



**THE DATASHEET OF  
CDR10D48MNNP-220**



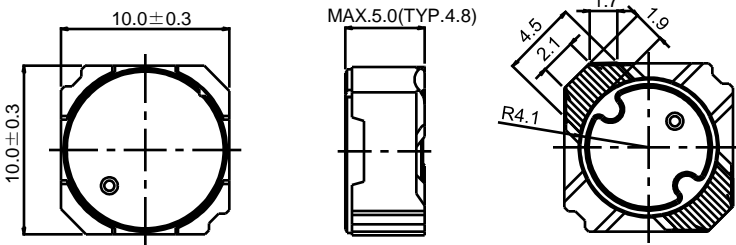
# SMD Power Inductor CDR10D48MN



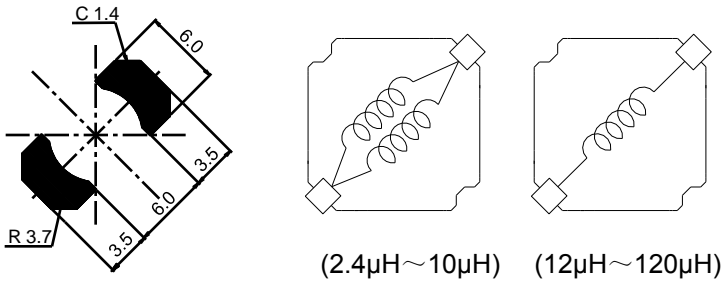
## Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 10.3 × 10.3 × 5.0 mm Max.
- Product weight: 1.8g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



## 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.
- 13.0" diameter reel
- 500pcs per reel

## Applications

- Ideally used in LCD Driver ,DSC/DVC, Notebook PC etc as DC-DC converter inductors.



### Electrical Characteristics

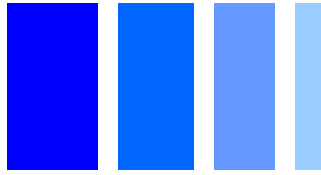
PART NAME	STAMP	INDUCTANCE [WITHIN] ※1	D.C.R. (mΩ) MAX.. (Typ.) (at 20°C)	SATURATION CURRENT ( A ) ※2		TEMPERATURE RISE CURRENT ( A ) ※3
				(at20°C)	(at105°C)	
CDR10D48MNNP-2R4NC	2R4	2.4μH±25%	12.5(10.0)	11.5	9.2	9.6
CDR10D48MNNP-3R6NC	3R6	3.6μH±25%	15.0(12.0)	9.4	7.7	8.2
CDR10D48MNNP-5R0NC	5R0	5.0μH±25%	16.9(13.5)	8.0	6.5	6.8
CDR10D48MNNP-6R6NC	6R6	6.6μH±25%	22.5(18.0)	7.1	5.7	5.7
CDR10D48MNNP-8R5NC	8R5	8.5μH±25%	28.8(23.0)	6.3	5.1	4.8
CDR10D48MNNP-100NC	100	10μH±25%	40.0(32.0)	5.5	4.4	4.3
CDR10D48MNNP-120NC	120	12μH±25%	42.5(34.0)	4.9	4.1	3.6
CDR10D48MNNP-150NC	150	15μH±25%	46.0(37.0)	4.5	3.6	3.4
CDR10D48MNNP-180NC	180	18μH±25%	50.0(40.0)	4.1	3.4	3.2
CDR10D48MNNP-220NC	220	22μH±25%	56.0(45.0)	4.0	3.2	2.8
CDR10D48MNNP-270NC	270	27μH±25%	63.0(50.0)	3.6	2.9	2.7
CDR10D48MNNP-330NC	330	33μH±25%	90.0(70.0)	3.1	2.5	2.1
CDR10D48MNNP-390NC	390	39μH±25%	105.0(85.0)	3.0	2.4	1.9
CDR10D48MNNP-470NC	470	47μH±25%	120.0(95.0)	2.6	2.1	1.8
CDR10D48MNNP-560NC	560	56μH±25%	150.0(120)	2.4	2.0	1.6
CDR10D48MNNP-680NC	680	68μH±25%	175.0(140)	2.1	1.8	1.5
CDR10D48MNNP-820NC	820	82μH±25%	220.0(175)	2.0	1.6	1.3
CDR10D48MNNP-101NC	101	100μH±25%	275.0(220)	1.8	1.5	1.1
CDR10D48MNNP-121NC	121	120μH±25%	312.5(250)	1.6	1.3	1.0

※1. Measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 65% of it's nominal value.

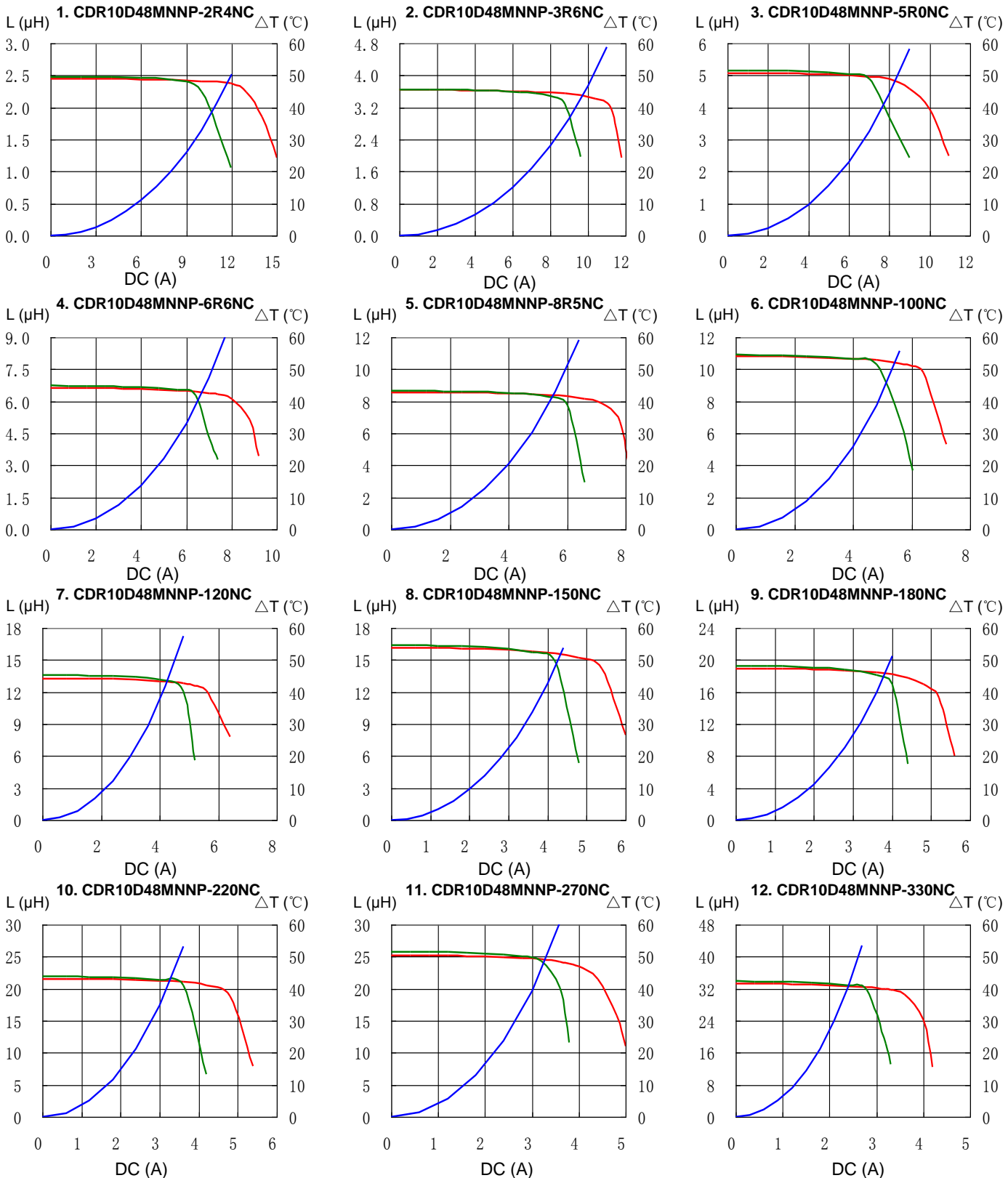
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

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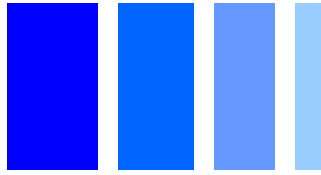


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

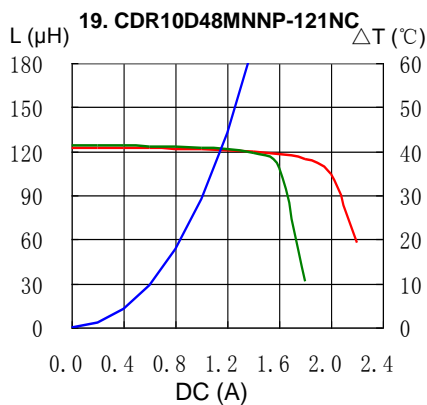
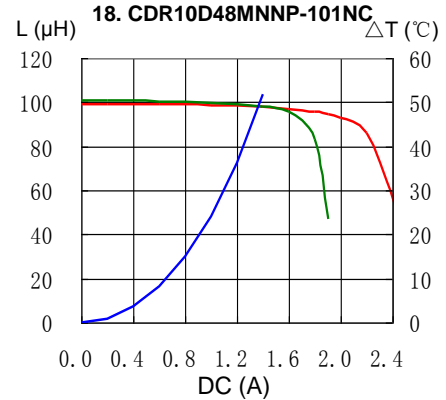
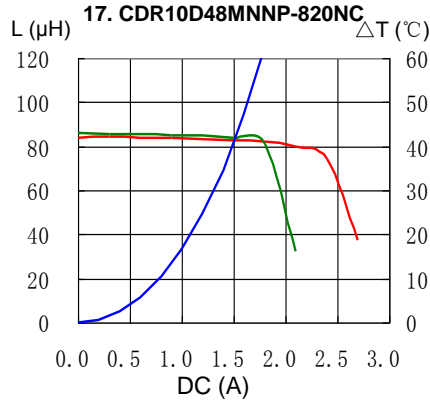
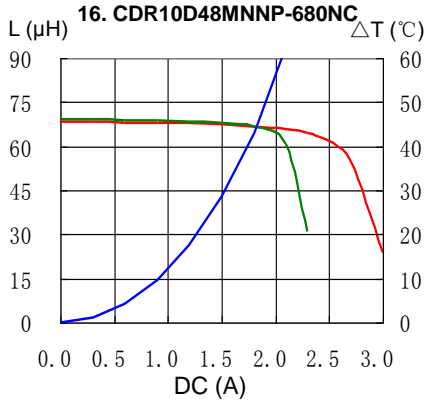
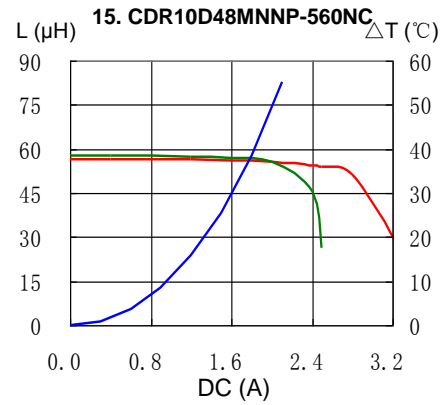
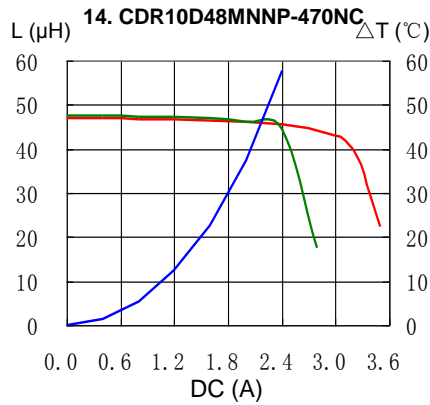
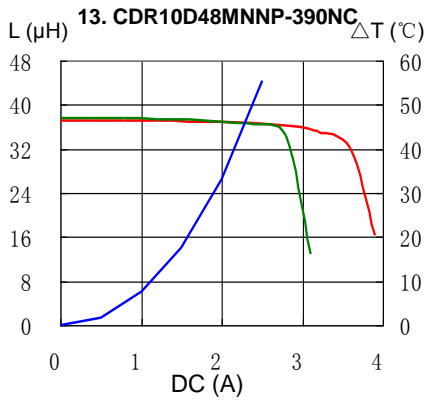


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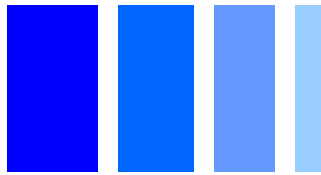


## Saturation Current & Temperature Rise Graph

— L (20°C) — L (105°C) —  $\Delta T$

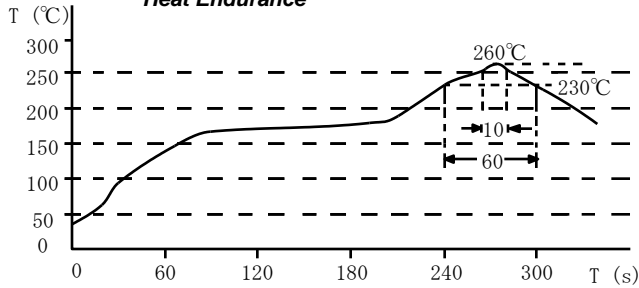


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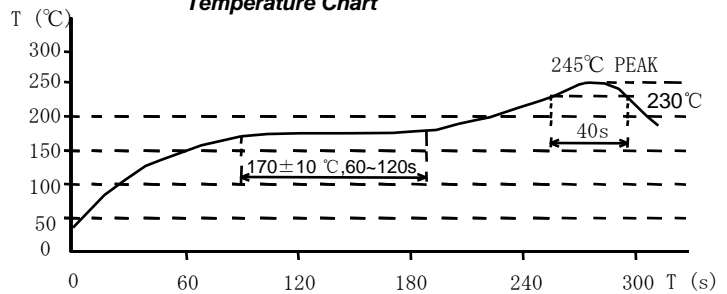


## Solder Reflow Condition

**Heat Endurance**



**Temperature Chart**



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