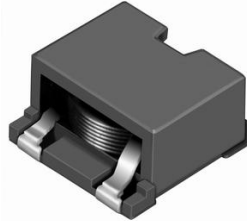


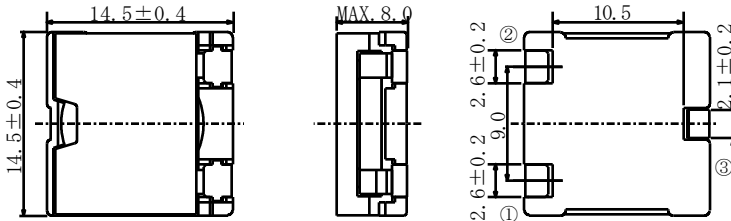
SMD Power Inductor CDEP147



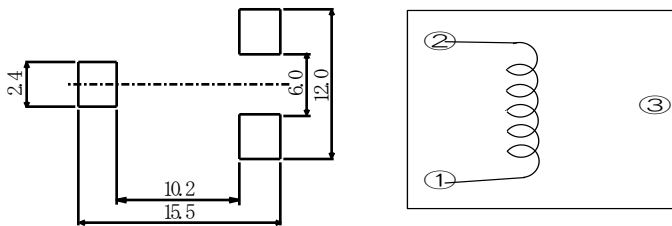
Description

- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 14.9 × 14.9 × 8.0 mm Max.
- Product weight: 5.3g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

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 ~ +125°C
- Solder reflow temperature: 260 °C peak.

Packaging

- Carrier tape and reel packaging
- 13.0" diameter reel
- 300pcs per reel

Applications

- Ideally used in personal computer CPU power supply.

Electrical Characteristics

Electrical Characteristics-low D.C.R. type

| PART NO. | STAMP | INDUCTANCE [WITHIN] ※1 | D.C.R. (mΩ) [MAX.] (Typ.) (at 20°C) | SATURATION CURRENT (A) ※2 | | TEMPERATURE RISE CURRENT (A) ※3 |
|---------------------|-------|---------------------------|---|--------------------------------|------------|---|
| | | | | (at 20°C) | (at 100°C) | |
| CDEP147NP-0R5MC-125 | 0R5ML | 0.5μH ± 20% | 1.18(0.98) | 39.6(49.5) | 33.9(42.4) | 23.0 |
| CDEP147NP-1R1MC-125 | 1R1ML | 1.1μH ± 20% | 1.46(1.22) | 26.4(33.0) | 22.8(28.5) | 21.5 |
| CDEP147NP-2R0MC-125 | 2R0ML | 2.0μH ± 20% | 2.02(1.69) | 19.6(24.5) | 16.8(21.0) | 20.0 |
| CDEP147NP-3R1MC-125 | 3R1ML | 3.1μH ± 20% | 3.23(2.70) | 16.0(20.0) | 13.6(17.0) | 17.5 |
| CDEP147NP-4R5MC-125 | 4R5ML | 4.5μH ± 20% | 4.97(4.14) | 13.6(17.0) | 11.6(14.5) | 16.0 |
| CDEP147NP-6R1MC-125 | 6R1ML | 6.1μH ± 20% | 6.03(5.02) | 11.6(14.5) | 10.0(12.5) | 12.5 |
| CDEP147NP-8R0MC-125 | 8R0ML | 8.0μH ± 20% | 7.80(6.50) | 10.0(12.5) | 8.2(10.3) | 11.0 |
| CDEP147NP-100MC-125 | 100ML | 10.0μH ± 20% | 9.85(8.21) | 9.2(11.5) | 7.6(9.5) | 10.0 |
| CDEP147NP-120MC-125 | 120ML | 12.0μH ± 20% | 13.31(11.1) | 8.0(10.0) | 6.6(8.2) | 8.5 |

SMD Power Inductor CDEP147



Electrical Characteristics—standard type

| PART NO. | STAMP | INDUCTANCE [WITHIN] ※1 | D.C.R. (mΩ) [MAX.] (Typ.) (at 20°C) | SATURATION CURRENT (A) ※2 | | TEMPERATURE RISE CURRENT (A) ※3 |
|--------------------|-------|---------------------------|---|--------------------------------|------------|---|
| | | | | (at 20°C) | (at100°C) | |
| CDEP147NP-0R4NC-95 | 0R4NS | 0.4μH±25% | 1.18(0.98) | 52.8(66.0) | 45.6(57.0) | 23.0 |
| CDEP147NP-0R9MC-95 | 0R9MS | 0.9μH±20% | 1.46(1.22) | 36.0(45.0) | 30.8(38.5) | 21.5 |
| CDEP147NP-1R5MC-95 | 1R5MS | 1.5μH±20% | 2.02(1.69) | 27.2(34.0) | 22.8(28.5) | 20.0 |
| CDEP147NP-2R4MC-95 | 2R4MS | 2.4μH±20% | 3.23(2.70) | 22.4(28.0) | 19.2(24.0) | 17.5 |
| CDEP147NP-3R4MC-95 | 3R4MS | 3.4μH±20% | 4.97(4.14) | 18.4(23.0) | 16.0(20.0) | 16.0 |
| CDEP147NP-4R7MC-95 | 4R7MS | 4.7μH±20% | 6.03(5.02) | 15.2(19.0) | 14.2(17.8) | 12.5 |
| CDEP147NP-6R1MC-95 | 6R1MS | 6.1μH±20% | 7.80(6.50) | 14.8(18.5) | 12.4(15.5) | 11.0 |
| CDEP147NP-7R7MC-95 | 7R7MS | 7.7μH±20% | 9.85(8.21) | 12.4(15.5) | 10.6(13.2) | 10.0 |
| CDEP147NP-9R5MC-95 | 9R5MS | 9.5μH±20% | 13.31(11.1) | 11.2(14.0) | 9.6(12.0) | 8.5 |

Electrical Characteristics—high power type

| PART NO. | STAMP | INDUCTANCE [WITHIN] ※1 | D.C.R. (mΩ) [MAX.] (Typ.) (at 20°C) | SATURATION CURRENT (A) ※2 | | TEMPERATURE RISE CURRENT (A) ※3 |
|--------------------|-------|---------------------------|---|--------------------------------|------------|---|
| | | | | (at 20°C) | (at100°C) | |
| CDEP147NP-0R3NC-73 | 0R3NH | 0.3μH±25% | 1.18(0.98) | 70.0(87.6) | 59.8(74.8) | 23.0 |
| CDEP147NP-0R7MC-73 | 0R7MH | 0.7μH±20% | 1.46(1.22) | 46.4(58.0) | 39.2(49.0) | 21.5 |
| CDEP147NP-1R2MC-73 | 1R2MH | 1.2μH±20% | 2.02(1.69) | 35.7(44.7) | 30.0(37.5) | 20.0 |
| CDEP147NP-1R8MC-73 | 1R8MH | 1.8μH±20% | 3.23(2.70) | 29.6(37.0) | 24.0(30.0) | 17.5 |
| CDEP147NP-2R6MC-73 | 2R6MH | 2.6μH±20% | 4.97(4.14) | 24.4(30.5) | 20.4(25.5) | 16.0 |
| CDEP147NP-3R5MC-73 | 3R5MH | 3.5μH±20% | 6.03(5.02) | 20.8(26.0) | 17.2(21.5) | 12.5 |
| CDEP147NP-4R7MC-73 | 4R7MH | 4.7μH±20% | 7.80(6.50) | 17.6(22.0) | 16.0(20.0) | 11.0 |
| CDEP147NP-5R9MC-73 | 5R9MH | 5.9μH±20% | 9.85(8.21) | 16.4(20.5) | 14.0(17.5) | 10.0 |
| CDEP147NP-7R3MC-73 | 7R3MH | 7.3μH±20% | 13.31(11.1) | 14.6(18.3) | 12.2(15.3) | 8.5 |

※1. Measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 75% of it's nominal value.

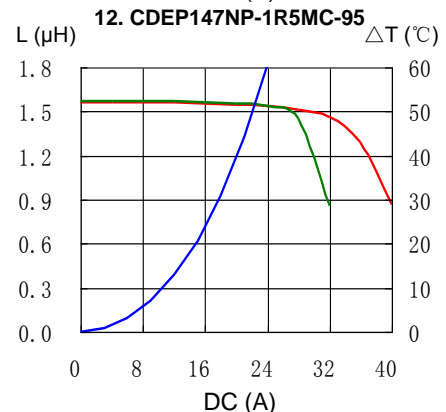
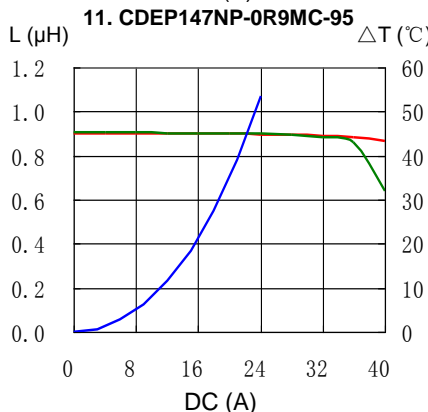
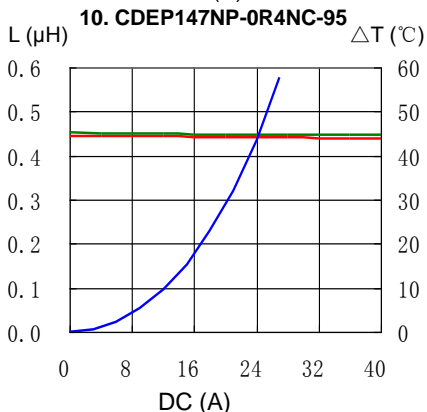
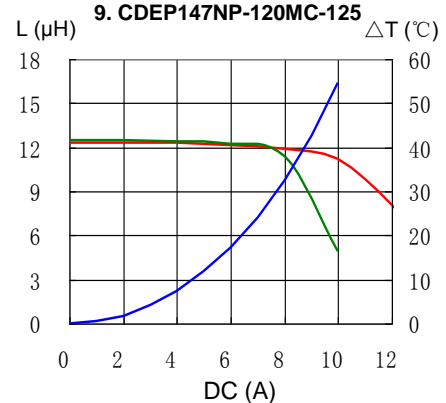
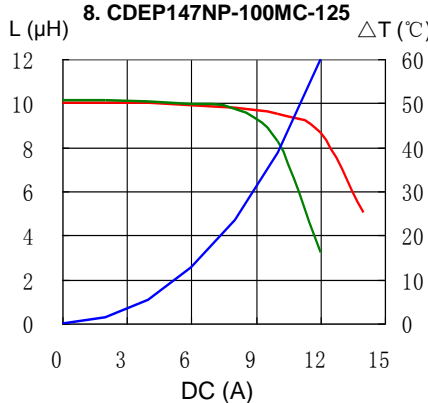
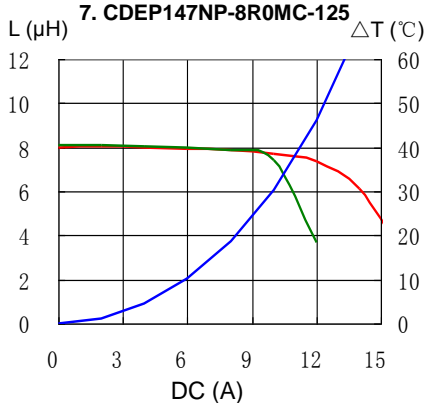
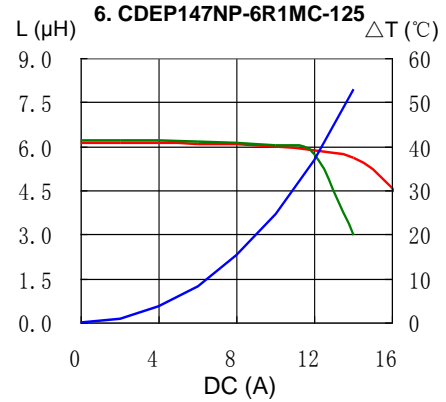
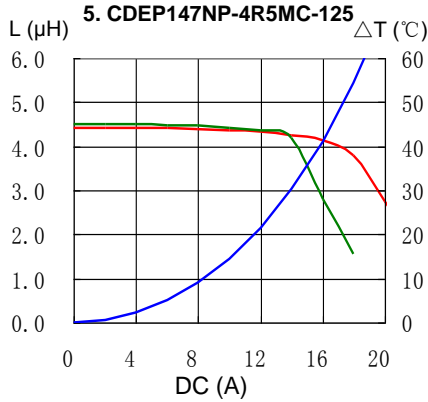
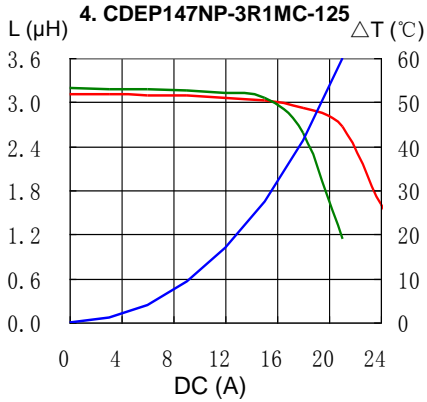
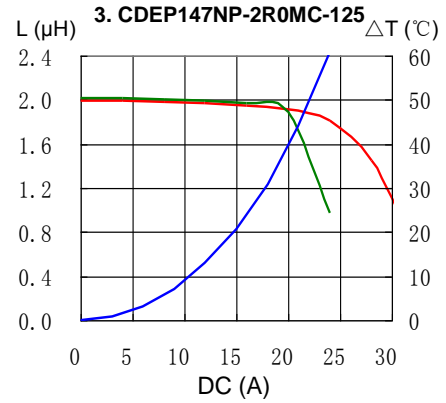
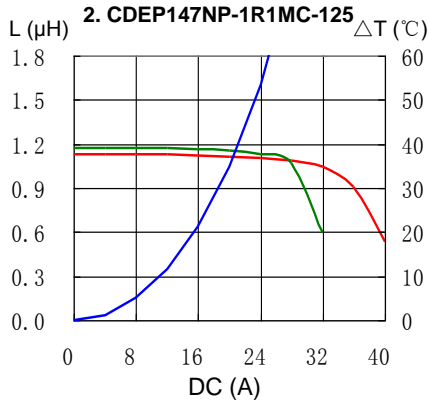
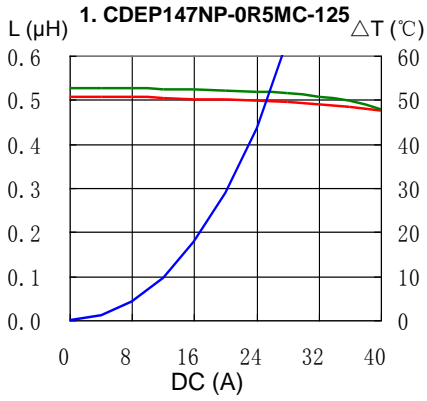
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t=40^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$).

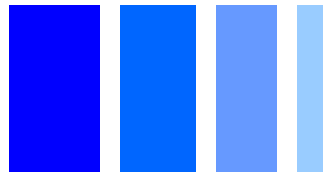
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Saturation Current & Temperature Rise Graph

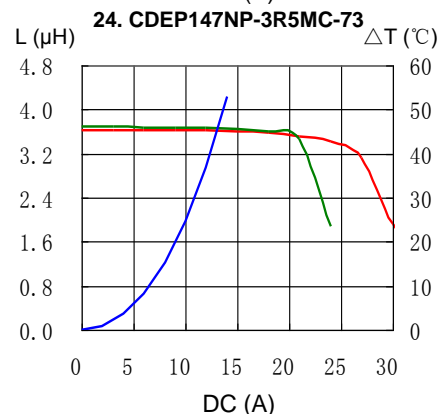
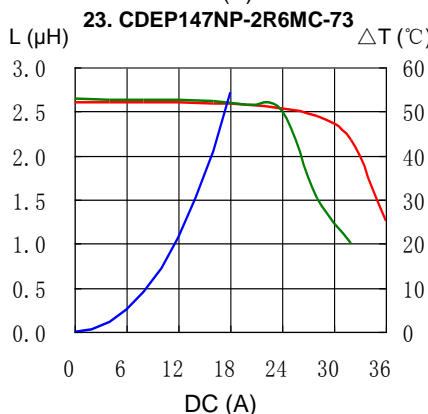
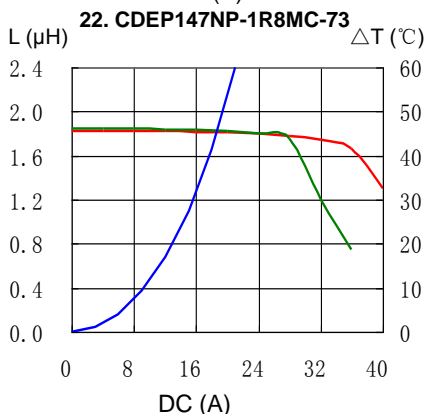
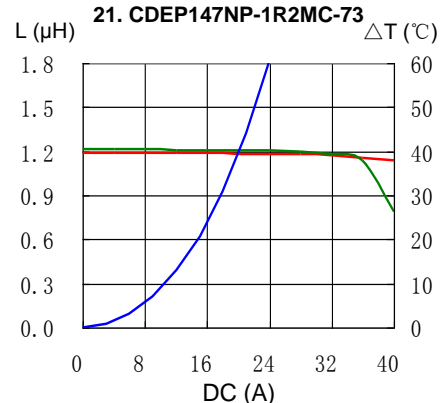
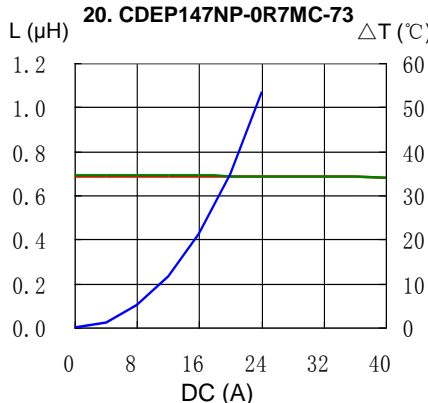
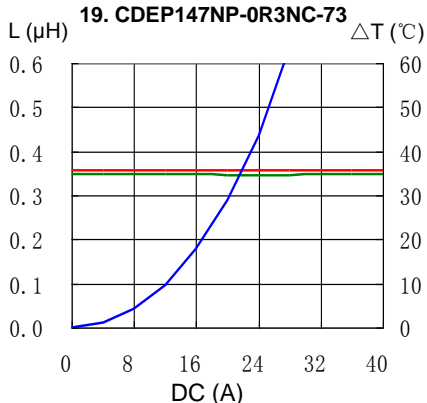
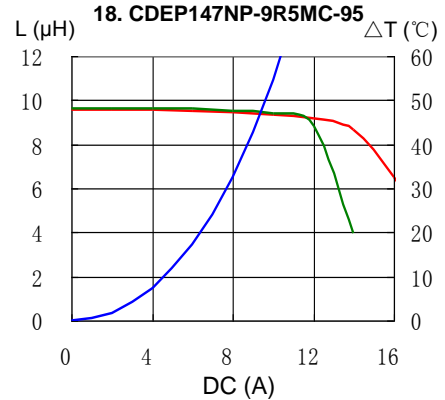
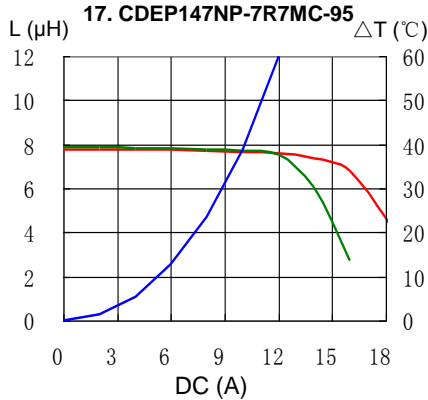
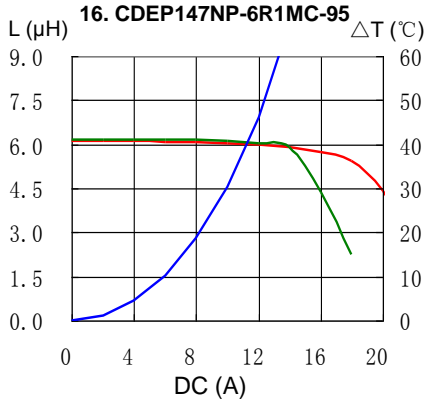
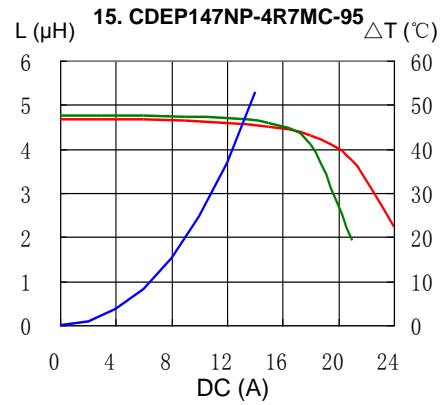
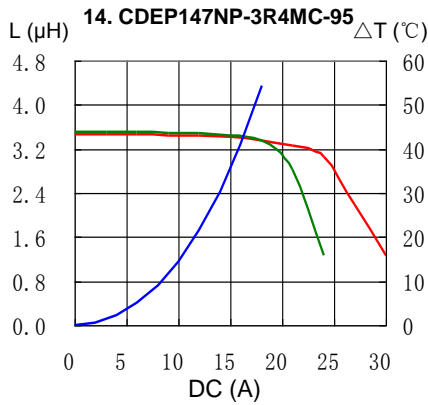
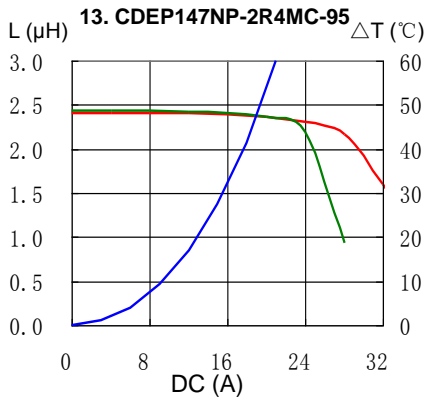
— L (20°C) — L (100°C) — ΔT





Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

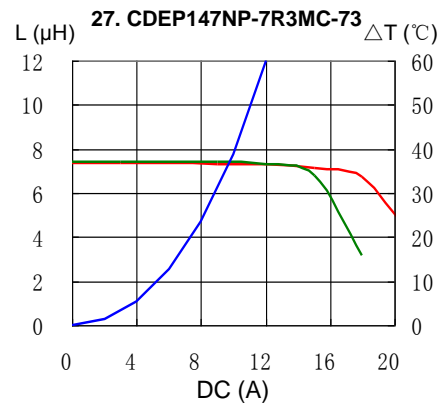
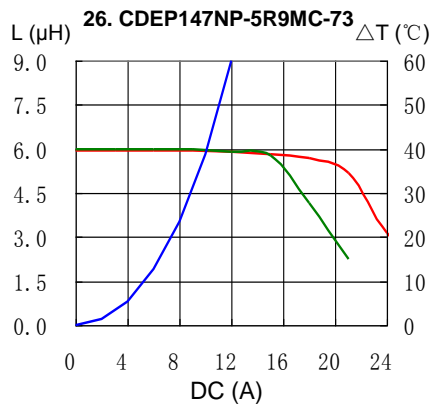
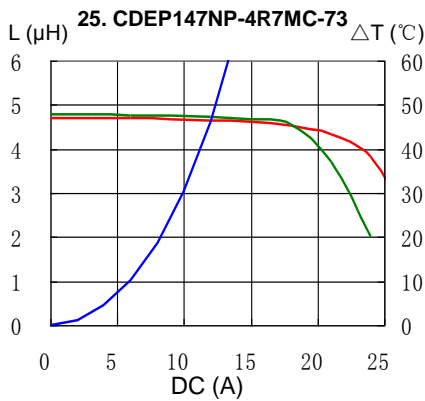


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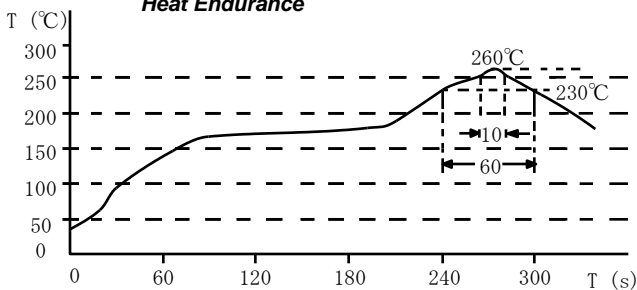
Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

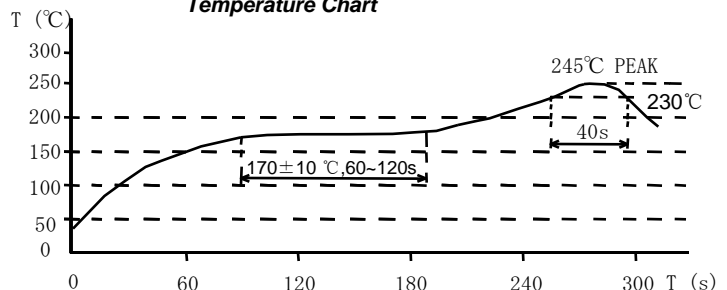


Solder Reflow Condition

Heat Endurance



Temperature Chart



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