

SMD Power Inductor CDRH127/HP



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.5 × 12.5 × 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 ~ +125°C
- Solder reflow temperature: 260 °C peak.

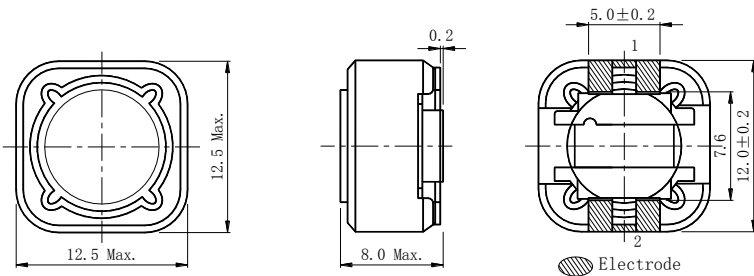
Packaging

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

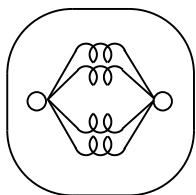
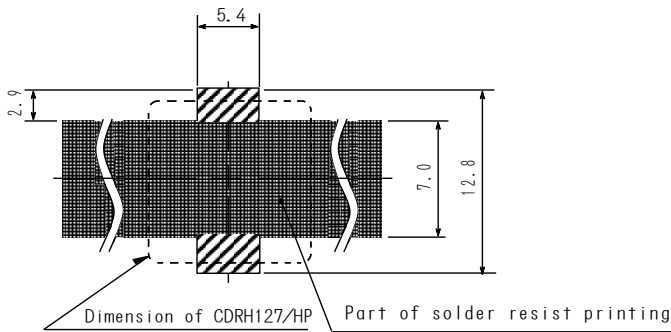
Applications

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

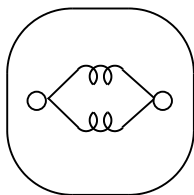
Dimension - [mm]



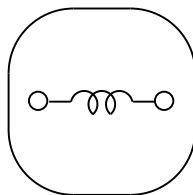
Land pattern and Schematics - [mm]



2.4 μH ~ 56 μH



68 μH ~ 150 μH



180 μH ~ 1.0mH

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Electrical Characteristics

Part No.	Inductance (μH) [Within] ※1	D.C.R. (Ω) [Max.](Typ.) (at 20°C)	Saturation current (A) ※2 (at 20°C)	Temperature rise current (A) ※3
CDRH127/HPNP-2R4NC	2.4 ^{+40%} _{-20%}	11.3m(9.0m)	13.60(17.00)	7.70(8.95)
CDRH127/HPNP-3R5NC	3.5 ^{+40%} _{-20%}	12.5m(10.0m)	12.24(15.30)	7.30(8.30)
CDRH127/HPNP-4R7NC	4.7 ^{+40%} _{-20%}	18.8m(15.0m)	10.80(13.50)	6.01(6.85)
CDRH127/HPNP-6R1NC	6.1 ^{+40%} _{-20%}	21.3m(17.0m)	9.12(11.40)	5.50(6.25)
CDRH127/HPNP-7R6NC	7.6 ^{+40%} _{-20%}	23.8m(19.0m)	8.16(10.20)	5.25(6.00)
CDRH127/HPNP-100MC	10 \pm 20%	26.3m(21.0m)	6.72(8.40)	4.90(5.60)
CDRH127/HPNP-120MC	12 \pm 20%	28.8m(23.0m)	6.56(8.20)	4.70(5.40)
CDRH127/HPNP-150MC	15 \pm 20%	31.3m(25.0m)	6.16(7.70)	4.50(5.10)
CDRH127/HPNP-180MC	18 \pm 20%	33.8m(27.0m)	5.68(7.10)	4.15(4.80)
CDRH127/HPNP-220MC	22 \pm 20%	48.8m(39.0m)	5.60(7.00)	3.73(4.20)
CDRH127/HPNP-270MC	27 \pm 20%	56.3m(45.0m)	4.96(6.20)	3.60(4.10)
CDRH127/HPNP-330MC	33 \pm 20%	77.5m(62.0m)	4.32(5.40)	2.90(3.30)
CDRH127/HPNP-390MC	39 \pm 20%	83.8m(67.0m)	3.92(4.90)	2.98(3.39)
CDRH127/HPNP-470MC	47 \pm 20%	93.8m(75.0m)	3.40(4.25)	2.70(3.10)
CDRH127/HPNP-560MC	56 \pm 20%	0.105(84.0m)	3.36(4.20)	2.50(2.85)
CDRH127/HPNP-680MC	68 \pm 20%	0.135(0.108)	3.20(4.00)	2.25(2.55)
CDRH127/HPNP-820MC	82 \pm 20%	0.148(0.118)	2.88(3.60)	2.25(2.55)
CDRH127/HPNP-101MC	100 \pm 20%	0.253(0.202)	2.52(3.15)	1.56(1.80)
CDRH127/HPNP-121MC	120 \pm 20%	0.278(0.222)	2.44(3.05)	1.55(1.78)
CDRH127/HPNP-151MC	150 \pm 20%	0.314(0.251)	2.08(2.60)	1.42(1.62)
CDRH127/HPNP-181MC	180 \pm 20%	0.319(0.255)	1.94(2.42)	1.45(1.65)
CDRH127/HPNP-221MC	220 \pm 20%	0.359(0.287)	1.82(2.27)	1.40(1.60)
CDRH127/HPNP-271MC	270 \pm 20%	0.533(0.426)	1.64(2.05)	1.10(1.25)
CDRH127/HPNP-331MC	330 \pm 20%	0.579(0.463)	1.46(1.82)	1.05(1.20)
CDRH127/HPNP-391MC	390 \pm 20%	0.668(0.534)	1.33(1.66)	1.05(1.18)
CDRH127/HPNP-471MC	470 \pm 20%	0.839(0.671)	1.28(1.60)	0.92(1.04)
CDRH127/HPNP-561MC	560 \pm 20%	0.950(0.760)	1.15(1.44)	0.84(0.94)
CDRH127/HPNP-681MC	680 \pm 20%	1.31(1.09)	0.98(1.22)	0.72(0.80)
CDRH127/HPNP-821MC	820 \pm 20%	1.42(1.18)	0.94(1.18)	0.68(0.78)
CDRH127/HPNP-102MC	1000 \pm 20%	1.61(1.34)	0.88(1.10)	0.62(0.70)

※1. Inductance measuring condition: at 1.2 μH ~ 7.6 μH at 100kHz
10 μH ~ 1.0mH at 1kHz

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

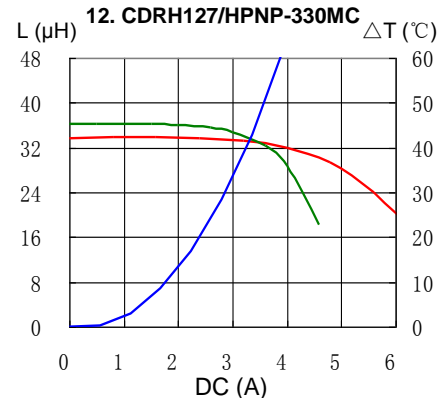
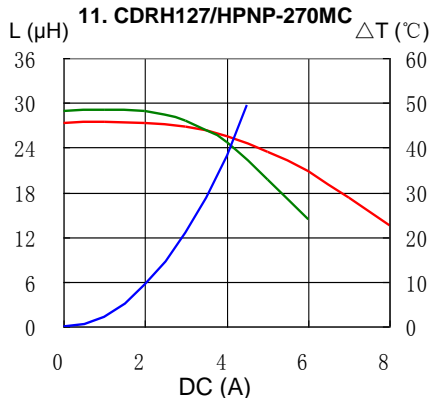
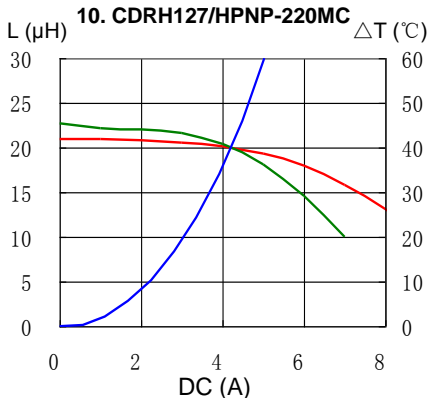
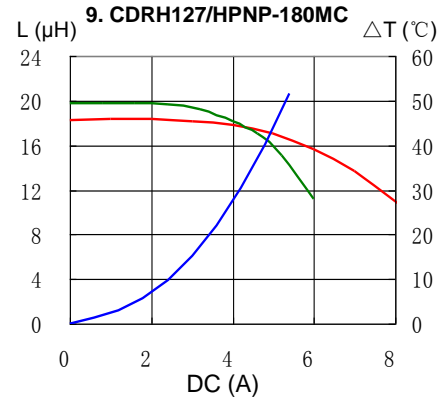
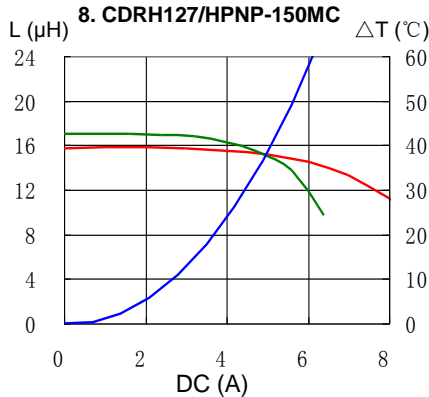
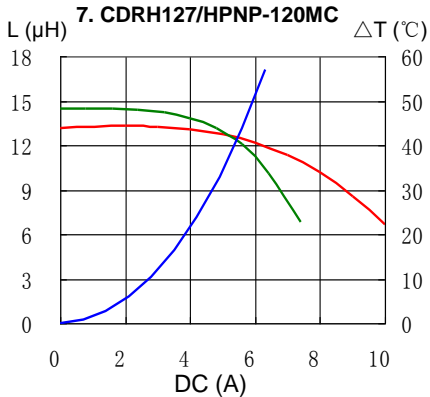
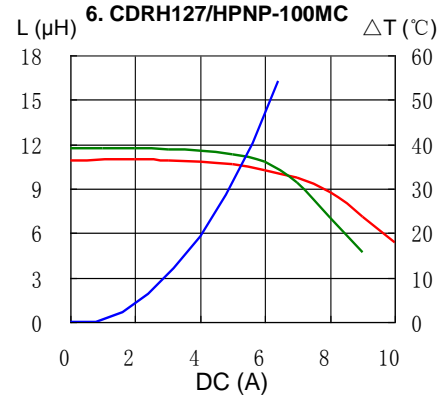
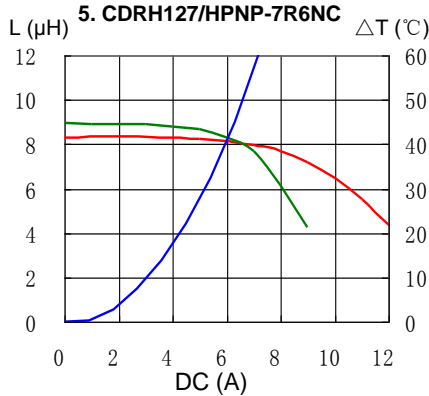
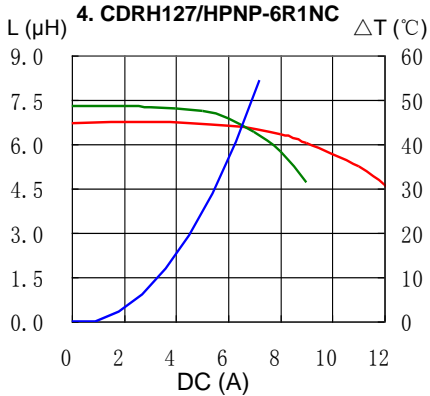
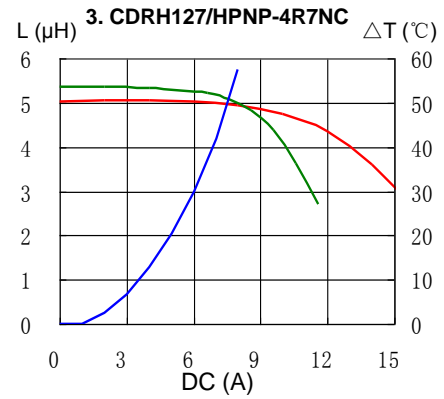
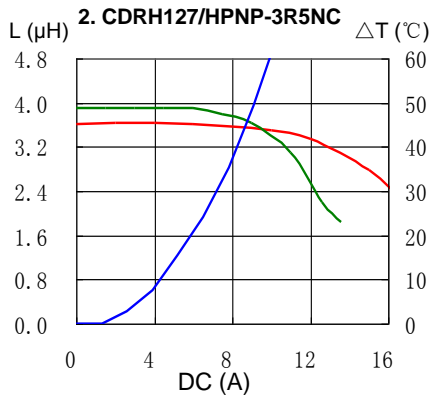
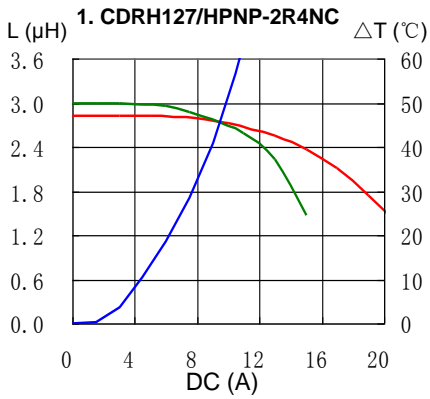
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t=40^\circ\text{C}$ ($T_a=20^\circ\text{C}$).

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Saturation Current & Temperature Rise Graph

— L (25°C) — L (125°C) — ΔT

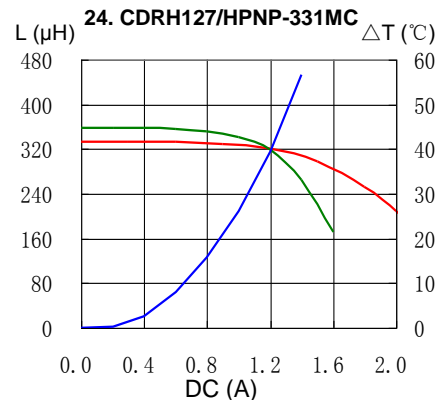
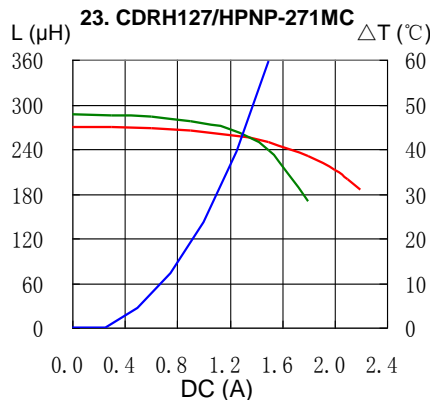
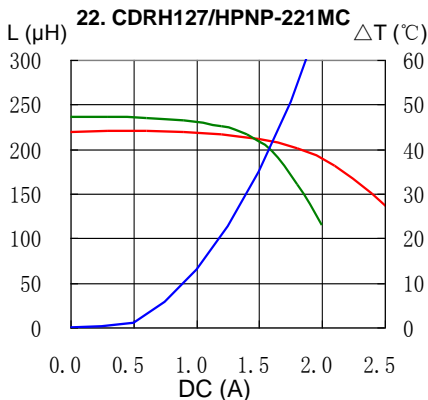
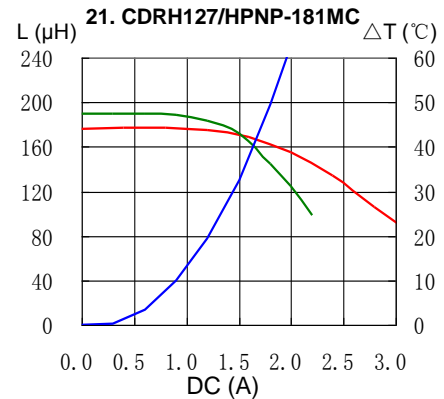
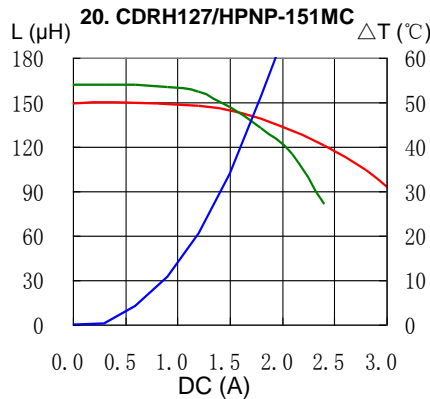
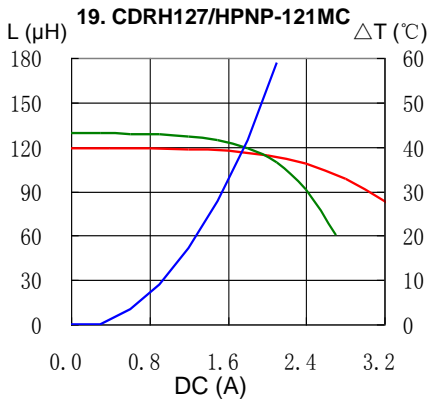
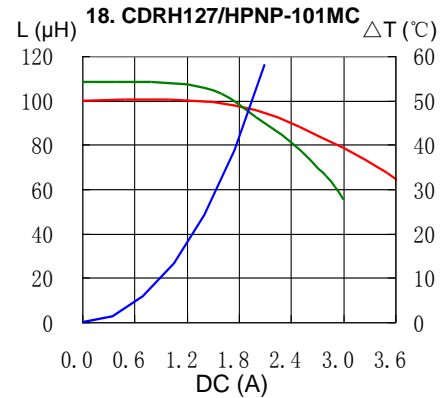
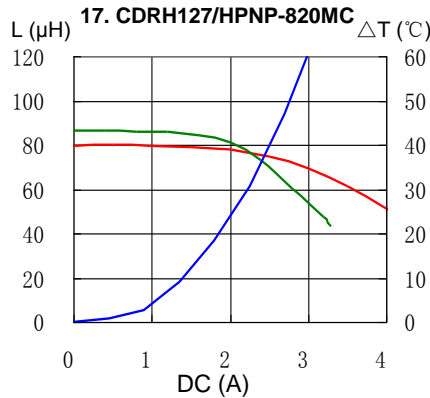
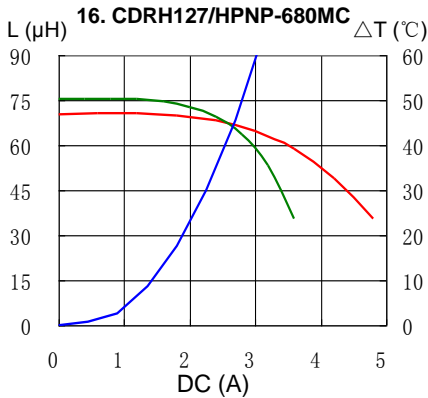
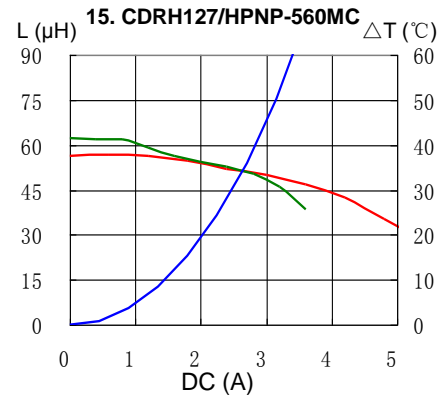
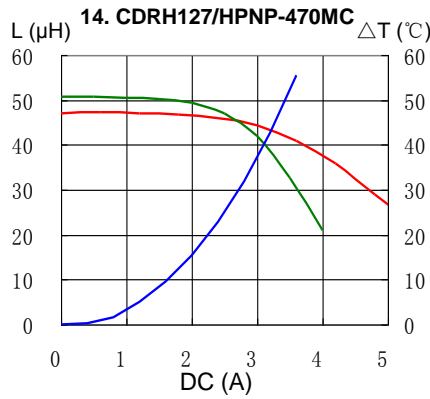
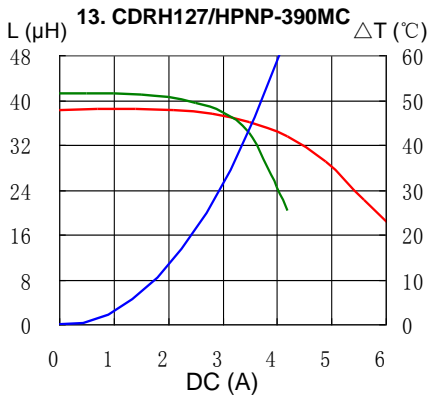


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Saturation Current & Temperature Rise Graph

— L (25°C) — L (125°C) — ΔT

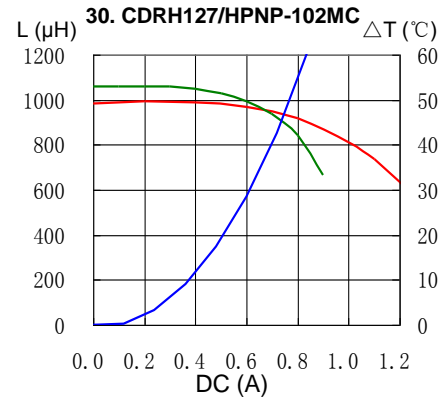
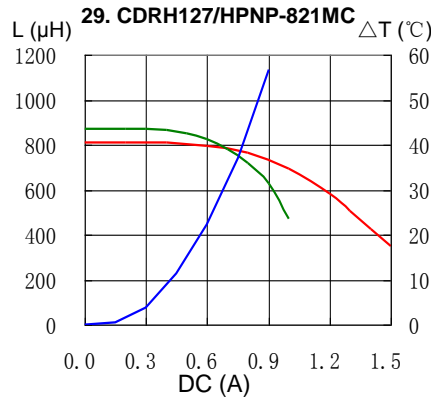
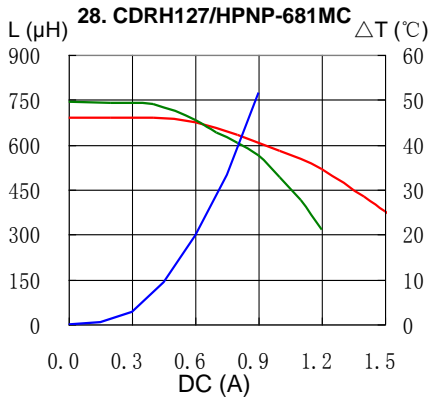
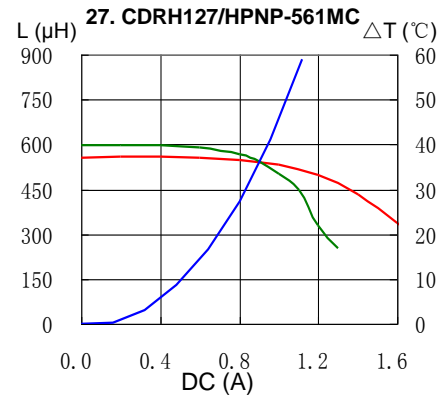
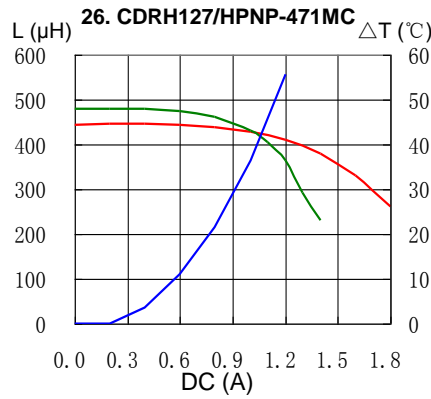
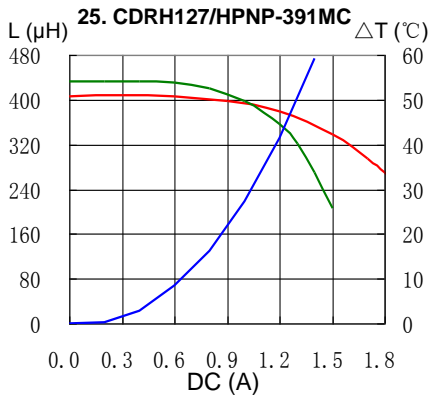


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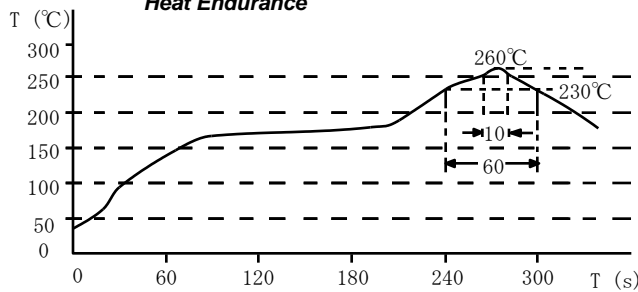
Saturation Current & Temperature Rise Graph

— L (25°C) — L (125°C) — ΔT

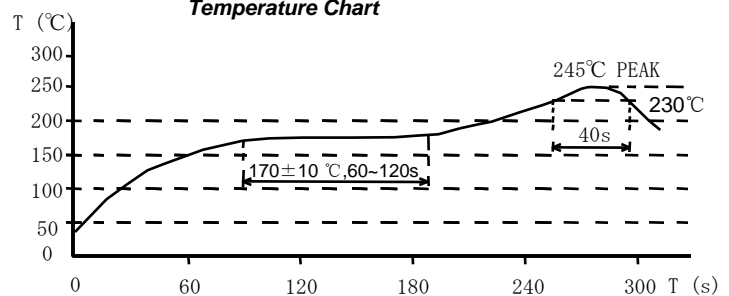


Solder Reflow Condition

Heat Endurance



Temperature Chart



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

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