) | 1.49(1.86) | 2.05 |
| CDRH125NP-151MC | 151 | 150 μ H \pm 20% | 0.23(0.18) | 1.36(1.70) | 1.80 |
| CDRH125NP-181MC | 181 | 180 μ H \pm 20% | 0.29(0.22) | 1.30(1.62) | 1.75 |
| CDRH125NP-221MC | 221 | 220 μ H \pm 20% | 0.40(0.31) | 1.16(1.45) | 1.56 |
| CDRH125NP-271MC | 271 | 270 μ H \pm 20% | 0.46(0.35) | 1.06(1.32) | 1.38 |
| CDRH125NP-331MC | 331 | 330 μ H \pm 20% | 0.51(0.39) | 0.96(1.20) | 1.25 |
| CDRH125NP-391MC | 391 | 390 μ H \pm 20% | 0.69(0.53) | 0.86(1.08) | 1.20 |
| CDRH125NP-471MC | 471 | 470 μ H \pm 20% | 0.77(0.59) | 0.76(0.95) | 1.05 |
| CDRH125NP-561MC | 561 | 560 μ H \pm 20% | 0.86(0.66) | 0.70(0.88) | 0.90 |
| CDRH125NP-681MC | 681 | 680 μ H \pm 20% | 1.20(0.92) | 0.66(0.82) | 0.80 |
| CDRH125NP-821MC | 821 | 820 μ H \pm 20% | 1.34(1.03) | 0.59(0.74) | 0.72 |
| CDRH125NP-102MC | 102 | 1.0mH \pm 20% | 1.53(1.18) | 0.52(0.65) | 0.66 |

※1 Measured frequency L at 1 kHz

※2 Saturation current: This indicates the value of D.C. current when the inductance becomes 25% lower than it's initial value. ($T_a=20^\circ\text{C}$).

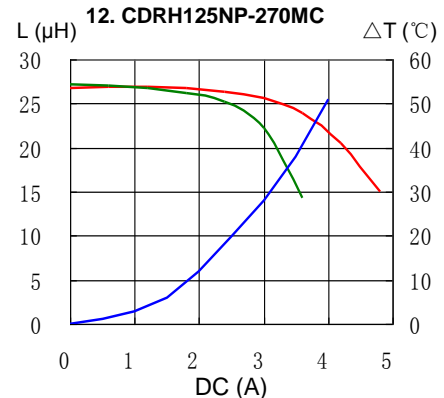
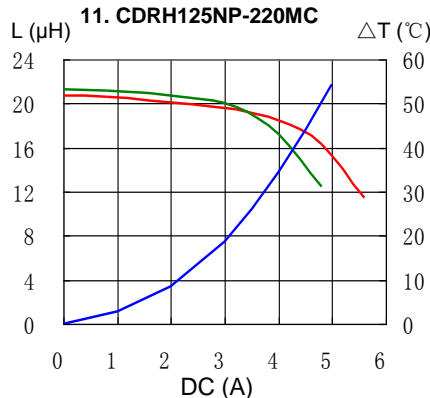
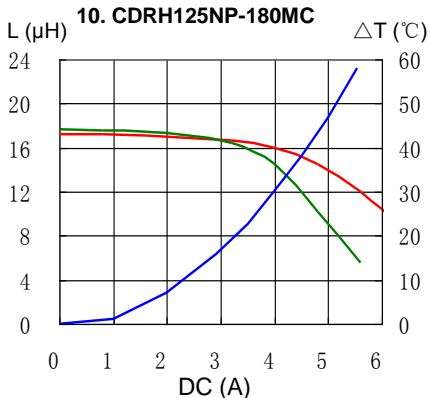
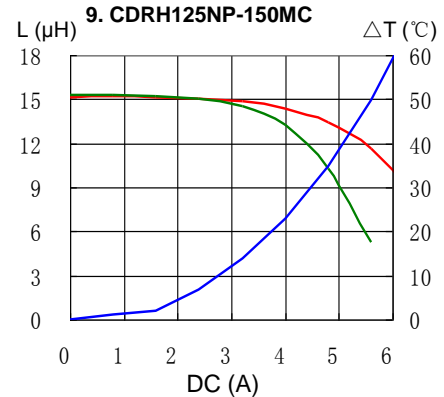
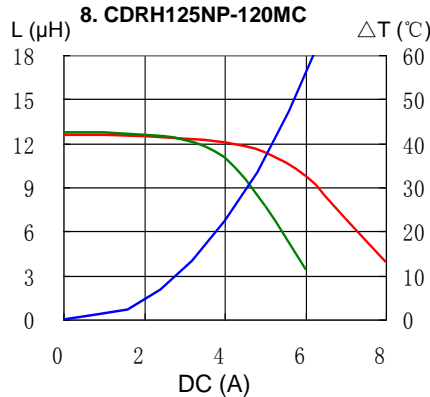
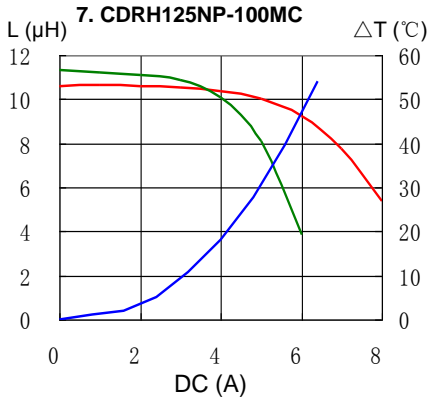
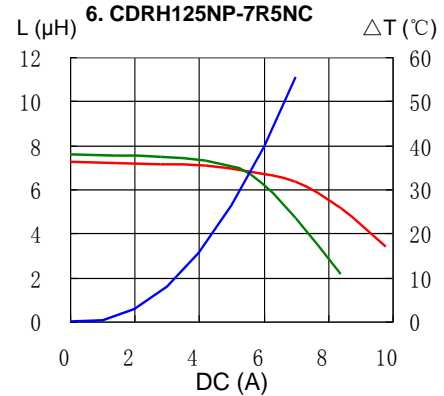
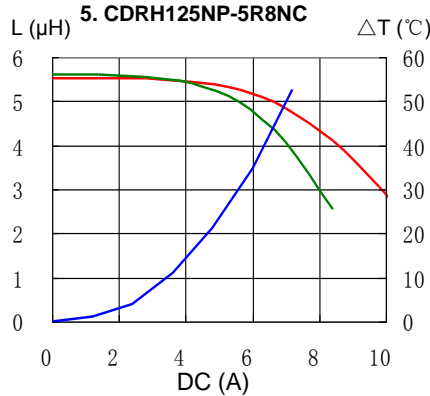
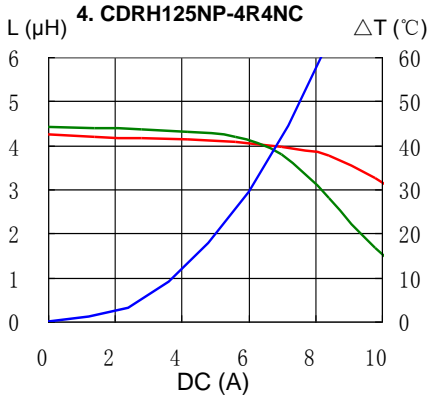
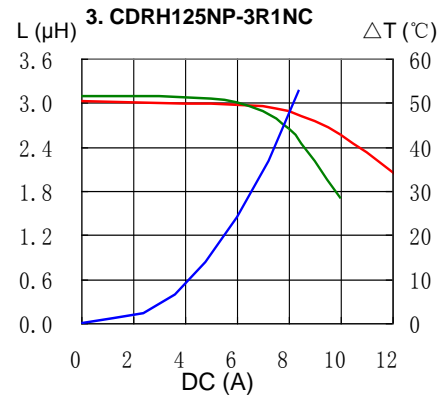
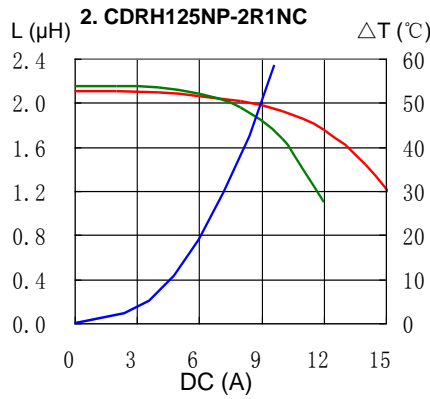
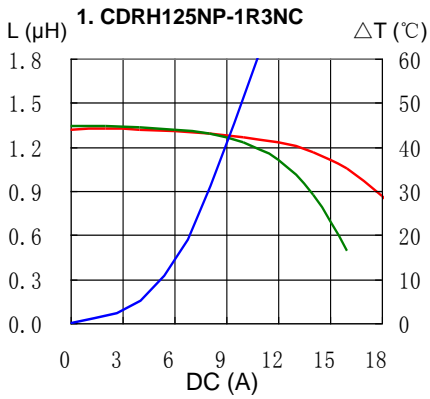
※3 Temperature rise current :The actual value of D.C. current when the temperature of coil becomes $\Delta T=40^\circ\text{C}$ ($T_a=20^\circ\text{C}$).

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

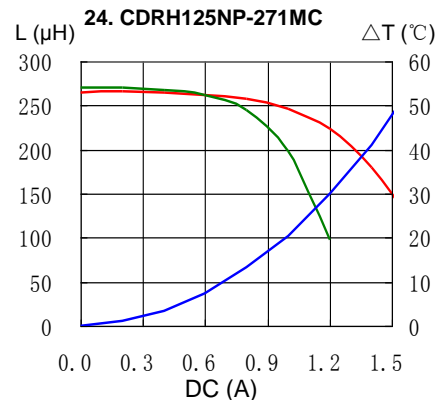
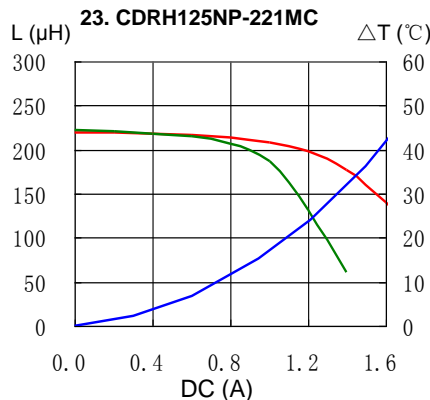
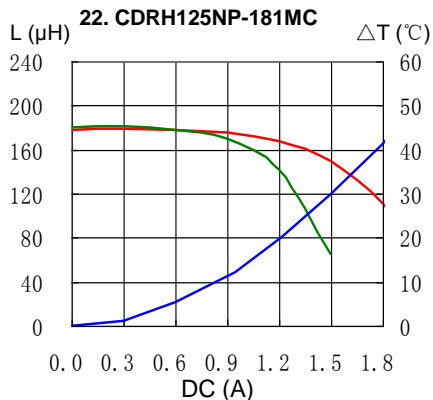
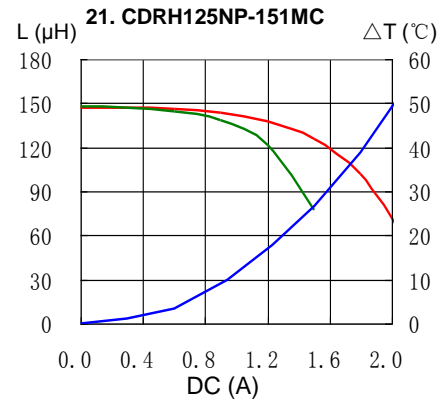
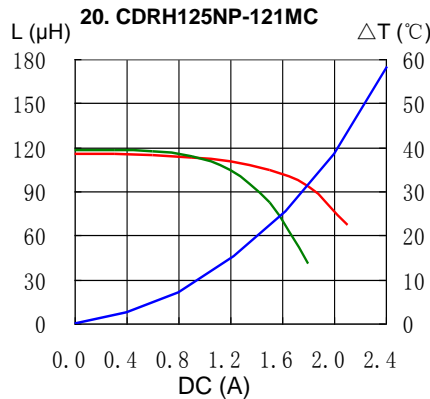
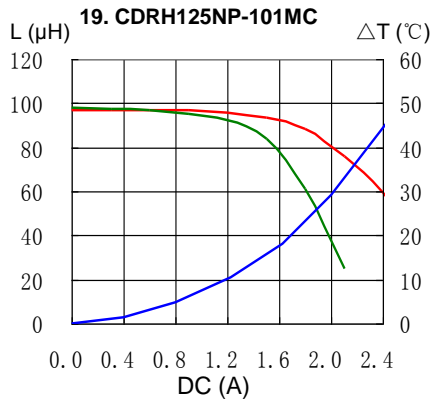
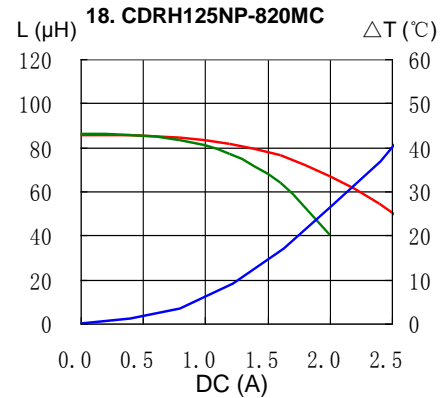
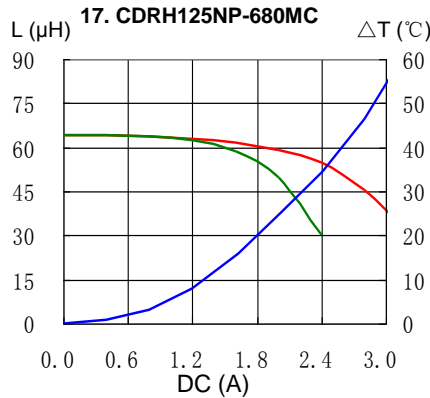
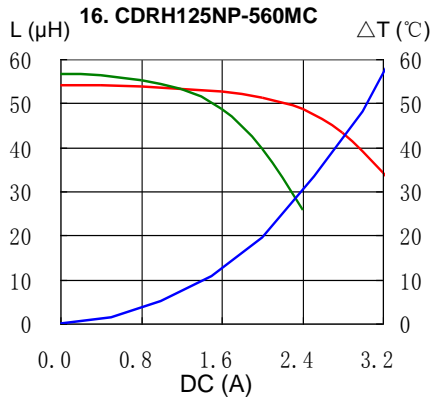
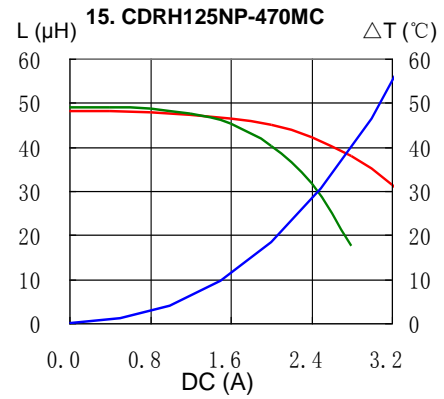
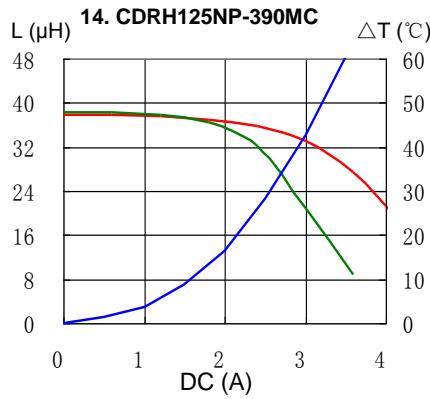
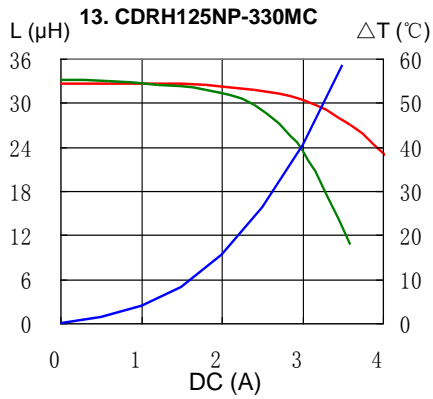


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

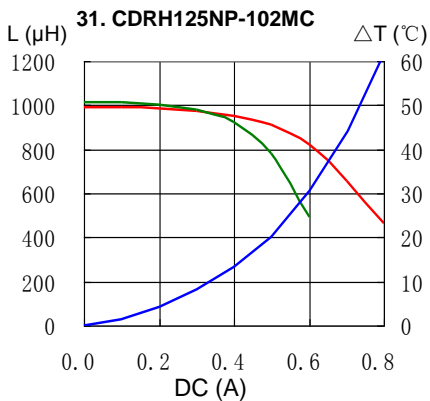
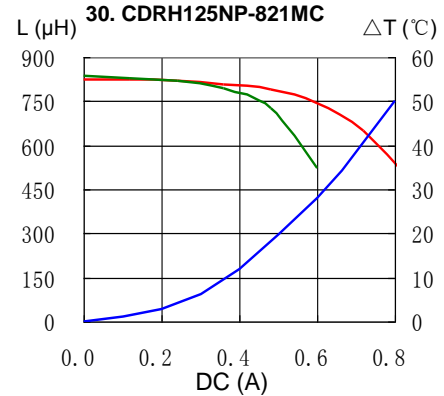
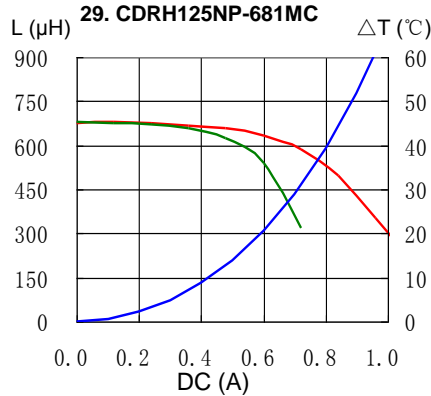
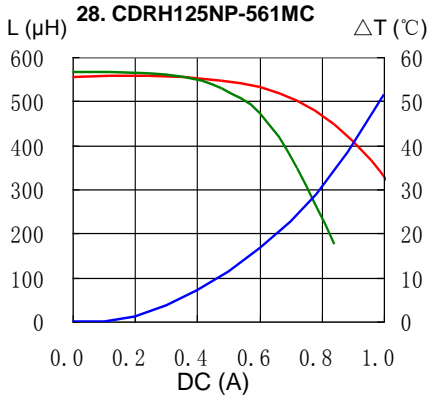
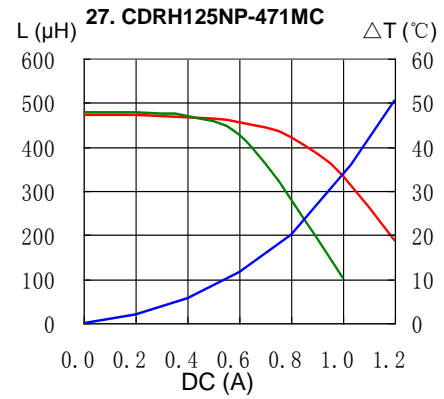
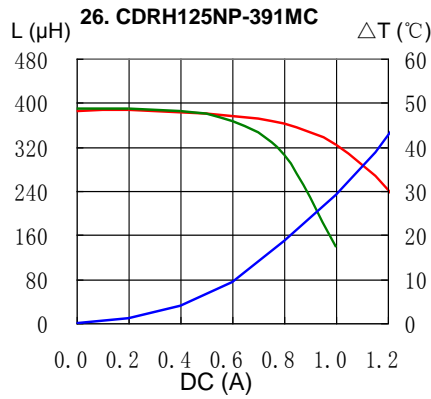
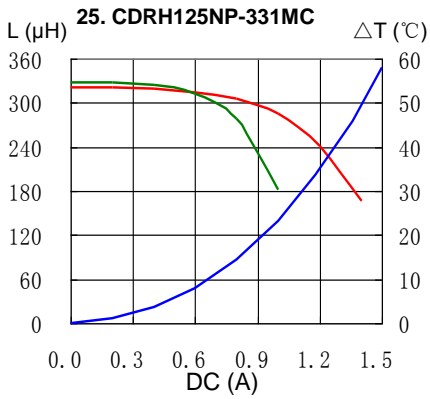


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT



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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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