



**THE DATASHEET OF  
CD105-221KC**



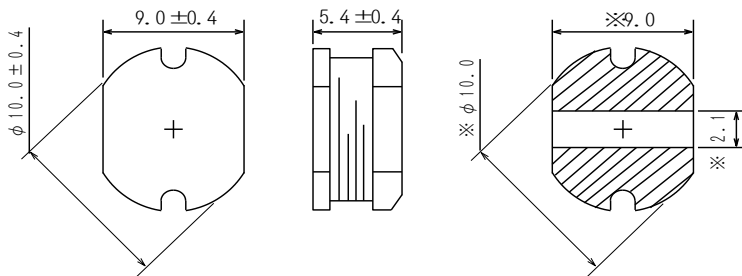
# SMD Power Inductor CD105



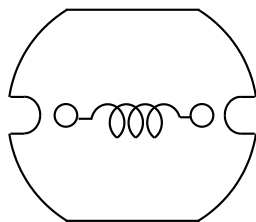
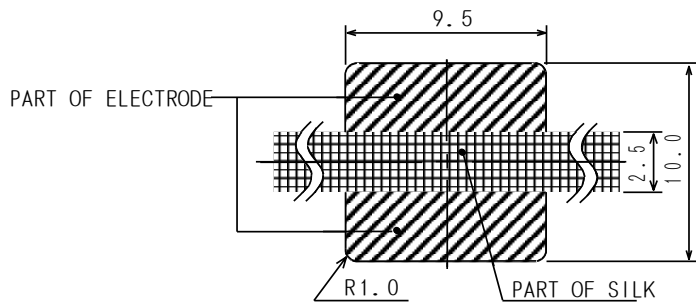
## Description

- Ferrite core construction.
- Magnetically unshielded.
- L × W × H: 10.4 × 9.4 × 5.8mm Max.
- Product weight: 1.3 g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## Environmental Data

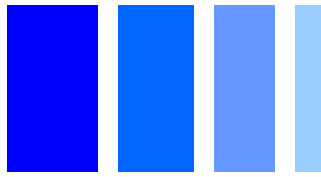
- Operating temperature range: -40°C ~ +100°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +100°C
- Solder reflow temperature: 260 °C peak.

## Packaging

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

## Applications

- Ideally used in PDA, MP3, DSC/DVC, HDD, Portable DVD, etc as DC-DC converter inductors.



### Electrical Characteristics

Part Name	Inductance ( $\mu\text{H}$ ) [Within] ※1	D.C.R. ( $\Omega$ ) [MAX.] (at 20°C)	Rated Current (A) ※2
CD105NP-100MC	10 $\pm$ 20%	0.06	2.60
CD105NP-120MC	12 $\pm$ 20%	0.07	2.45
CD105NP-150MC	15 $\pm$ 20%	0.08	2.27
CD105NP-180MC	18 $\pm$ 20%	0.09	2.15
CD105NP-220MC	22 $\pm$ 20%	0.10	1.95
CD105NP-270MC	27 $\pm$ 20%	0.11	1.76
CD105NP-330MC	33 $\pm$ 20%	0.12	1.50
CD105NP-390MC	39 $\pm$ 20%	0.14	1.37
CD105NP-470KC	47 $\pm$ 10%	0.17	1.28
CD105NP-560KC	56 $\pm$ 10%	0.19	1.17
CD105NP-680KC	68 $\pm$ 10%	0.22	1.11
CD105NP-820KC	82 $\pm$ 10%	0.25	1.00
CD105NP-101KC	100 $\pm$ 10%	0.35	0.97
CD105NP-121KC	120 $\pm$ 10%	0.40	0.89
CD105NP-151KC	150 $\pm$ 10%	0.47	0.78
CD105NP-181KC	180 $\pm$ 10%	0.63	0.72
CD105NP-221KC	220 $\pm$ 10%	0.73	0.66
CD105NP-271KC	270 $\pm$ 10%	0.97	0.57
CD105NP-331KC	330 $\pm$ 10%	1.15	0.52
CD105NP-391KC	390 $\pm$ 10%	1.30	0.48
CD105NP-471KC	470 $\pm$ 10%	1.48	0.42
CD105NP-561KC	560 $\pm$ 10%	1.90	0.33
CD105NP-681KC	680 $\pm$ 10%	2.25	0.28
CD105NP-821KC	820 $\pm$ 10%	2.55	0.24

※1: Inductance measuring frequency: 10 $\mu\text{H}$  ~ 82 $\mu\text{H}$  ; at 2.52MHz.  
100 $\mu\text{H}$  ~ 820 $\mu\text{H}$  ; at 1kHz.

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

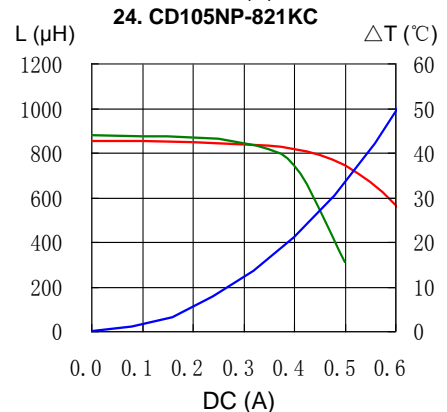
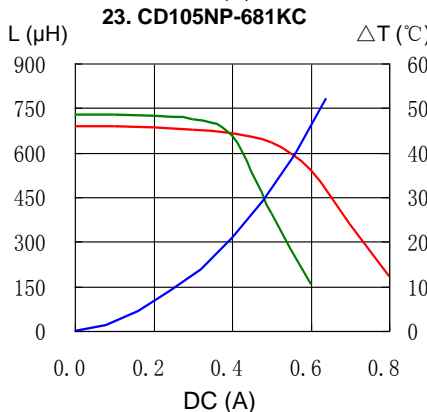
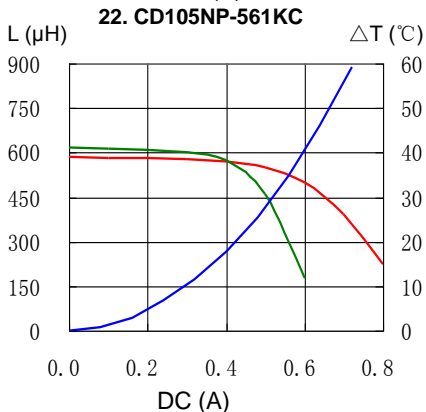
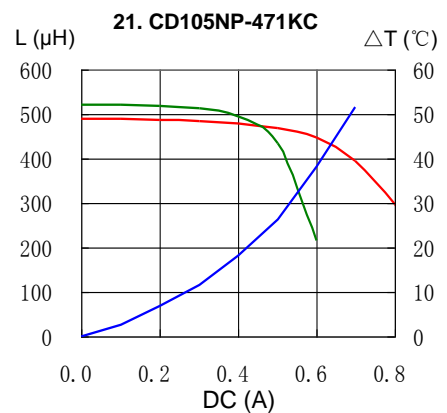
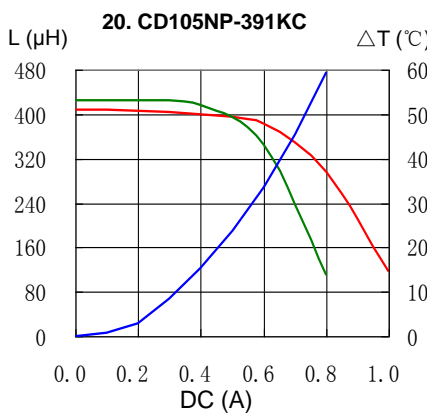
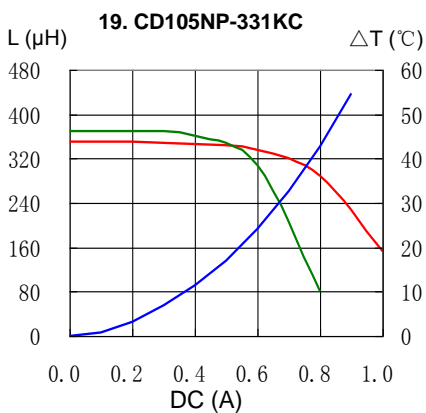
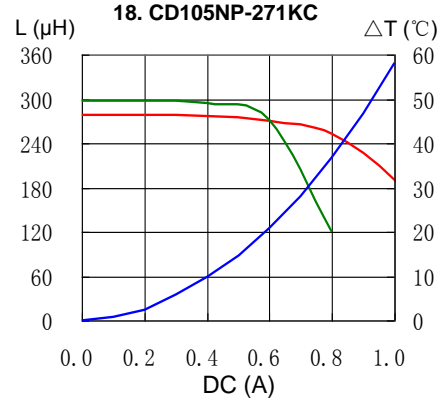
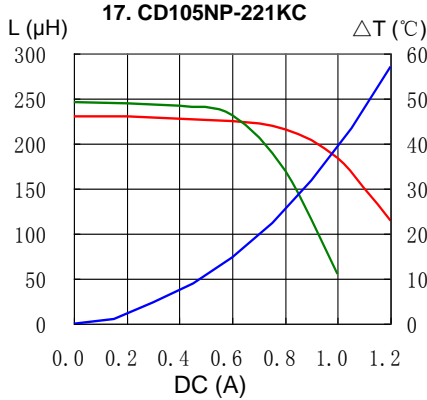
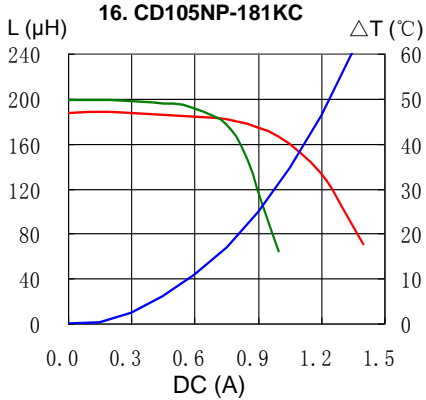
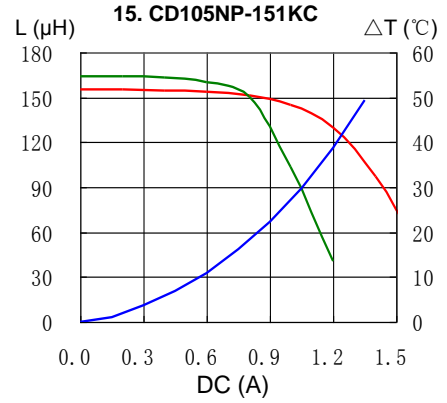
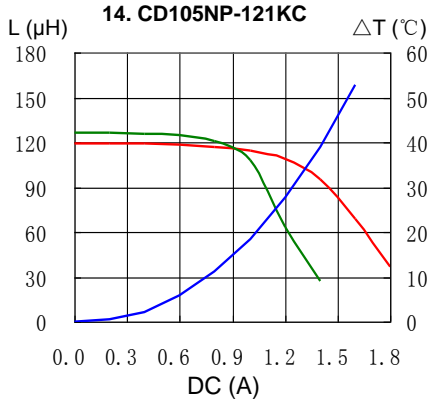
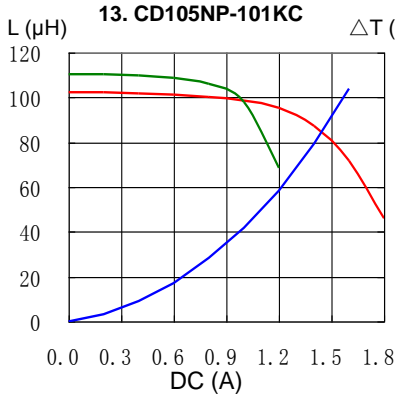


# SMD Power Inductor CD105



## Saturation Current & Temperature Rise Graph

— L (25°C) — L (105°C) —  $\Delta T$

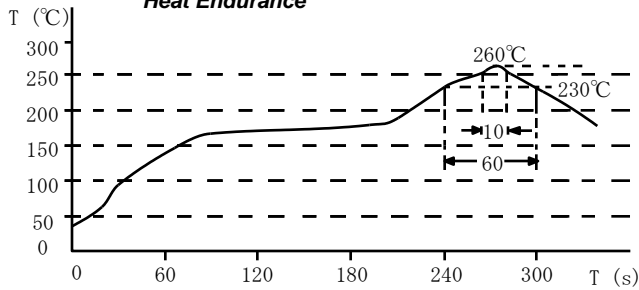


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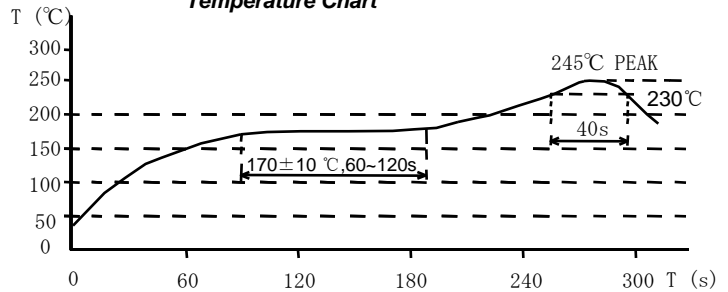


## Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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