

# SMD Power Inductor CDRH127/LD



## 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.

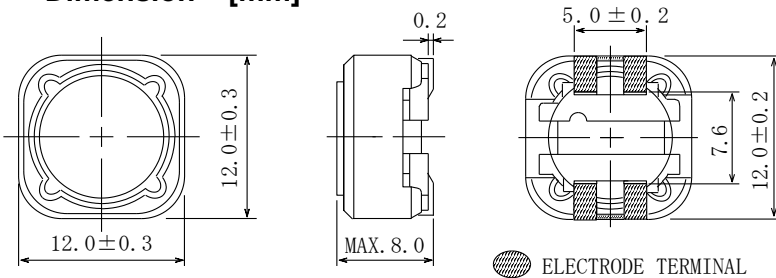
## Packaging

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

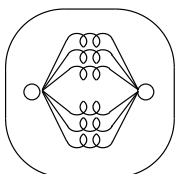
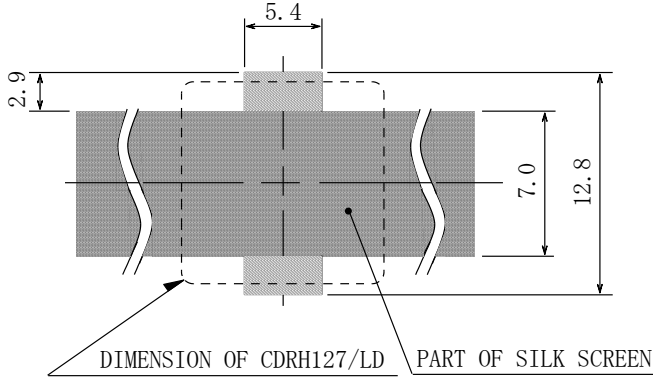
## Applications

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

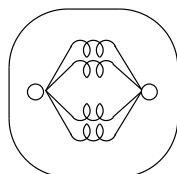
## Dimension - [mm]



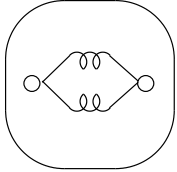
## Land pattern and Schematics - [mm]



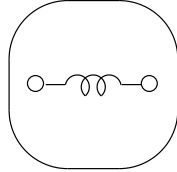
1.0  $\mu$ H



2.4  $\mu$ H ~ 56  $\mu$ H



68  $\mu$ H ~ 150  $\mu$ H



180  $\mu$ H ~ 1 mH

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## Electrical Characteristics

Part No.	Inductance ( $\mu$ H)	D.C.R. ( $\Omega$ ) Max.(Typ.)	Saturation Current (A) Max. (Typ.) ※2	Temperature Rise Current (A) (Typ.) ※3
CDRH127LDNP-1R0NC	1.0 $\pm$ 30%	6.50m(5.00m)	21.8(27.2)	(15.8)
CDRH127LDNP-2R4NC	2.4 $\pm$ 30%	10.5m(8.10m)	14.2(17.7)	(11.5)
CDRH127LDNP-3R6NC	3.5 $\pm$ 30%	12.4m(9.50m)	11.8(14.7)	(10.3)
CDRH127LDNP4R6NC	4.6 $\pm$ 30%	13.8m(10.6m)	10.4(13.0)	(10.1)
CDRH127LDNP-5R8NC	5.8 $\pm$ 30%	16.2m(12.4m)	9.00(11.2)	(9.60)
CDRH127LDNP-7R4NC	7.4 $\pm$ 30%	17.7m(13.6m)	8.40(10.5)	(8.70)
CDRH127LDNP-100MC	10 $\pm$ 20%	19.5m(15.0m)	6.70(8.40)	(7.80)
CDRH127LDNP-120MC	12 $\pm$ 20%	21.3m(16.4m)	6.45(7.50)	(7.40)
CDRH127LDNP-150MC	15 $\pm$ 20%	26.4m(20.3m)	5.65(6.80)	(7.10)
CDRH127LDNP-180MC	18 $\pm$ 20%	28.0m(21.5m)	5.10(6.70)	(6.60)
CDRH127LDNP-220MC	22 $\pm$ 20%	36.4m(28.0m)	4.70(5.80)	(6.30)
CDRH127LDNP-270mC	27 $\pm$ 20%	41.6 m(32.0m)	4.20(5.40)	(5.70)
CDRH127LDNP-330MC	33 $\pm$ 20%	53.3m(41.0m)	3.90(4.80)	(5.10)
CDRH127LDNP-390MC	39 $\pm$ 30%	60.5m(46.5m)	3.50(4.40)	(4.50)
CDRH127LDNP-470MC	47 $\pm$ 30%	78.0m(60.0m)	3.25(4.10)	(4.10)
CDRH127LDNP-560MC	56 $\pm$ 20%	90.0m(69.0m)	2.90(3.60)	(3.60)
CDRH127LDNP-680MC	68 $\pm$ 20%	120m(92.0m)	2.60(3.40)	(3.20)
CDRH127LDNP-820MC	82 $\pm$ 20%	119m(910m)	2.40(2.85)	(2.95)
CDRH127LDNP-101MC	100 $\pm$ 20%	151m(119m)	2.10(2.70)	(2.60)
CDRH127LDNP-121MC	120 $\pm$ 20%	169m(130m)	1.90(2.60)	(2.40)
CDRH127LDNP-151MC	150 $\pm$ 20%	227m(174m)	1.80(2.15)	(2.15)
CDRH127LDNP-181NC	180 $\pm$ 20%	299m(230m)	1.55(2.05)	(1.90)
CDRH127LDNP-221MC	220 $\pm$ 20%	338m(260m)	1.45(1.90)	(1.75)
CDRH127LDNP-271MC	270 $\pm$ 20%	419m(322m)	1.30(1.60)	(1.60)
CDRH127LDNP-331MC	330 $\pm$ 20%	471m(362m)	1.20(1.45)	(1.50)
CDRH127LDNP-391MC	390 $\pm$ 20%	572m(440m)	1.10(1.40)	(1.40)
CDRH127LDNP-471MC	470 $\pm$ 20%	741m(570m)	1.00(1.30)	(1.25)
CDRH127LDNP-561MC	560 $\pm$ 20%	852m(655m)	950m(1.12)	(1.10)
CDRH127LDNP-681MC	680 $\pm$ 20%	1.13(870m)	850m(1.10)	(1.03)
CDRH127LDNP-821MC	820 $\pm$ 20%	1.24(950m)	750m(920m)	(920m)
CDRH127LDNP-102MC	1000 $\pm$ 20%	1.50(1.15)	700m(860m)	(850m)

※1 Measuring frequency (L): 1.0 $\mu$ H - 7.4 $\mu$ H (100kHz), 10 $\mu$ H - 1.0mH (1kHz)

※2 Saturation current: This indicates the actual value of D.C. current when the inductance becomes 25% lower than its initial value.

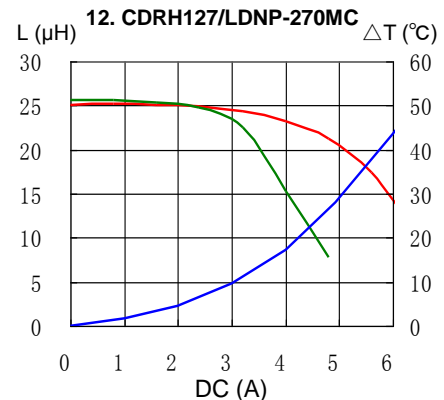
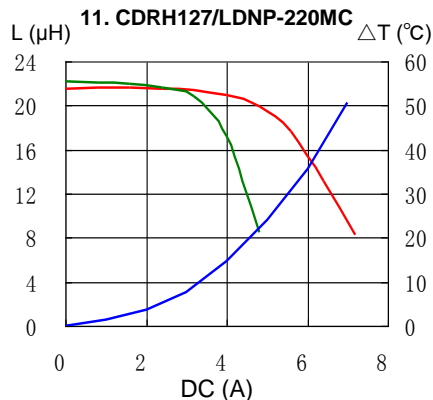
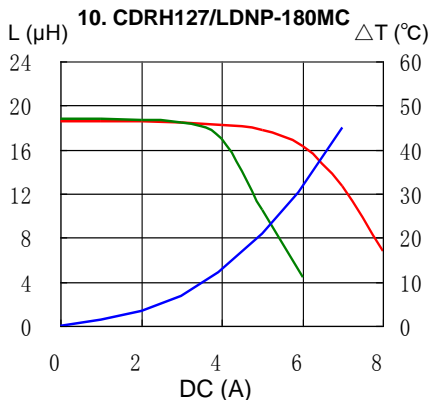
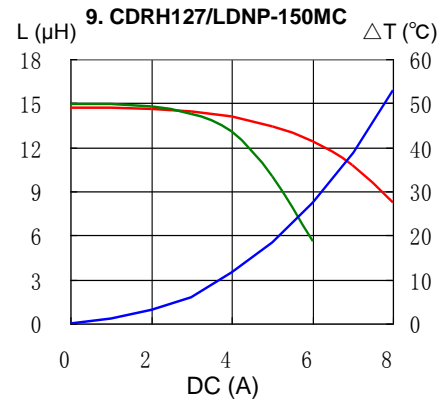
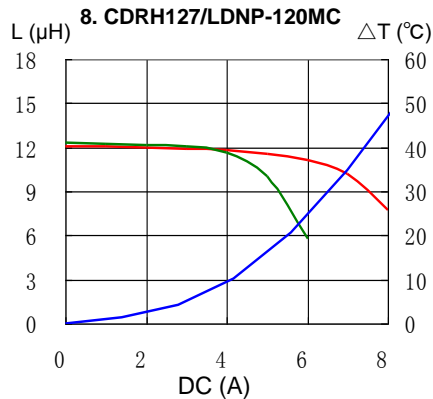
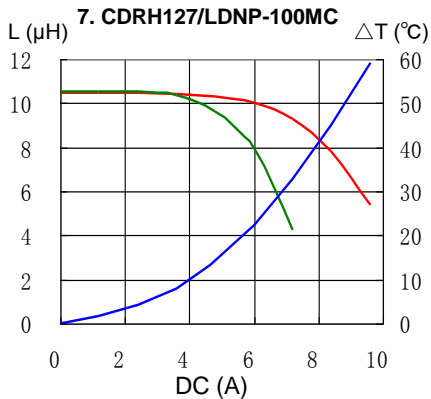
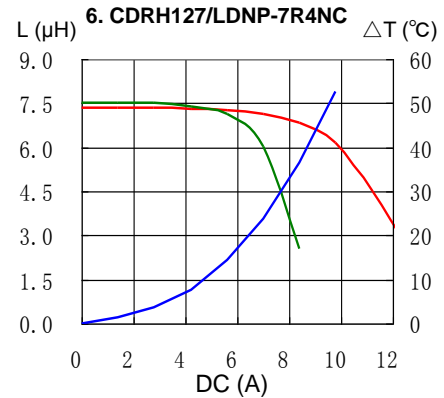
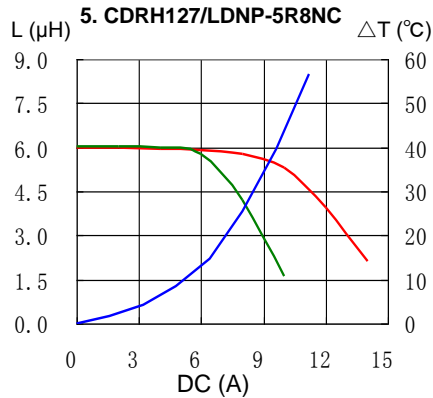
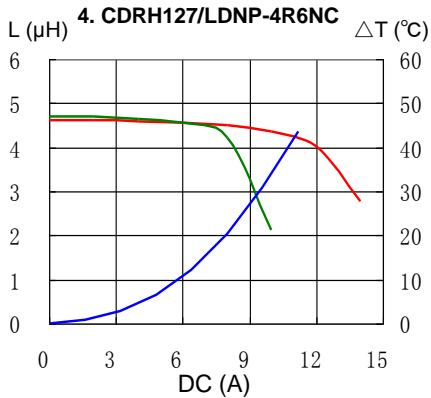
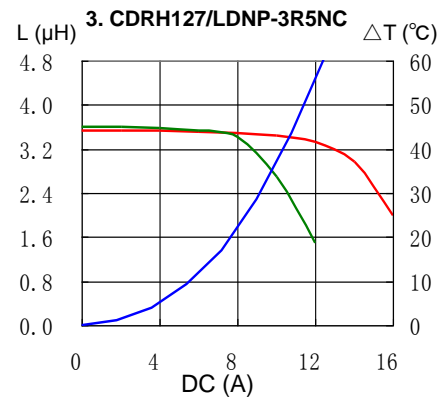
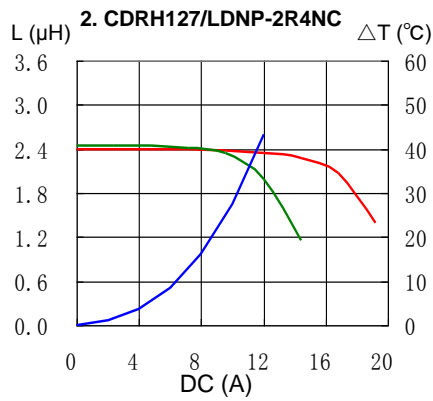
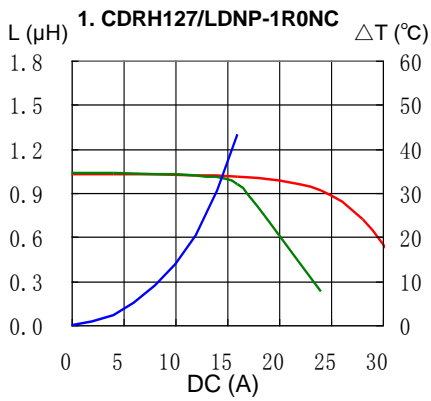
※3 Temperature rise current: The actual value of D.C. current when the temperature of coil becomes  $\Delta T=40^{\circ}\text{C}$ . ( $T_a=20^{\circ}\text{C}$ )

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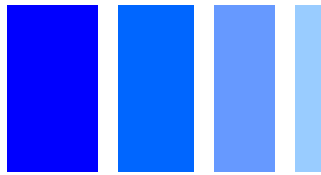


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

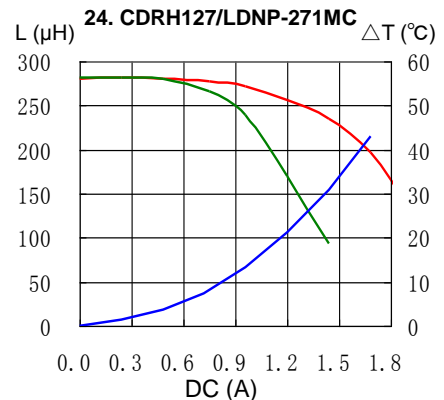
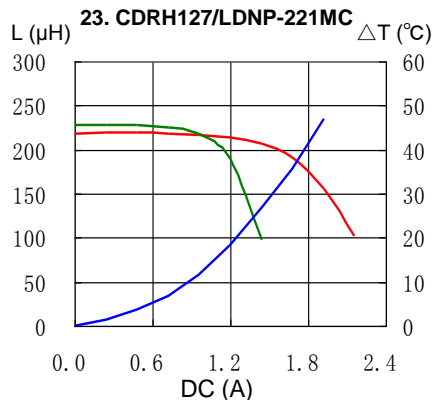
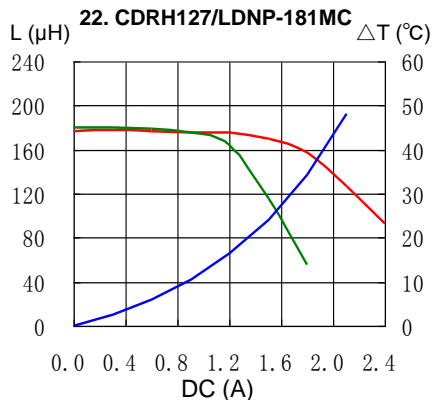
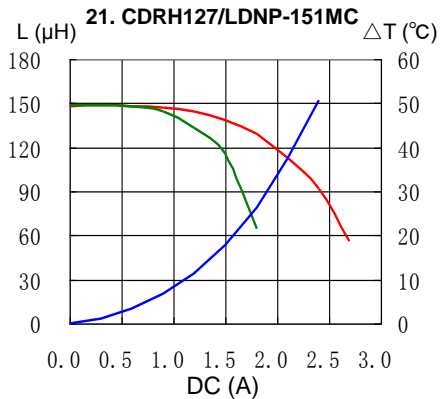
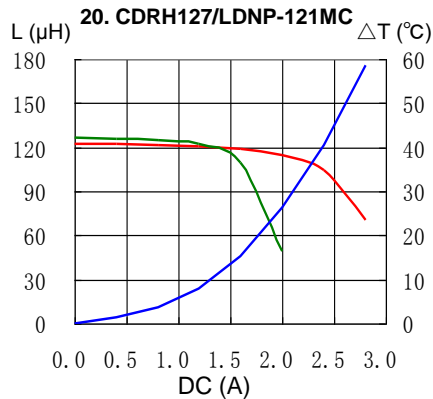
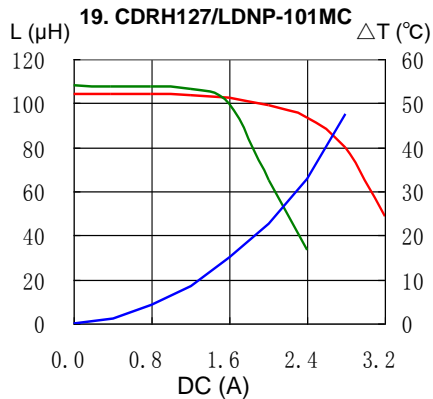
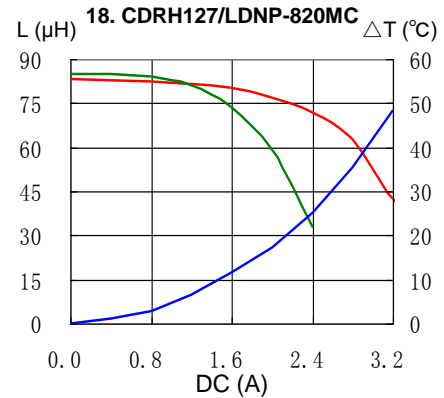
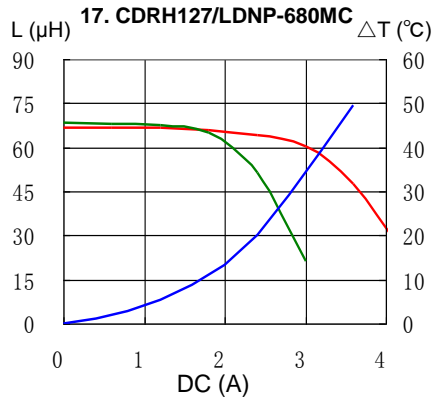
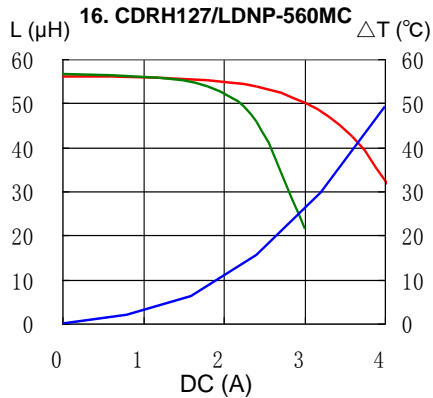
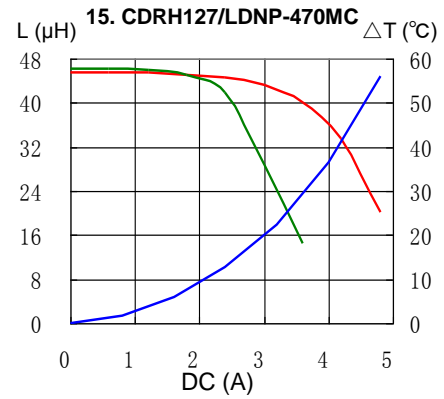
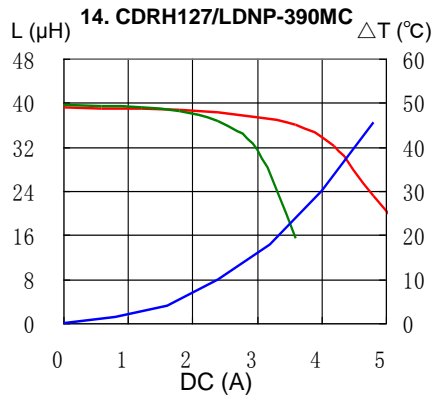
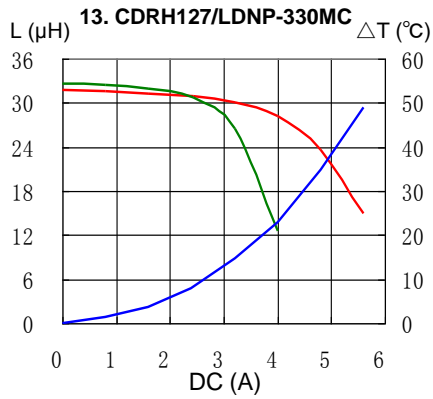


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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

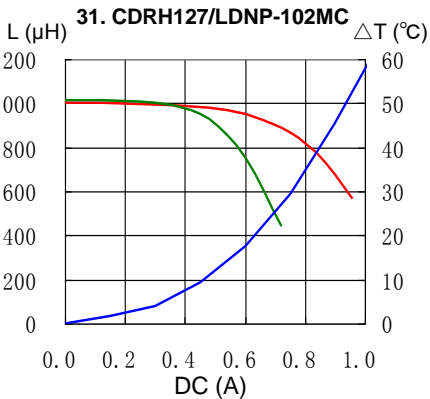
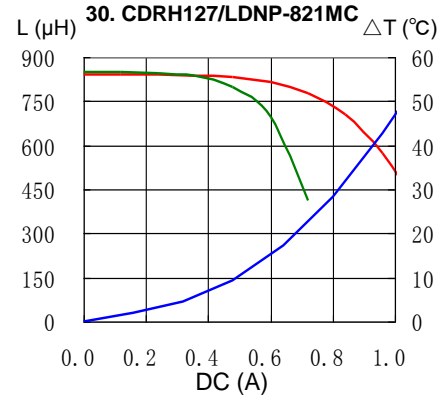
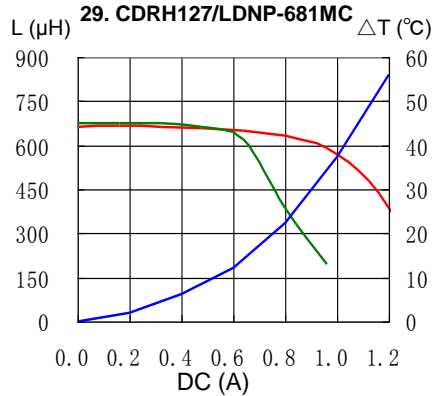
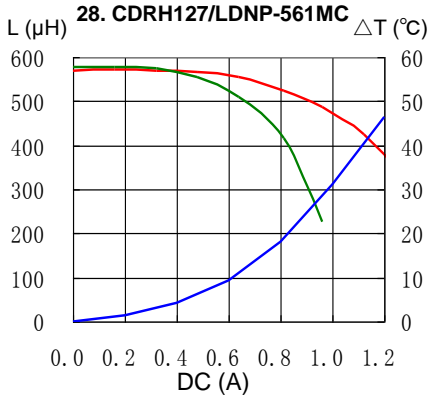
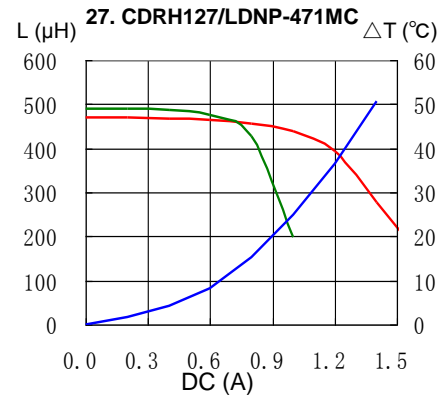
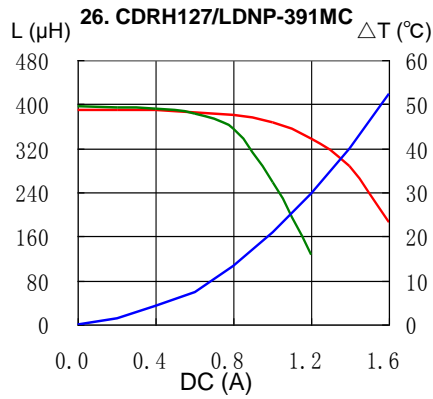
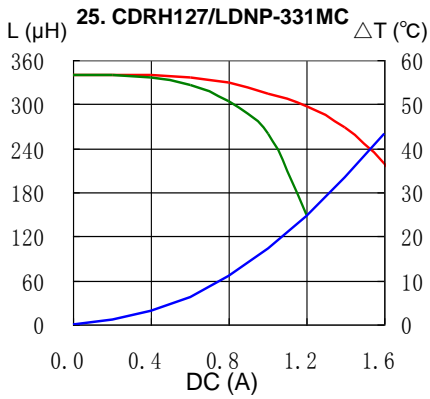


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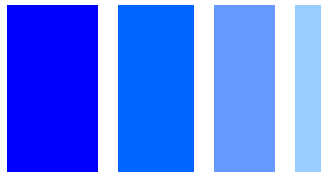


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

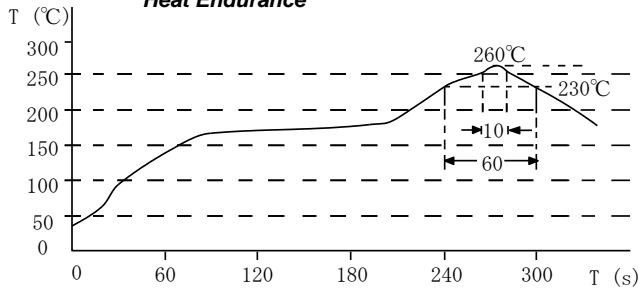


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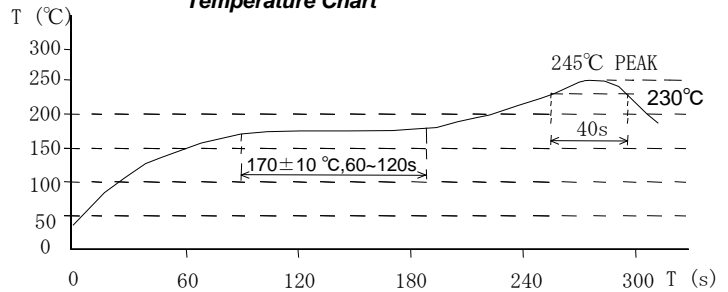


## Solder Reflow Condition

Heat Endurance



Temperature Chart



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

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