

# SMD Power Inductor CDH50D48



**sumida**

*Under Development*



**Halogen  
Free**



## Description

- Ferrite drum core construction
- Magnetically unshielded
- L × W × H: 5.15 × 5.9 × 5.0 mm Max.
- Product weight: 0.4g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

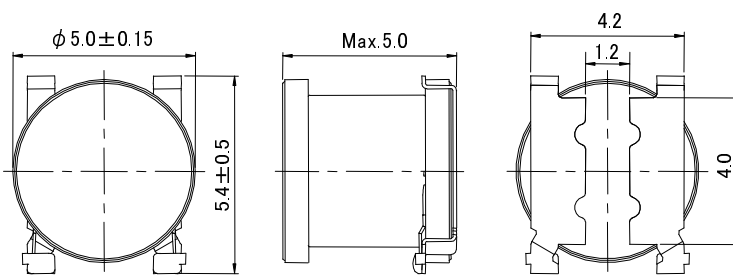
## Environmental Data

- Operating temperature range: -40°C~+105°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+105°C
- Solder reflow temperature: 260 °C peak.

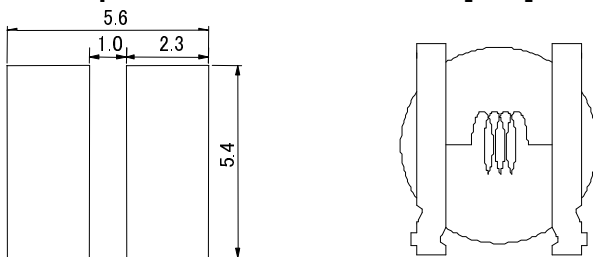
## Packaging

- Carrier tape and reel packaging

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## Applications

- input filter of LED lighting.

## Electrical Characteristics

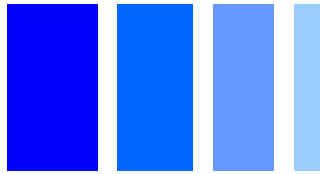
Sumida P/N	Inductance ( $\mu$ H) at 100kHz	D.C.R. ( $\Omega$ ) at 20°C ※1	Saturation Current (mA) ※2		Temperature Rise Current (mA) ※3
			(at 20°C)	(at 105°C)	
CDH50D48NP-101KC	100 ± 10%	0.54(0.43)	600	480	650
CDH50D48NP-151KC	150 ± 10%	0.88(0.70)	490	400	500
CDH50D48NP-221KC	220 ± 10%	1.13(0.90)	410	330	450
CDH50D48NP-331KC	330 ± 10%	1.88(1.57)	330	270	330
CDH50D48NP-471KC	470 ± 10%	2.59(2.16)	275	225	270
CDH50D48NP-681KC	680 ± 10%	3.84(3.20)	240	190	230
CDH50D48NP-102KC	1000 ± 10%	6.72(5.60)	190	150	165
CDH50D48NP-152KC	1500 ± 10%	10.6(8.82)	155	120	135
CDH50D48NP-222KC	2200 ± 10%	16.0(13.3)	130	100	105
CDH50D48NP-332KC	3300 ± 10%	26.6(22.2)	105	80	80
CDH50D48NP-472KC	4700 ± 10%	33.8(28.2)	90	65	75

※1. ( ) are typical value.

※2. Saturation current: The value of D.C. current when the inductance decreases to 90% of it's nominal value.

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

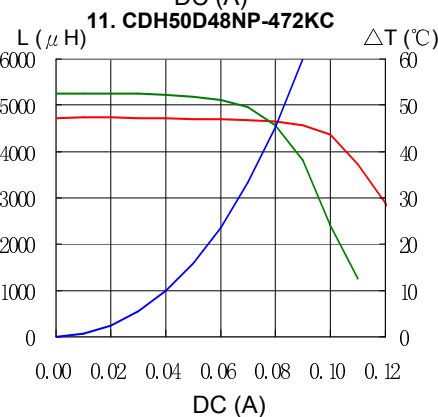
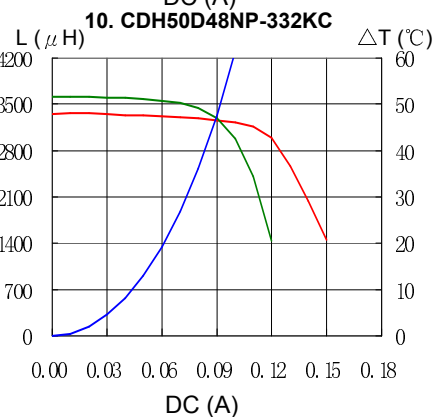
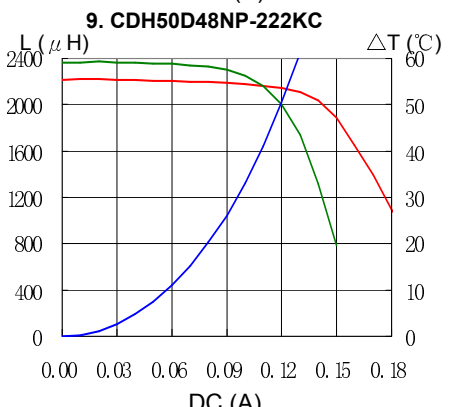
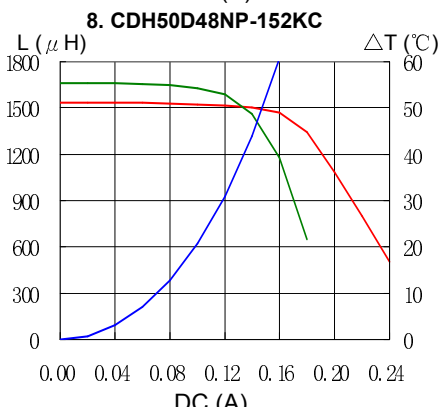
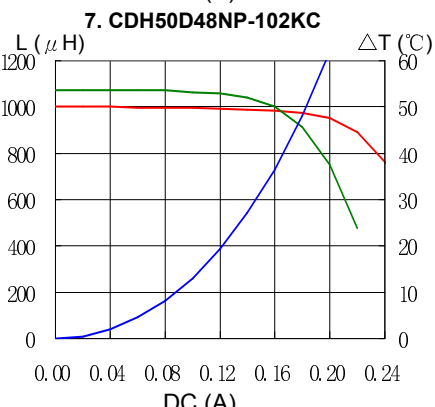
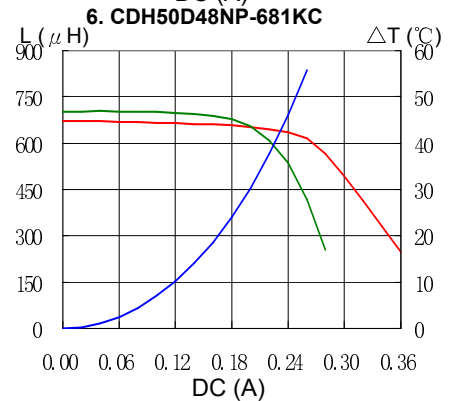
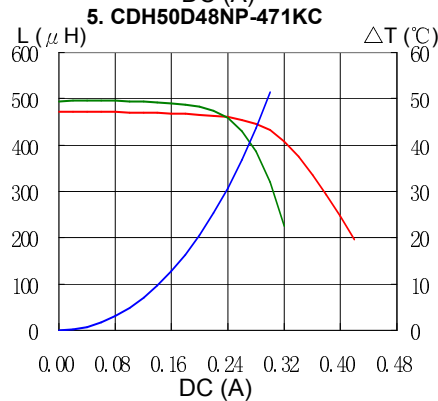
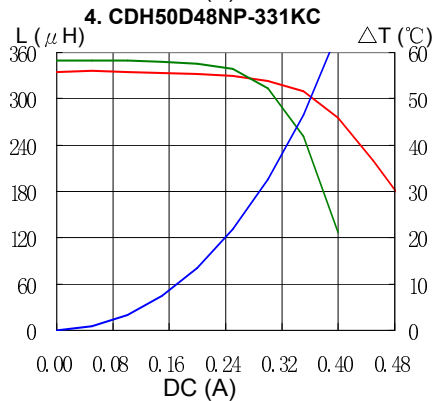
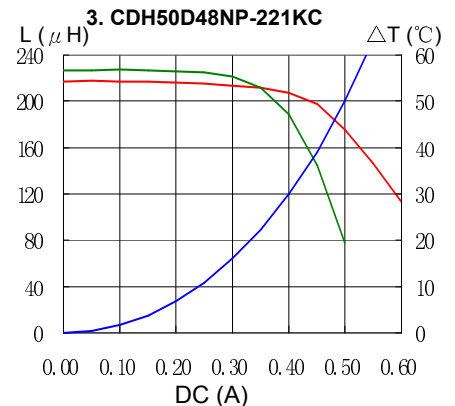
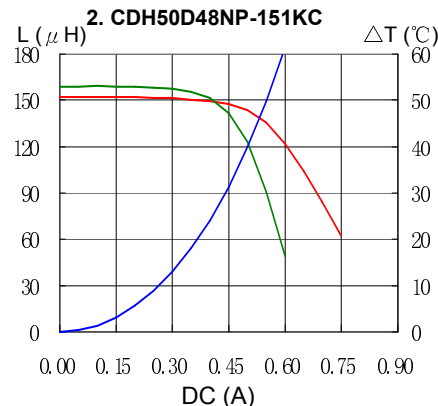
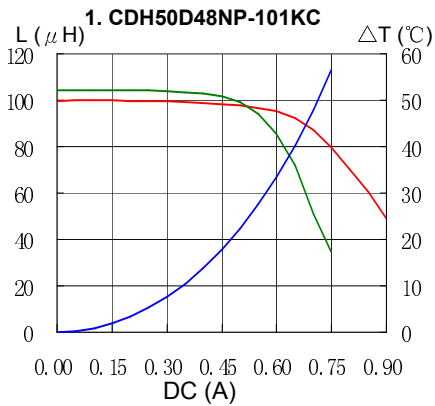
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## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$



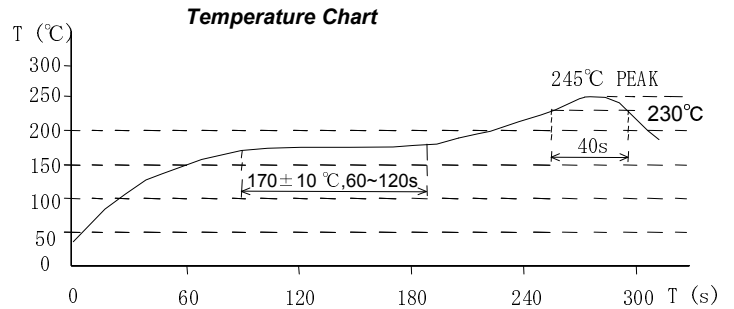
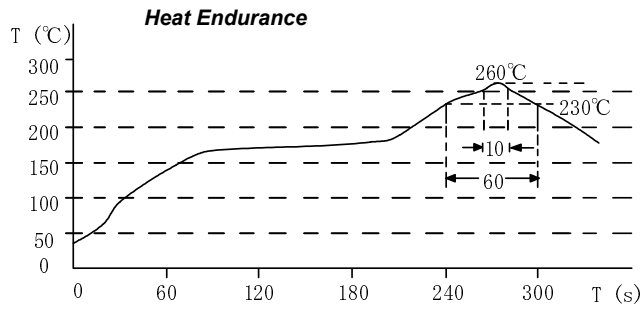
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## Solder Reflow Condition



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