

# SMD Power Inductor CR105



## Description

- Ferrite drum core construction.
- Magnetically unshielded.
- L × W × H: 10.4 × 9.5 × 5.8 mm Max.
- Product weight: 1.3g(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.

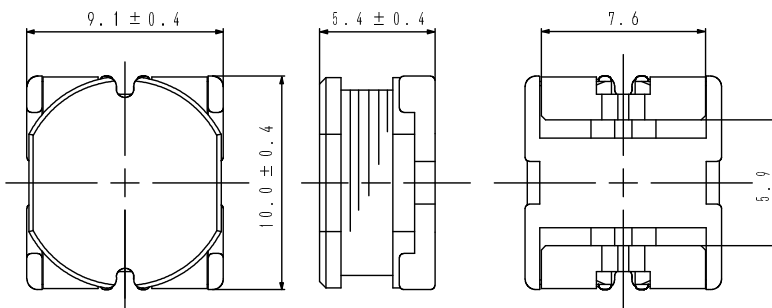
## Packaging

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

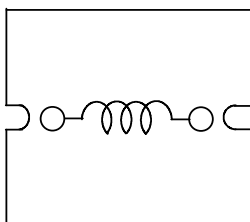
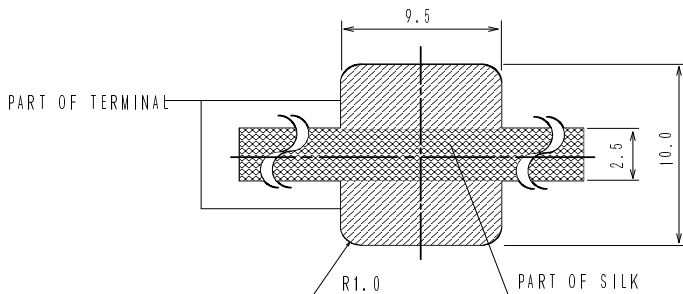
## Applications

- Ideally used in Projector, PDA, DSC/DVC, Game Machine, DVD, STB, Notebook PC etc as DC-DC converter inductors.

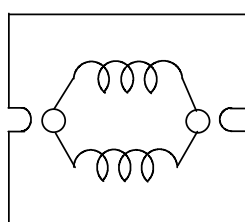
## Dimension - [mm]



## Land pattern and Schematics - [mm]



10  $\mu$  H ~ 820  $\mu$  H



1.8  $\mu$  H ~ 8.6  $\mu$  H

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## Electrical Characteristics

Part Name	Stamp	Inductance ( $\mu$ H) [ within ]※ 1	D.C.R. ( $\Omega$ ) [Max.] at 20°C	Rated Current (A) ※ 2
CR105NP-1R8MC	1R8M	1.8 $\pm$ 20%	13.0m	6.0
CR105NP-2R5MC	2R5M	2.5 $\pm$ 20%	15.6m	5.5
CR105NP-3R3MC	3R3M	3.3 $\pm$ 20%	18.2m	5.0
CR105NP-4R2MC	4R2M	4.2 $\pm$ 20%	20.8m	4.5
CR105NP-5R1MC	5R1M	5.1 $\pm$ 20%	23.4m	4.0
CR105NP-6R3MC	6R3M	6.3 $\pm$ 20%	26.0m	3.6
CR105NP-7R5MC	7R5M	7.5 $\pm$ 20%	28.6m	3.3
CR105NP-8R6MC	8R6M	8.6 $\pm$ 20%	32.5m	3.0
CR105NP-100MC	100M	10 $\pm$ 20%	0.06	2.6
CR105NP-120MC	120M	12 $\pm$ 20%	0.07	2.45
CR105NP-150MC	150M	15 $\pm$ 20%	0.08	2.27
CR105NP-180MC	180M	18 $\pm$ 20%	0.09	2.15
CR105NP-220MC	220M	22 $\pm$ 20%	0.10	1.95
CR105NP-270MC	270M	27 $\pm$ 20%	0.11	1.76
CR105NP-330MC	330M	33 $\pm$ 20%	0.12	1.50
CR105NP-390MC	390M	39 $\pm$ 20%	0.14	1.37
CR105NP-470KC	470K	47 $\pm$ 10%	0.17	1.28
CR105NP-560KC	560K	56 $\pm$ 10%	0.19	1.17
CR105NP-680KC	680K	68 $\pm$ 10%	0.22	1.11
CR105NP-820KC	820K	82 $\pm$ 10%	0.25	1.00
CR105NP-101KC	101K	100 $\pm$ 10%	0.35	0.97
CR105NP-121KC	121K	120 $\pm$ 10%	0.40	0.89
CR105NP-151KC	151K	150 $\pm$ 10%	0.47	0.78
CR105NP-181KC	181K	180 $\pm$ 10%	0.63	0.72
CR105NP-221KC	221K	220 $\pm$ 10%	0.73	0.66
CR105NP-271KC	271K	270 $\pm$ 10%	0.97	0.57
CR105NP-331KC	331K	330 $\pm$ 10%	1.15	0.52
CR105NP-391KC	391K	390 $\pm$ 10%	1.30	0.48
CR105NP-471KC	471K	470 $\pm$ 10%	1.48	0.42
CR105NP-561KC	561K	560 $\pm$ 10%	1.90	0.33
CR105NP-681KC	681K	680 $\pm$ 10%	2.25	0.28
CR105NP-821KC	821K	820 $\pm$ 10%	2.55	0.24

※ 1 .Inductance measuring frequency: 1.8  $\mu$  H  $\sim$  8.6  $\mu$  H ; at 7.96 MHz  
 10  $\mu$  H  $\sim$  82  $\mu$  H ; at 2.52 MHz  
 100  $\mu$  H  $\sim$  820  $\mu$  H ; at 1 kHz

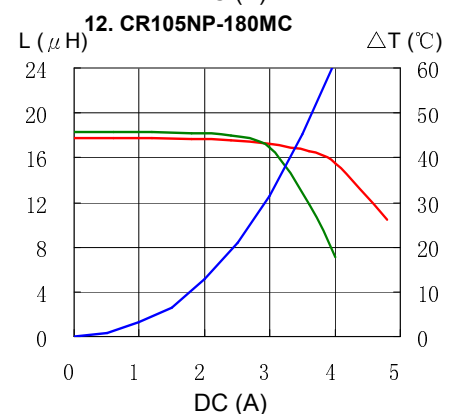
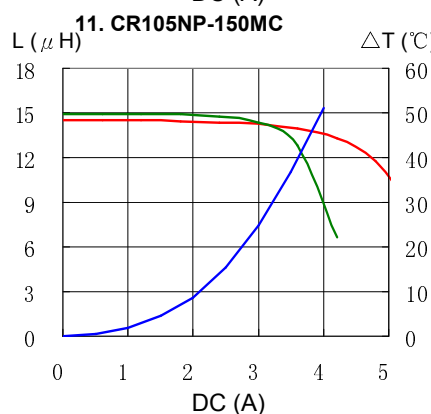
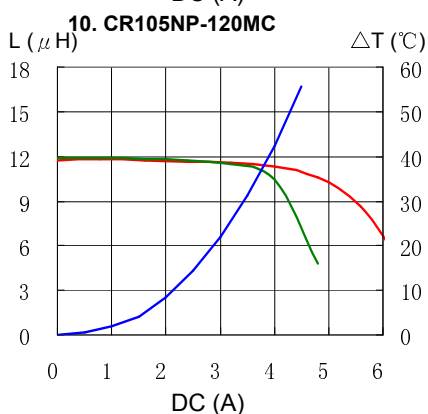
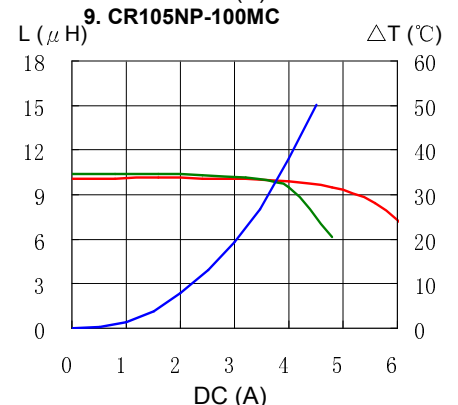
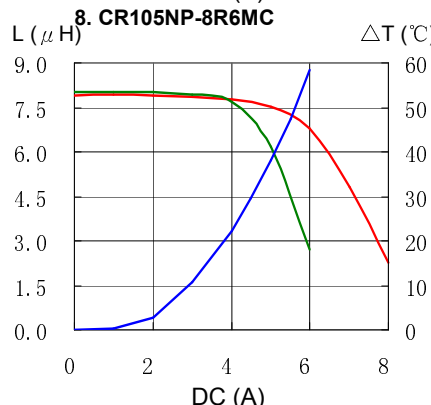
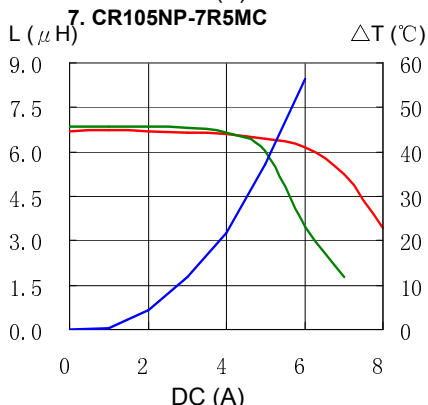
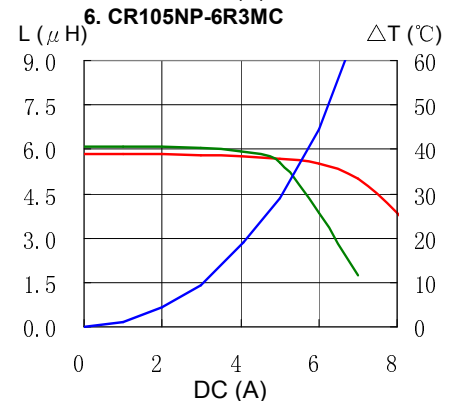
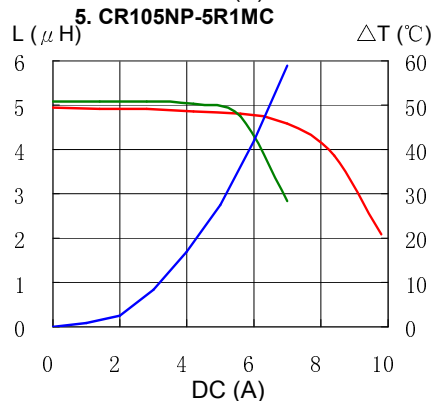
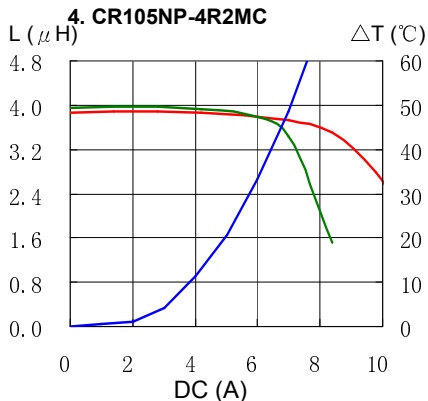
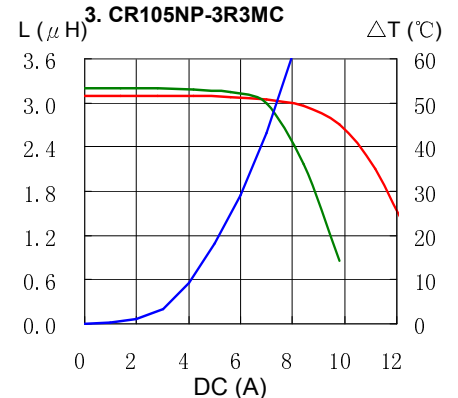
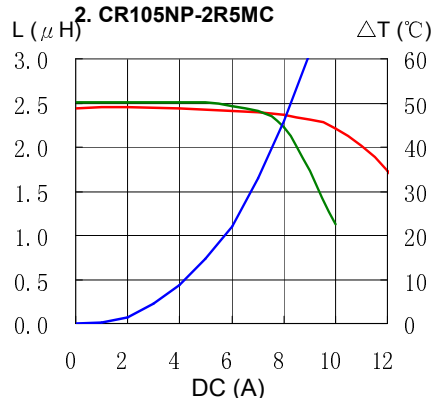
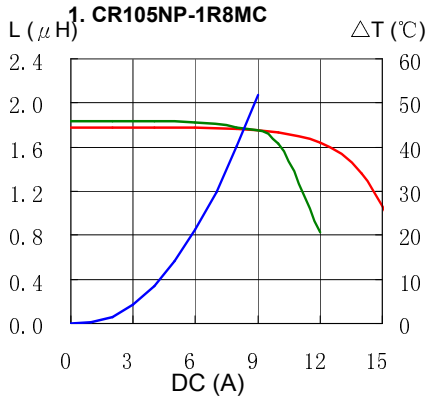
※2. Rated current: The D.C. current at which the inductance decreases to 90% of it's initial value or when  $\Delta t=40^\circ\text{C}$ , whichever is lower (Ta=20°C).

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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

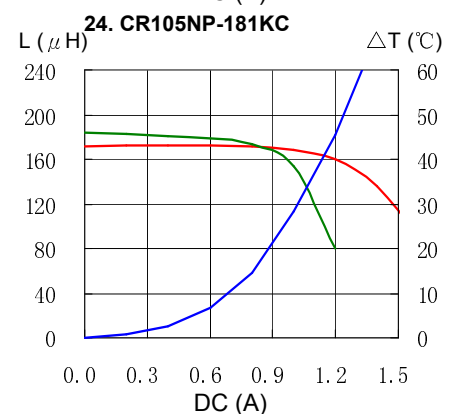
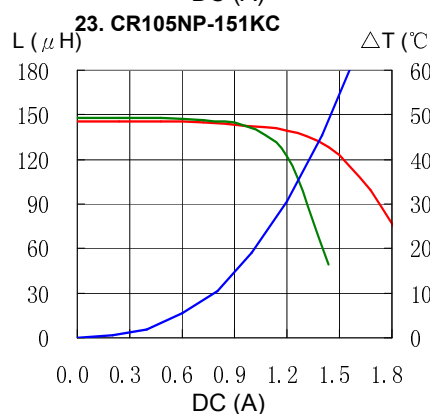
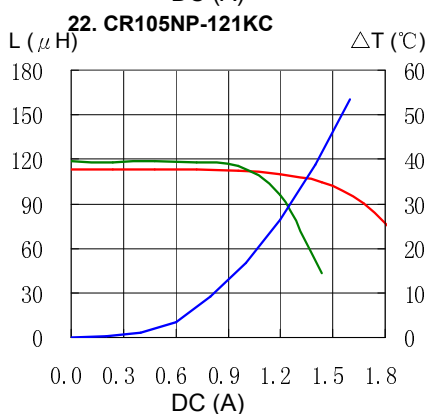
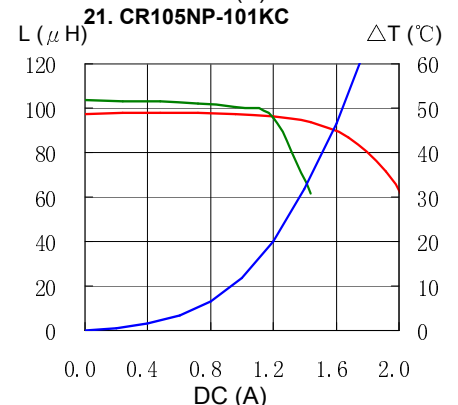
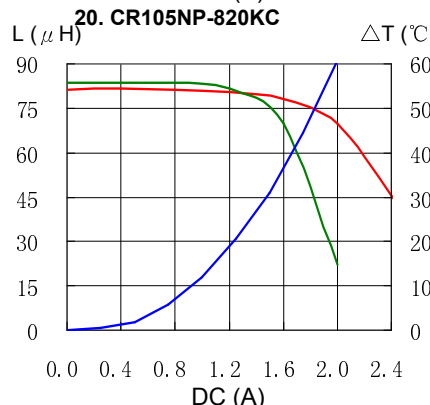
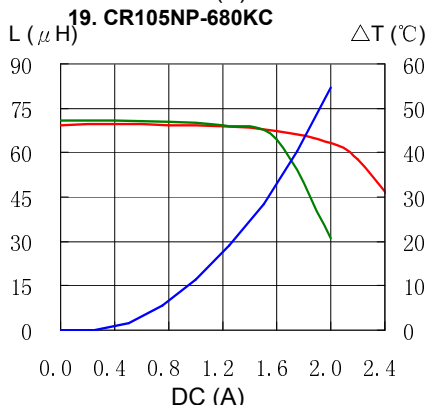
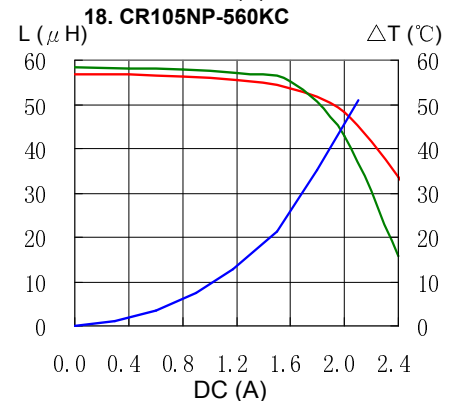
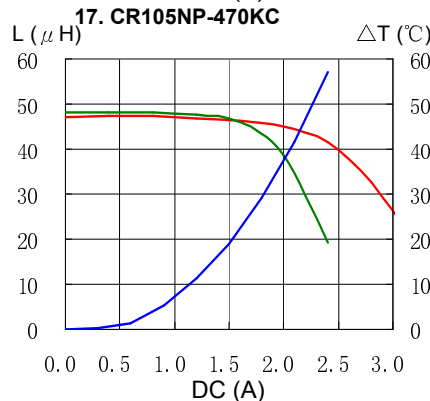
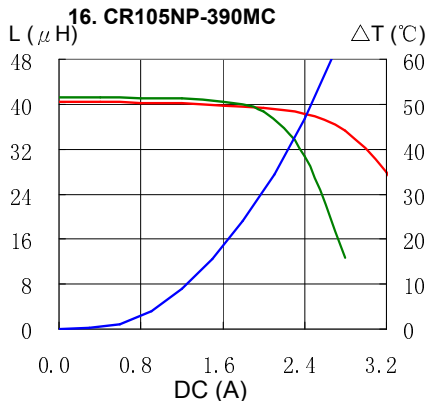
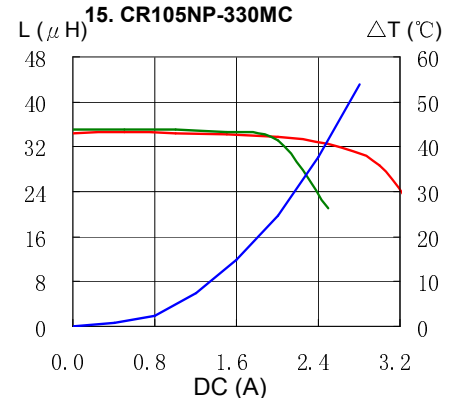
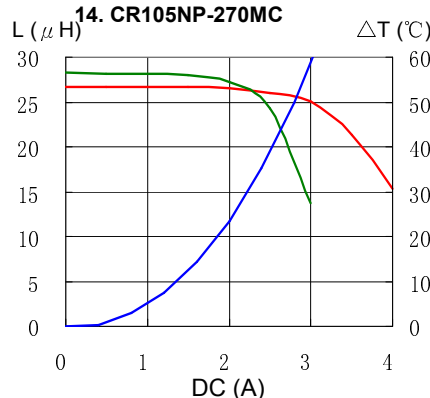
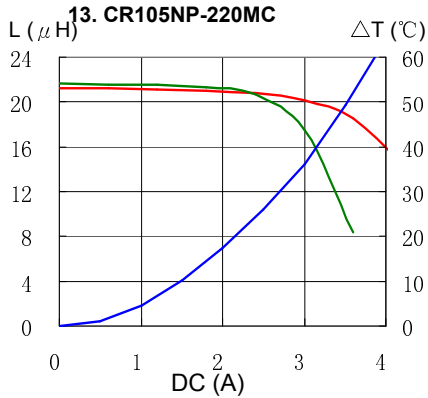


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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

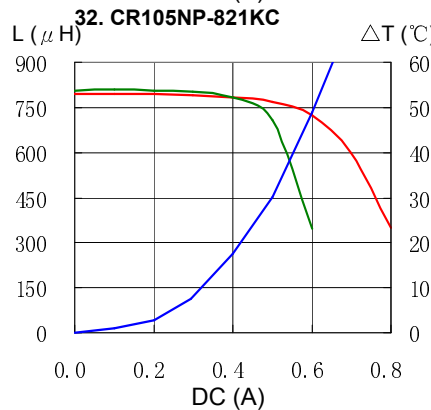
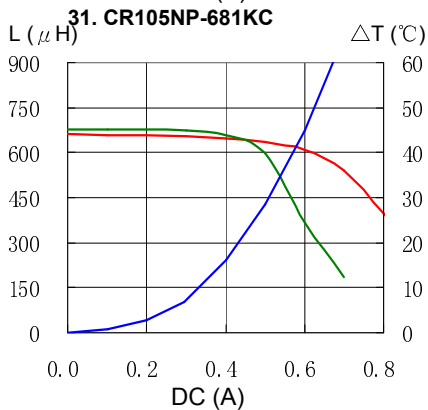
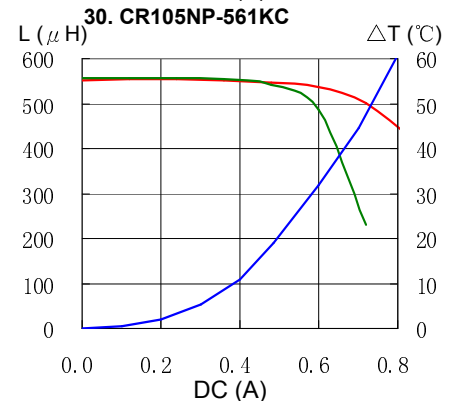
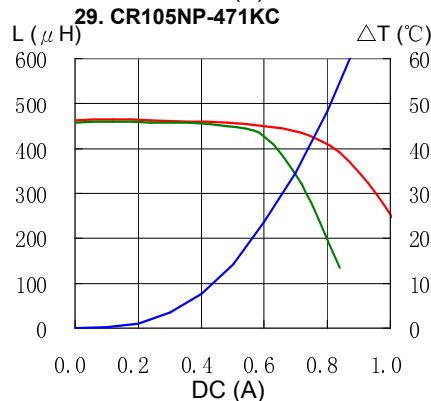
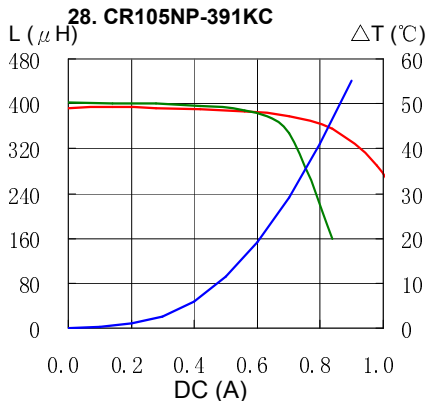
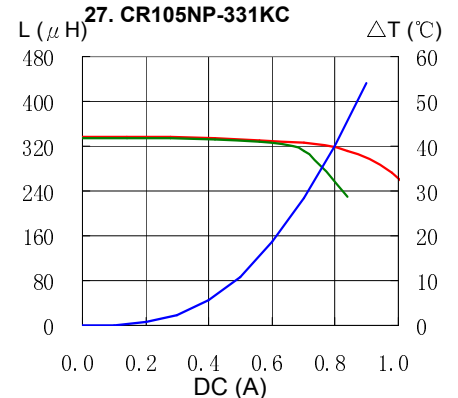
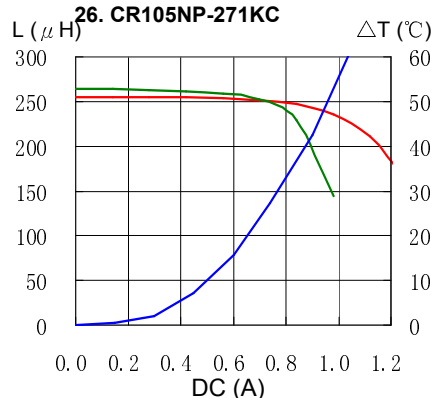
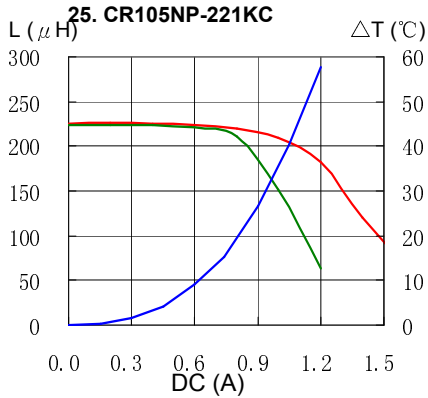


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## Saturation Current & Temperature Rise Graph

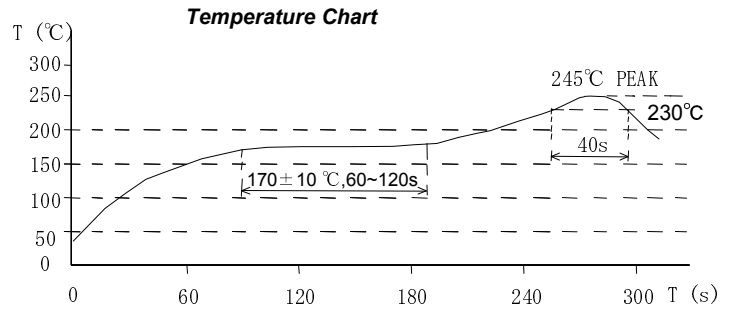
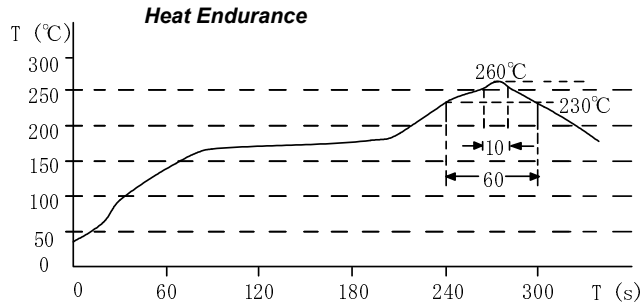
— L (20°C) — L (100°C) —  $\Delta T$



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## Solder Reflow Condition



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