

SMD Power Inductor CDRH5D18C



RoHS

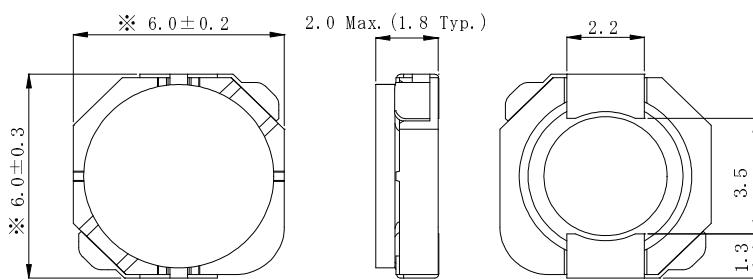
Halogen
Free



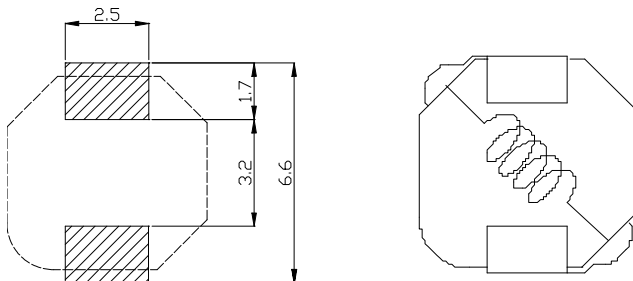
Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 6.3 × 6.2 × 2.0 mm Max.
- Product weight: 0.23g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.
- Halogen Free available.

Dimension - [mm]



Land pattern and Schematics - [mm]



Environmental Data

- Operating temperature range: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ (including coil's self temperature rise)
- Storage temperature range: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- Solder reflow temperature: 260°C peak.

Packaging

- Carrier tape and reel packaging
- 12.9" diameter reel
- 2000pcs per reel

Applications

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

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Electrical Characteristics

Part Name	Stamp	Inductance (μ H) [within] ※1	D.C.R. (m Ω) Max. (Typ.) (at 20°C)	Saturation Current (A) ※2		Temperature Rise Current (A) ※3
				at 20°C	at 105°C	
CDRH5D18CNP-1R0MC	1R0	1.0 $\pm$ 20%	21.0(16.8)	4.16	3.28	3.80
CDRH5D18CNP-1R5MC	1R5	1.5 $\pm$ 20%	25.6(20.5)	3.36	2.70	3.50
CDRH5D18CNP-2R0MC	2R0	2.0 $\pm$ 20%	32.7(26.1)	2.90	2.30	3.00
CDRH5D18CNP-3R3MC	3R3	3.3 $\pm$ 20%	48.3(38.7)	2.30	1.84	2.50
CDRH5D18CNP-4R7MC	4R7	4.7 $\pm$ 20%	60.4(48.3)	2.00	1.60	2.20
CDRH5D18CNP-5R6MC	5R6	5.6 $\pm$ 20%	77.9(62.3)	1.76	1.44	1.90
CDRH5D18CNP-6R8MC	6R8	6.8 $\pm$ 20%	86.0(68.8)	1.68	1.36	1.80
CDRH5D18CNP-8R2MC	8R2	8.2 $\pm$ 20%	110.2(88.1)	1.44	1.16	1.50
CDRH5D18CNP-100MC	100	10 $\pm$ 20%	132.0(105.6)	1.30	1.08	1.40
CDRH5D18CNP-120MC	120	12 $\pm$ 20%	165.0(132.0)	1.20	0.96	1.25
CDRH5D18CNP-150MC	150	15 $\pm$ 20%	197.8(158.2)	1.10	0.88	1.15
CDRH5D18CNP-220MC	220	22 $\pm$ 20%	290.4(232.3)	0.92	0.72	0.95
CDRH5D18CNP-330MC	330	33 $\pm$ 20%	430.9(344.7)	0.72	0.60	0.75
CDRH5D18CNP-470MC	470	47 $\pm$ 20%	605.4(484.1)	0.62	0.50	0.60

※1. Inductance measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 70% of it's nominal value.

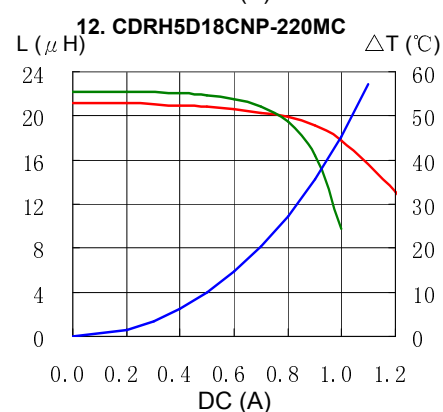
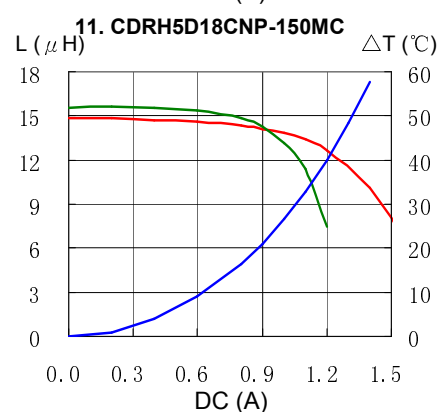
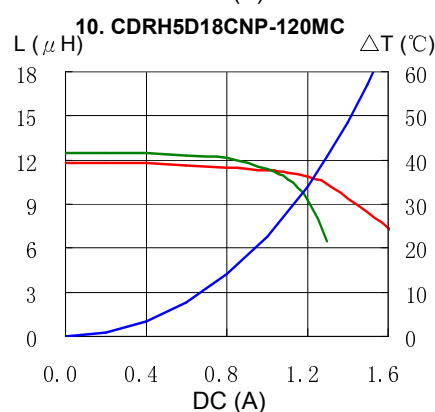
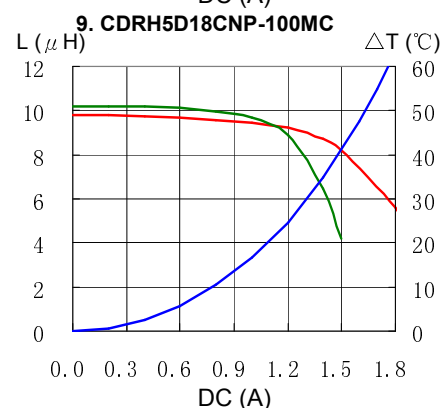
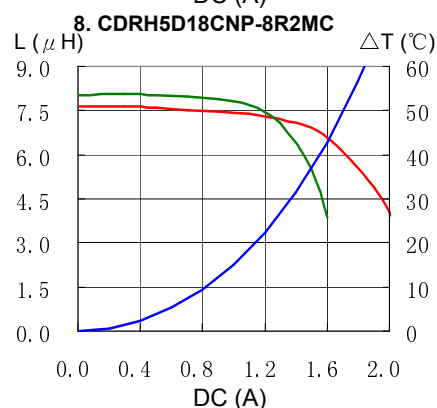
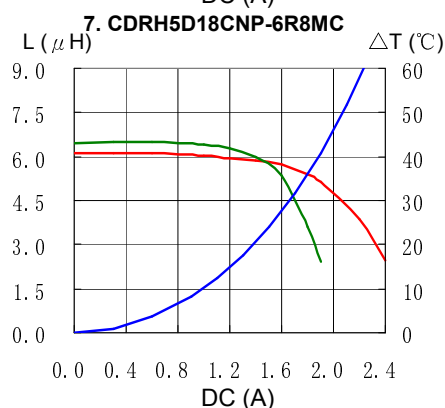
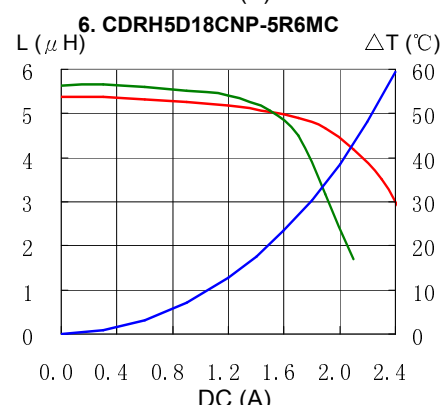
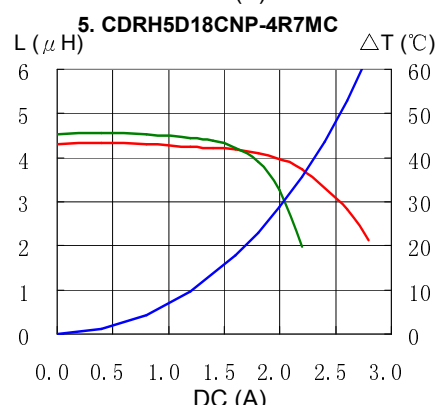
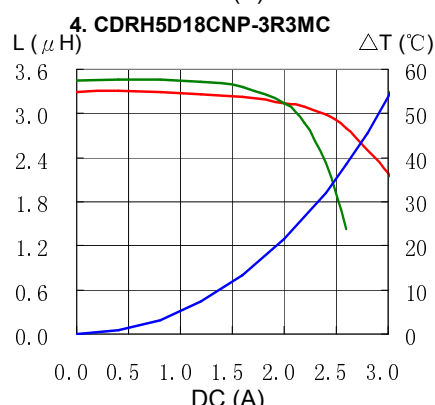
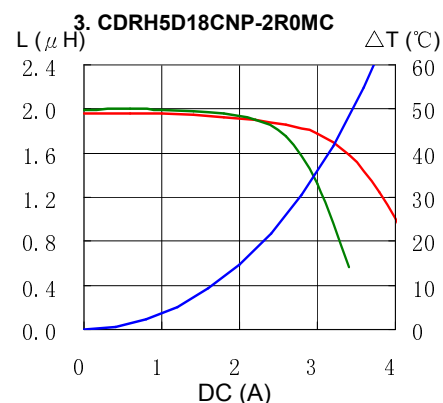
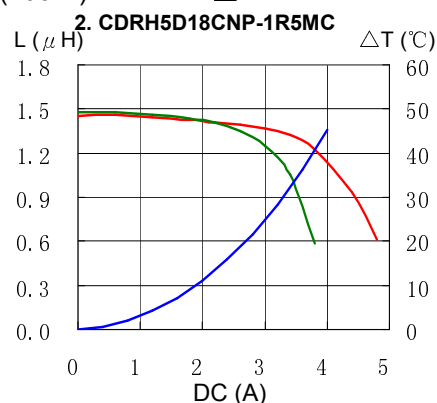
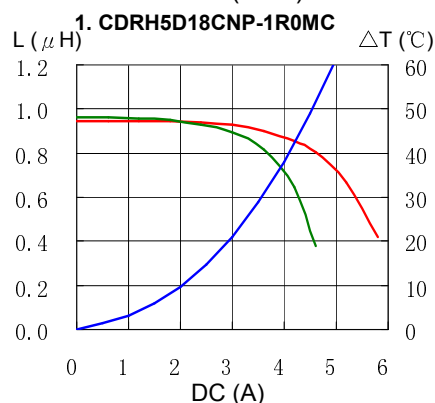
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t=40^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$).

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Saturation Current & Temperature Rise Graph

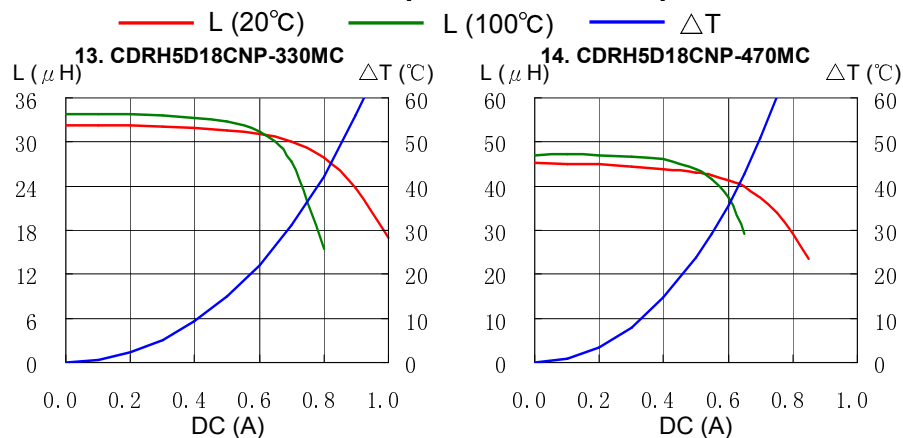
— L (20°C) — L (105°C) — ΔT



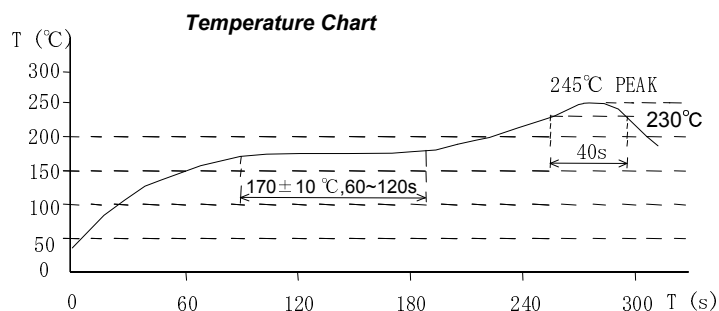
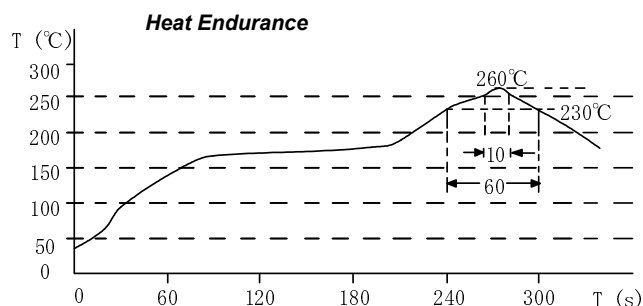
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Saturation Current & Temperature Rise Graph



Solder Reflow Condition



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