

SMD Power Inductor CDRH127



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.3 × 12.3 × 8.0 mm Max.
- Product weight: 3.6g(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.

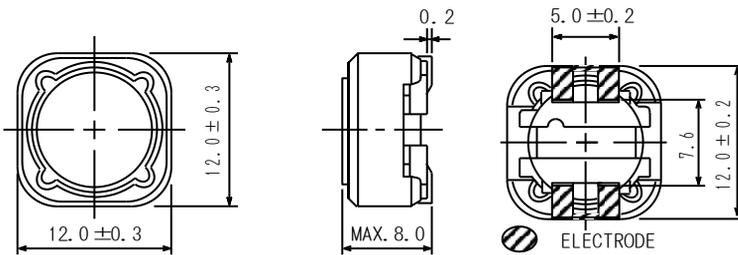
Packaging

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

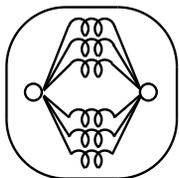
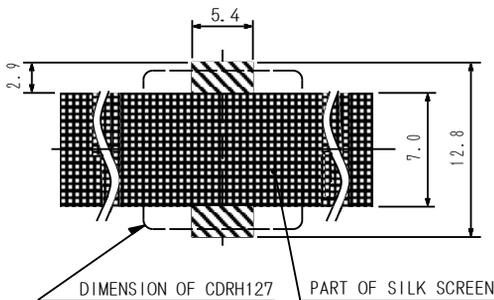
Applications

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

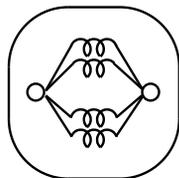
Dimension - [mm]



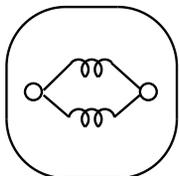
Land pattern and Schematics - [mm]



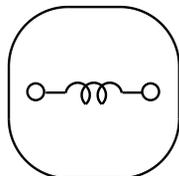
1.2 μ H



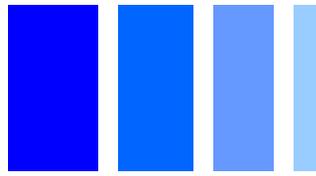
2.4 μ H ~ 56 μ H



68 μ H ~ 150 μ H



180 μ H ~ 1 mH



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 |
|-----------------|-------|------------------------------|---|--|--------------------------------------|
| CDRH127NP-1R2NC | 1R2 | + 40 1.2 μ H - 20% | 7.0m(5.2m) | 19.2(24.0) | 11.3 |
| CDRH127NP-2R4NC | 2R4 | + 40 2.4 μ H - 20% | 11.5m(8.5m) | 15.2(19.0) | 8.9 |
| CDRH127NP-3R5NC | 3R5 | + 40 3.5 μ H - 20% | 13.5m(10.0m) | 12.4(15.5) | 8.4 |
| CDRH127NP-4R7NC | 4R7 | + 40 4.7 μ H - 20% | 15.8m(11.7m) | 11.3(14.2) | 7.8 |
| CDRH127NP-6R1NC | 6R1 | + 40 6.1 μ H - 20% | 17.6m(13.0m) | 9.4(11.8) | 7.2 |
| CDRH127NP-7R6NC | 7R6 | + 40 7.6 μ H - 20% | 20.0m(15.0m) | 8.8(11.0) | 6.5 |
| CDRH127NP-100MC | 100 | 10 μ H \pm 20% | 21.6m(16.0m) | 7.6(9.5) | 6.3 |
| CDRH127NP-120MC | 120 | 12 μ H \pm 20% | 24.3m(18.0m) | 7.3(9.2) | 5.8 |
| CDRH127NP-150MC | 150 | 15 μ H \pm 20% | 27.0m(20.0m) | 6.2(7.8) | 5.5 |
| CDRH127NP-180MC | 180 | 18 μ H \pm 20% | 39.2m(29.0m) | 5.6(7.1) | 4.9 |
| CDRH127NP-220MC | 220 | 22 μ H \pm 20% | 43.2m(32.0m) | 5.1(6.4) | 4.4 |
| CDRH127NP-270MC | 270 | 27 μ H \pm 20% | 45.9m(34.0m) | 4.7(5.9) | 3.9 |
| CDRH127NP-330MC | 330 | 33 μ H \pm 20% | 64.8m(48.0m) | 4.2(5.3) | 3.5 |
| CDRH127NP-390MC | 390 | 39 μ H \pm 20% | 72.9m(54.0m) | 4.0(5.0) | 3.4 |
| CDRH127NP-470MC | 470 | 47 μ H \pm 20% | 0.10 (76.0m) | 3.6(4.5) | 3.2 |
| CDRH127NP-560MC | 560 | 56 μ H \pm 20% | 0.11 (83.0m) | 3.0(3.8) | 2.80 |
| CDRH127NP-680MC | 680 | 68 μ H \pm 20% | 0.14 (0.10) | 2.80(3.5) | 2.50 |
| CDRH127NP-820MC | 820 | 82 μ H \pm 20% | 0.16 (0.12) | 2.56(3.2) | 2.35 |
| CDRH127NP-101MC | 101 | 100 μ H \pm 20% | 0.22 (0.17) | 2.40(3.0) | 2.05 |
| CDRH127NP-121MC | 121 | 120 μ H \pm 20% | 0.25 (0.18) | 2.28(2.85) | 1.95 |
| CDRH127NP-151MC | 151 | 150 μ H \pm 20% | 0.28 (0.21) | 1.96(2.45) | 1.80 |
| CDRH127NP-181MC | 181 | 180 μ H \pm 20% | 0.35 (0.26) | 1.84(2.30) | 1.68 |
| CDRH127NP-221MC | 221 | 220 μ H \pm 20% | 0.39 (0.29) | 1.60(2.00) | 1.55 |
| CDRH127NP-271MC | 271 | 270 μ H \pm 20% | 0.56 (0.42) | 1.48(1.85) | 1.40 |
| CDRH127NP-331MC | 331 | 330 μ H \pm 20% | 0.64 (0.47) | 1.32(1.65) | 1.30 |
| CDRH127NP-391MC | 391 | 390 μ H \pm 20% | 0.70 (0.52) | 1.24(1.55) | 1.20 |
| CDRH127NP-471MC | 471 | 470 μ H \pm 20% | 0.98 (0.73) | 1.12(1.40) | 1.08 |
| CDRH127NP-561MC | 561 | 560 μ H \pm 20% | 1.07 (0.79) | 1.02(1.28) | 0.98 |
| CDRH127NP-681MC | 681 | 680 μ H \pm 20% | 1.46 (1.12) | 0.96(1.20) | 0.82 |
| CDRH127NP-821MC | 821 | 820 μ H \pm 20% | 1.64 (1.26) | 0.86(1.08) | 0.75 |
| CDRH127NP-102MC | 102 | 1.0 mH \pm 20% | 1.82 (1.40) | 0.77(0.96) | 0.70 |

※1 Measured frequency L 1.2 μ H ~ 7.6 μ H ; at 100 kHz
10 μ H ~ 1 mH ; at 1 kHz

※2 Saturation current: This indicates the value of D.C. current when the inductance becomes 25% lower than its initial value. (Ta=20°C)

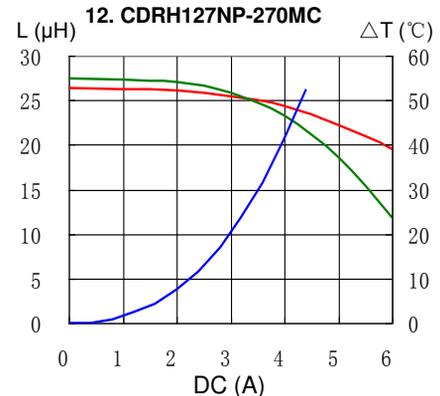
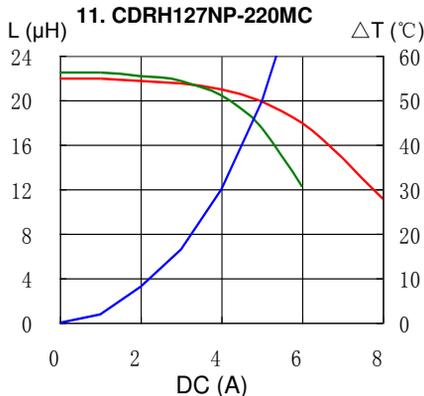
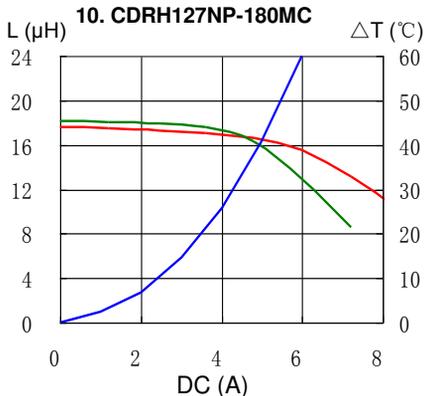
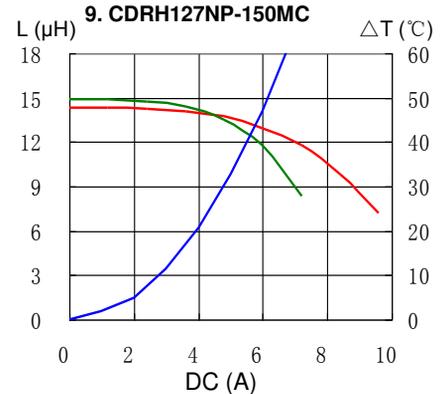
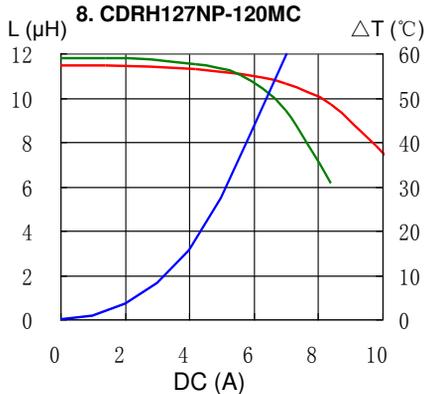
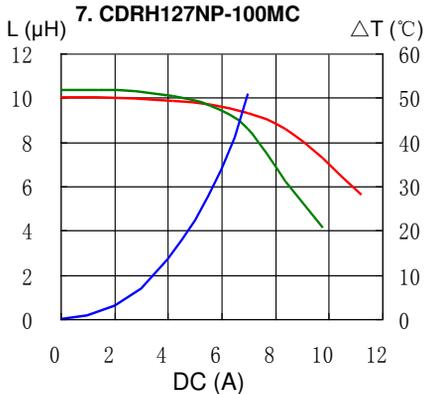
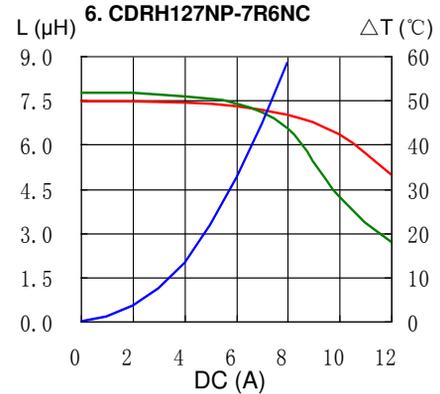
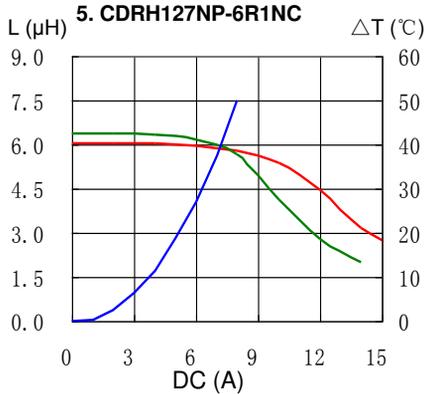
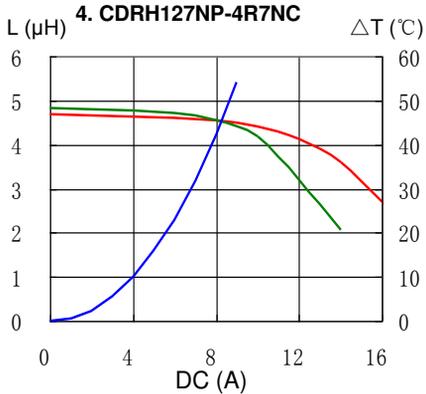
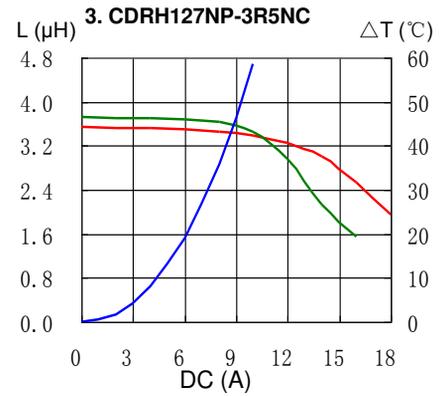
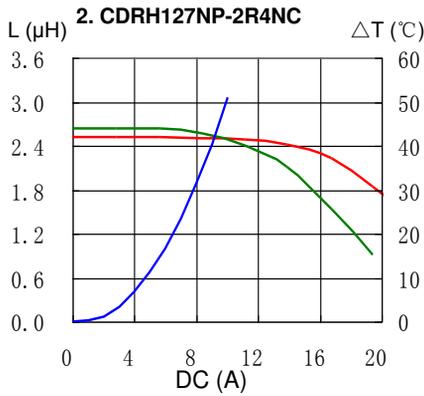
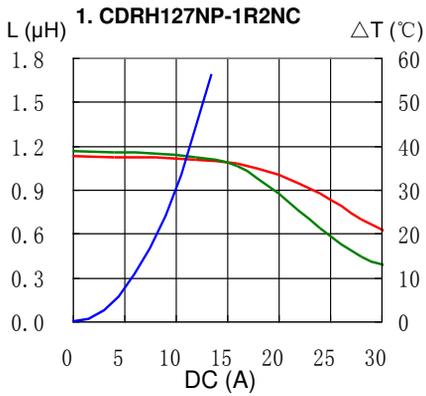
※3 Temperature rise current : The actual value of D.C. current when the temperature of coil becomes $\Delta T=40^\circ\text{C}$ (Ta=20°C).

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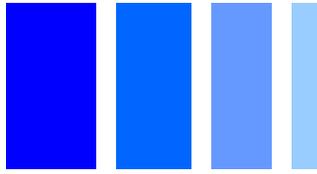


Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

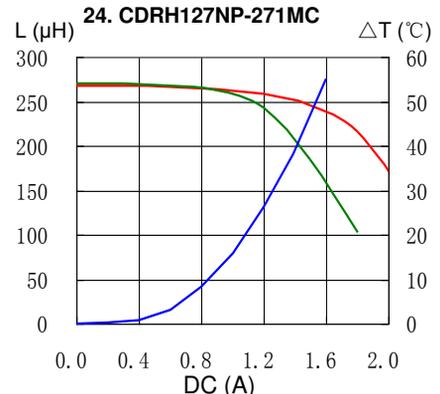
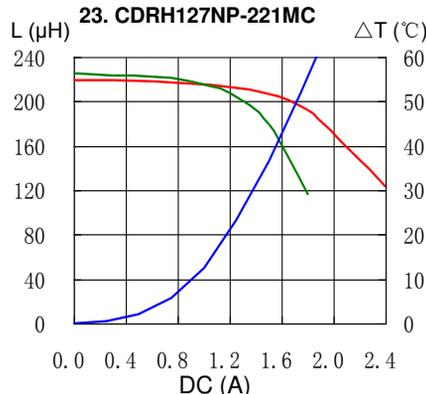
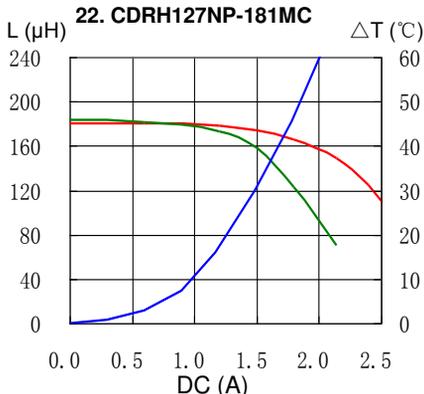
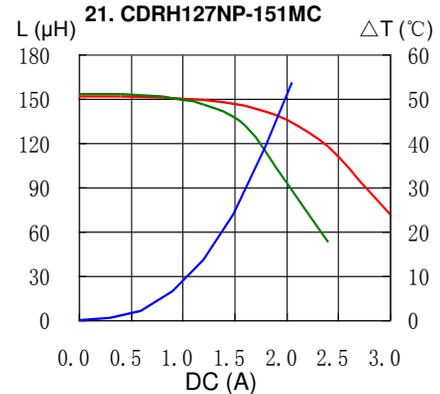
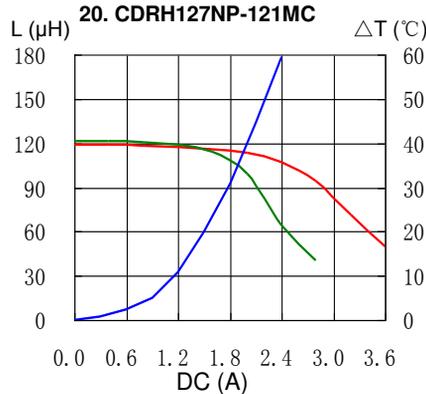
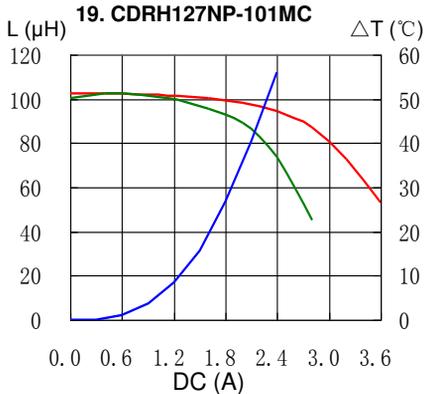
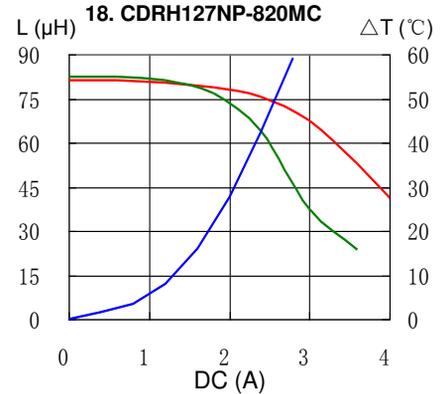
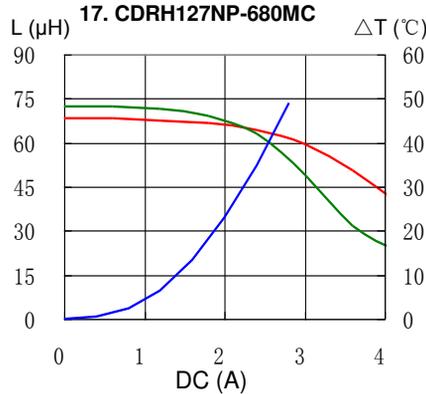
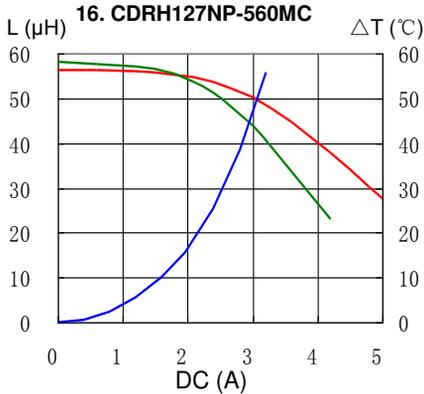
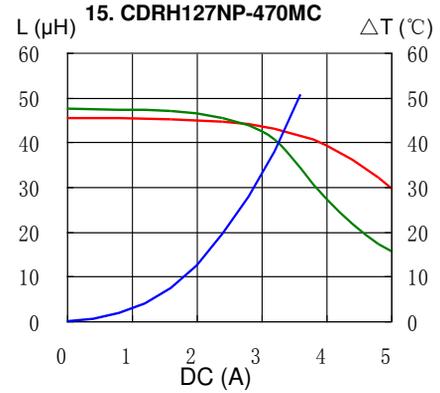
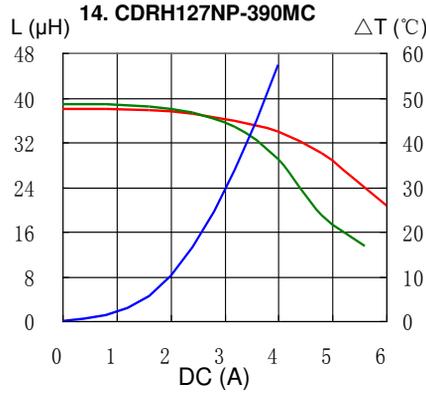
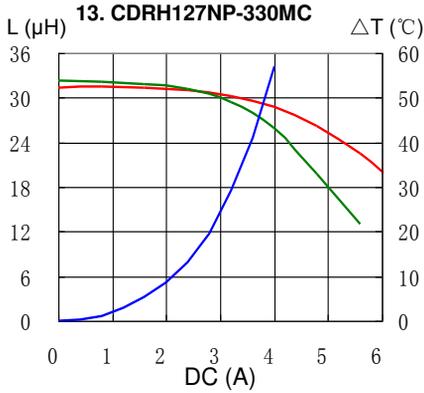


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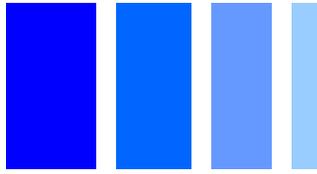


Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

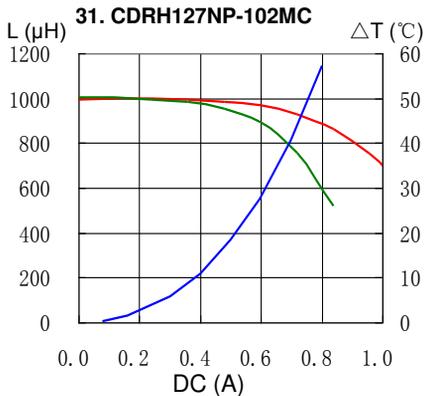
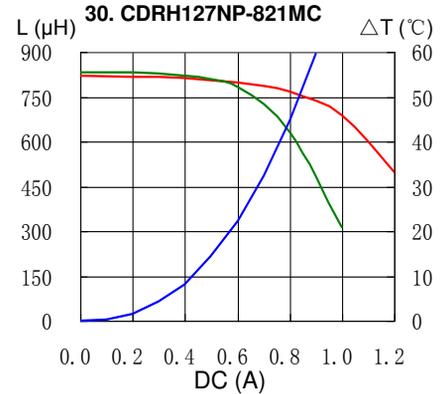
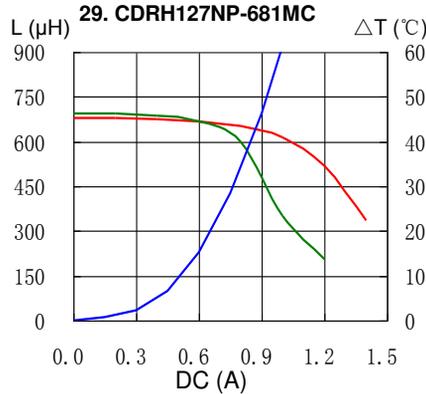
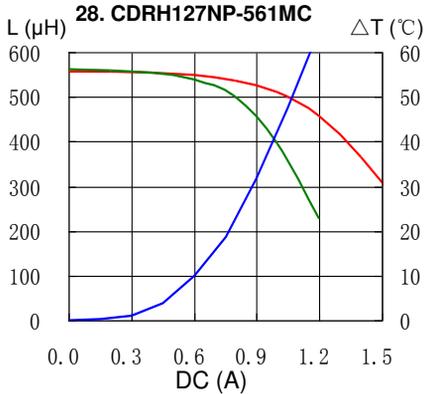
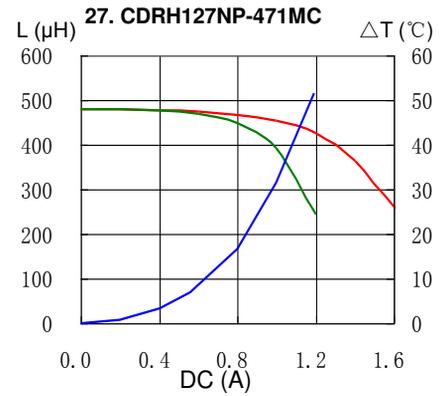
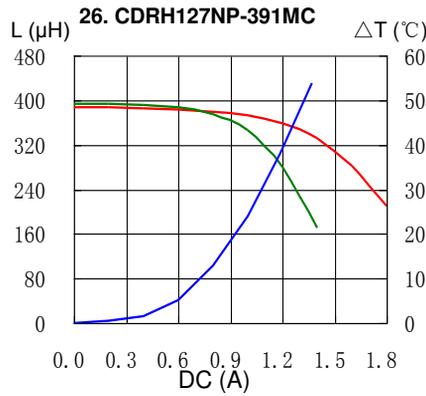
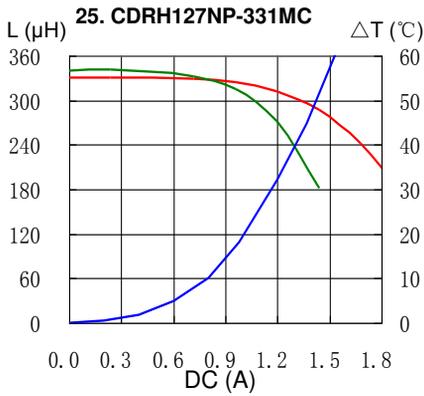


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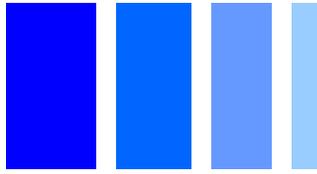


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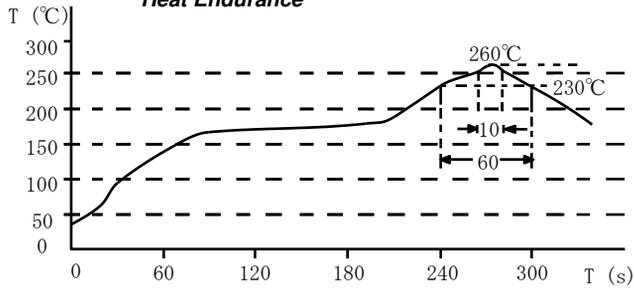


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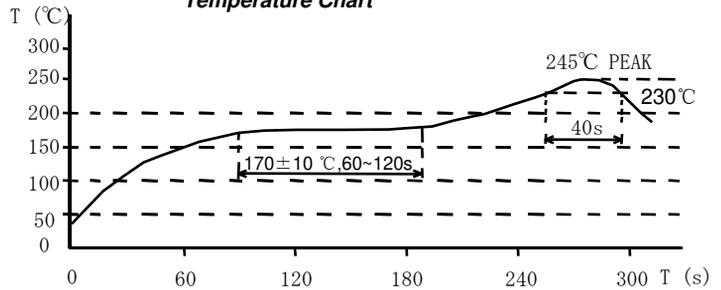


Solder Reflow Condition

Heat Endurance



Temperature Chart



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

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