SMD Power Inductor
CDEP85

RoHS



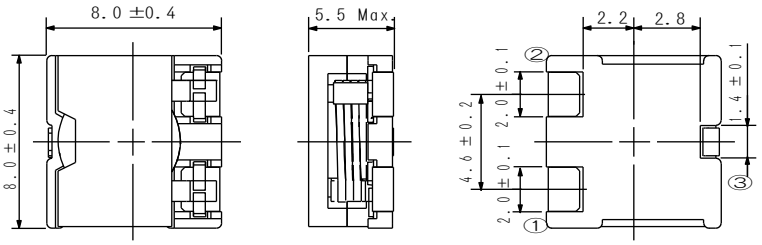
Description
- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 8.4 × 8.4 × 5.5 mm Max.
- Product weight:1.2 g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

Environmental Data
- Operating temperature range: -40℃～+125℃ (including coil's self temperature rise)
- Storage temperature range: -40℃～+125℃
- Solder reflow temperature: 260 ℃ peak.

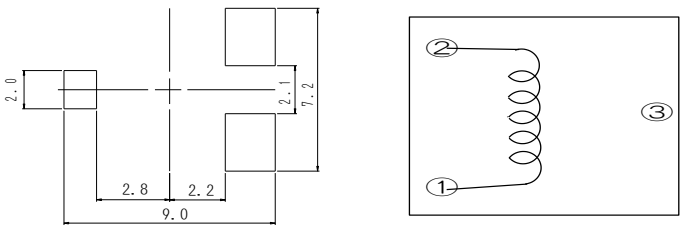
Packaging
- Carrier tape and reel packaging.
- 13.0"diameter reel
- 1000pcs per reel

Applications
- Ideally used in portable computer CPU power supply.

Dimension - [mm]



Land pattern and Schematics - [mm]



Electrical Characteristics

Electrical characteristics - Low D.C.R. Type

Part No.	Stamp	Inductance [Within]※1	D.C.R. (mΩ)[Max.] (at20℃)	Saturation current (A)※2		Temperature Rise Current (A)※3
				(at 20℃)	(at105℃)	
CDEP85NP-R5ØMC-125	R50ML	0.5μH±20%	2.5(2.1)	12.0(15.0)	10.4(13.0)	18.0
CDEP85NP-1R1MC-125	1R1ML	1.1μH±20%	3.4(2.8)	7.8(9.8)	6.8(8.5)	17.0
CDEP85NP-2RØMC-125	2R0ML	2.0μH±20%	4.8(4.0)	5.3(6.6)	4.7(5.9)	13.5
CDEP85NP-3R1MC-125	3R1ML	3.1μH±20%	7.0(5.9)	4.4(5.5)	3.7(4.6)	10.8
CDEP85NP-4R5MC-125	4R5ML	4.5μH±20%	8.1(6.8)	3.6(4.5)	3.2(4.0)	9.7
CDEP85NP-6R1MC-125	6R1ML	6.1μH±20%	9.8(8.2)	3.4(4.2)	2.9(3.6)	8.3
CDEP85NP-8RØMC-125	8R0ML	8.0μH±20%	11.7(9.8)	2.9(3.6)	2.6(3.2)	7.5
CDEP85NP-1ØØMC-125	100ML	10.0μH±20%	15.1(12.6)	2.6(3.2)	2.2(2.8)	6.5

Revised: 10-Jan-17

Electrical characteristics - Standard Type

Part No.	Stamp	Inductance [Within] ※1	D.C.R.(mΩ) [Max.] (at 20℃)	Saturation current (A)※2		Temperature Rise current (A)※3
				(at 20℃)	(at105℃)	
CDEP85NP-R35MC-88	R35MS	0.35μH±20%	2.5(2.1)	18.4(23.0)	15.2(19.0)	18.0
CDEP85NP-R8ØMC-88	R80MS	0.8μH±20%	3.4(2.8)	11.4(14.2)	10.0(12.5)	17.0
CDEP85NP-1R4MC-88	1R4MS	1.4μH±20%	4.8(4.0)	8.8(11.0)	7.6(9.5)	13.5
CDEP85NP-2R2MC-88	2R2MS	2.2μH±20%	7.0(5.9)	7.0(8.7)	5.8(7.3)	10.8
CDEP85NP-3R2MC-88	3R2MS	3.2μH±20%	8.1(6.8)	5.8(7.2)	5.0(6.2)	9.7
CDEP85NP-4R3MC-88	4R3MS	4.3μH±20%	9.8(8.2)	5.0(6.2)	4.1(5.1)	8.3
CDEP85NP-5R6MC-88	5R6MS	5.6μH±20%	11.7(9.8)	4.3(5.4)	3.6(4.5)	7.5
CDEP85NP-7R1MC-88	7R1MS	7.1μH±20%	15.1(12.6)	3.8(4.8)	3.3(4.1)	6.5

Electrical characteristics - High Power Type

Part No.	Stamp	Inductance [Within] ※1	D.C.R.(mΩ) [Max.] (at 20℃)	Saturation current (A) ※2		Temperature Rise current (A) ※3
				(at 20℃)	(at105℃)	
CDEP85NP-R2ØMC-5Ø	R20MH	0.2μH±20%	2.5(2.1)	32.0(40.0)	26.0(32.5)	18.0
CDEP85NP-R45MC-5Ø	R45MH	0.45μH±20%	3.4(2.8)	22.0(27.5)	18.0(22.5)	17.0
CDEP85NP-R8ØMC-5Ø	R80MH	0.8μH±20%	4.8(4.0)	16.0(20.0)	13.2(16.5)	13.5
CDEP85NP-1R2MC-5Ø	1R2MH	1.2μH±20%	7.0(5.9)	12.8(16.0)	10.6(13.2)	10.8
CDEP85NP-1R8MC-5Ø	1R8MH	1.8μH±20%	8.1(6.8)	10.8(13.5)	8.8(11.0)	9.7
CDEP85NP-2R4MC-5Ø	2R4MH	2.4μH±20%	9.8(8.2)	9.3(11.6)	7.7(9.6)	8.3
CDEP85NP-3R2MC-5Ø	3R2MH	3.2μH±20%	11.7(9.8)	8.0(10.0)	6.5(8.1)	7.5
CDEP85NP-4RØMC-5Ø	4R0MH	4.0μH±20%	15.1(12.6)	7.2(9.0)	5.9(7.4)	6.5

※1. Measuring condition: at 100 kHz.

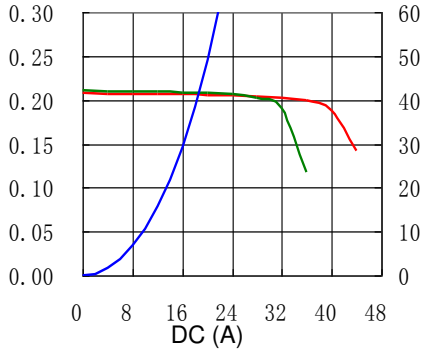
※2. Saturation current: The value of D.C. current when the inductance decreases to 75% of it's nominal value.

※3. Temperature rise current: The value of D.C. current when the temperature rise is △t=40℃(Ta=20℃).

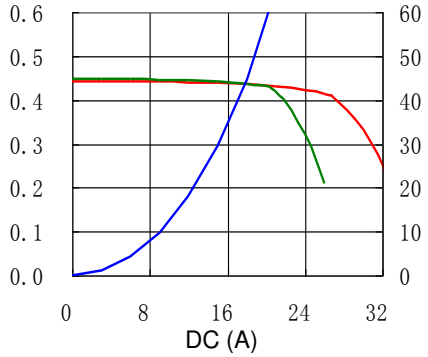
Saturation Current & Temperature Rise Graph

L (20℃) L (105℃) △T

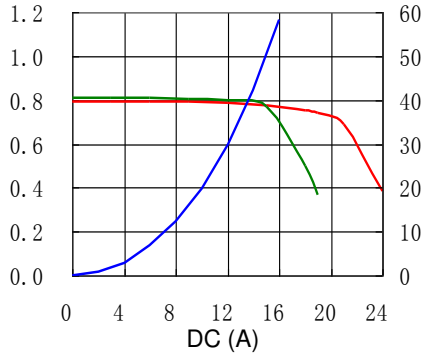
1. CDEP85NP-R20MC-50



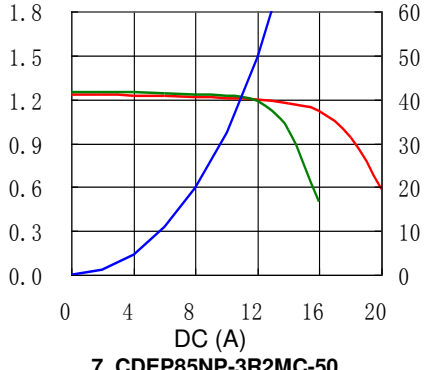
2. CDEP85NP-R45MC-50



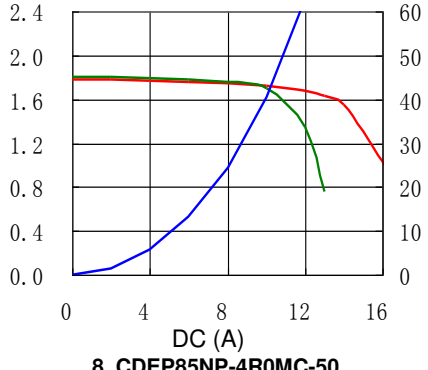
3. CDEP85NP-R80MC-50



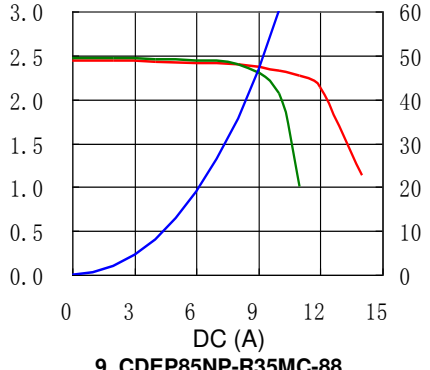
4. CDEP85NP-1R2MC-50



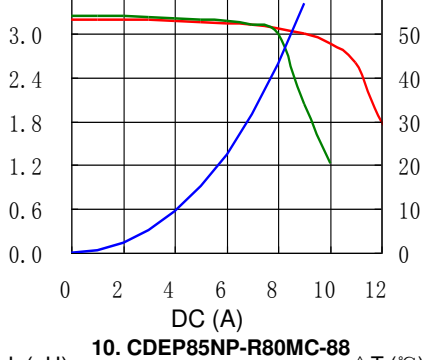
5. CDEP85NP-1R8MC-50



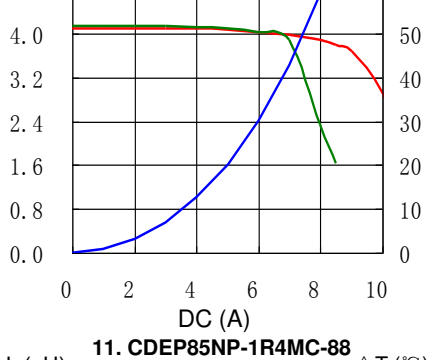
6. CDEP85NP-2R4MC-50



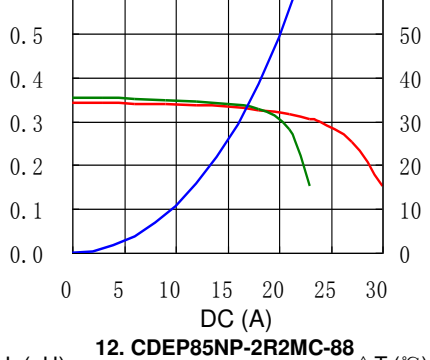
7. CDEP85NP-3R2MC-50



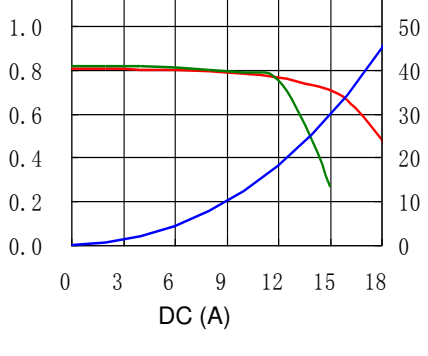
8. CDEP85NP-4R0MC-50



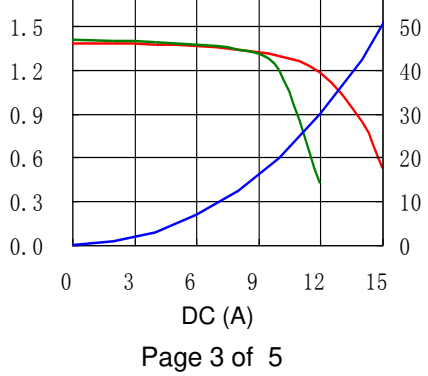
9. CDEP85NP-R35MC-88



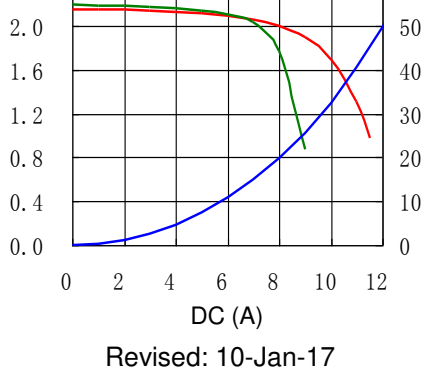
10. CDEP85NP-R80MC-88



11. CDEP85NP-1R4MC-88



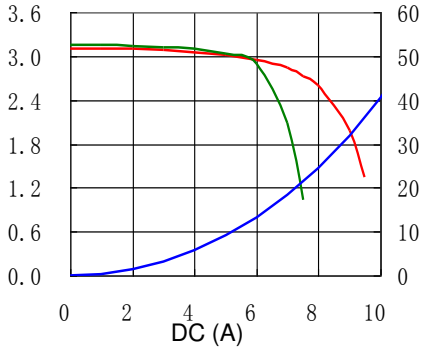
12. CDEP85NP-2R2MC-88



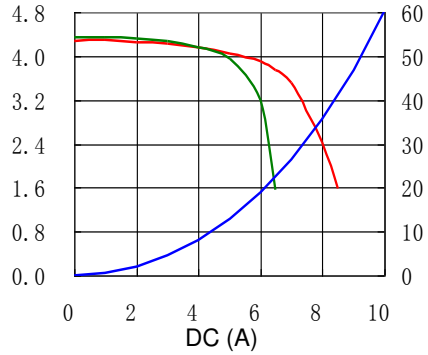
Saturation Current & Temperature Rise Graph

L (20℃) L (105℃) △T

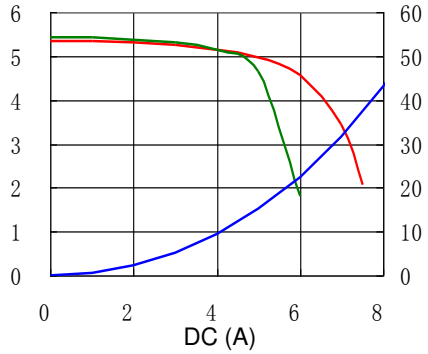
13. CDEP85NP-3R2MC-88



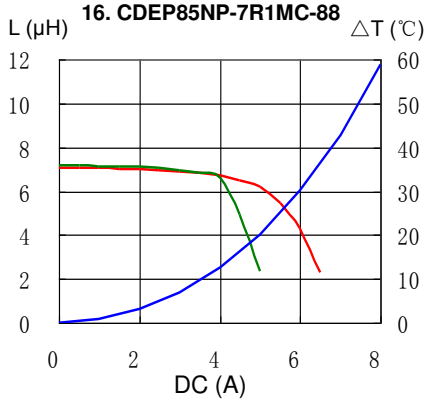
14. CDEP85NP-4R3MC-88



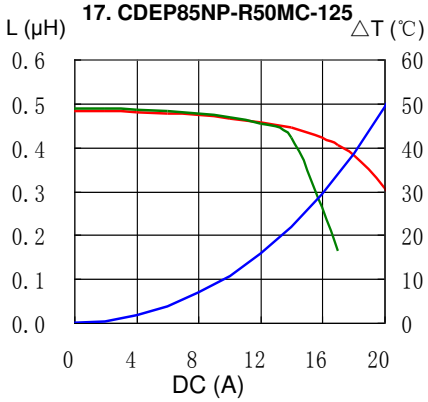
15. CDEP85NP-5R6MC-88



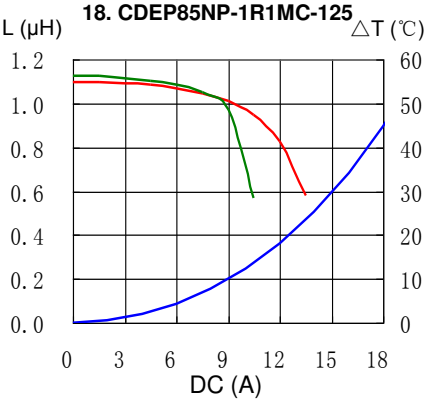
16. CDEP85NP-7R1MC-88



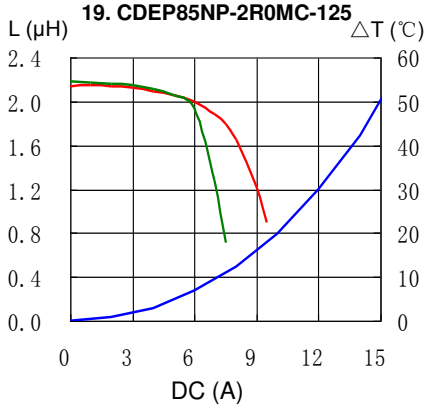
17. CDEP85NP-R50MC-125



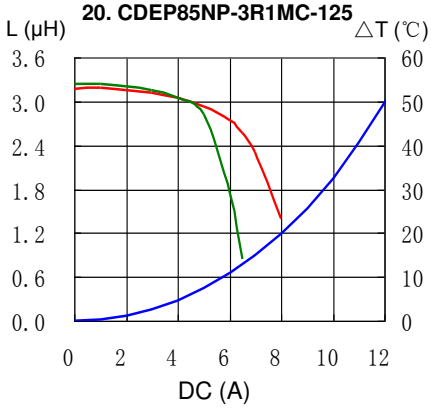
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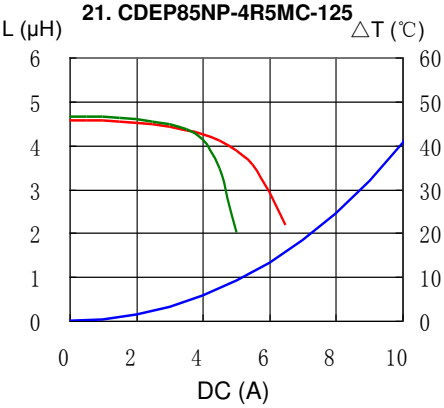
19. CDEP85NP-2R0MC-125



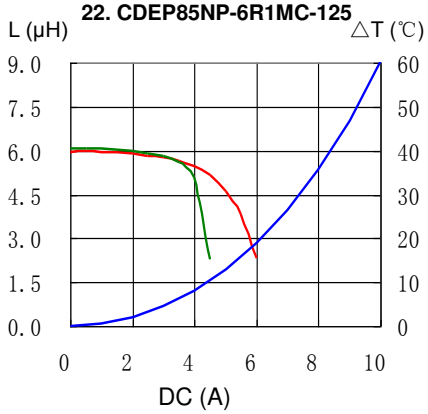
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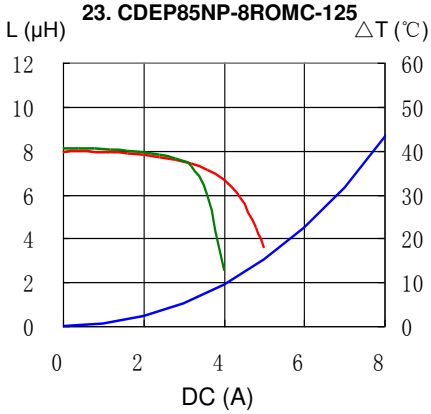
21. CDEP85NP-4R5MC-125



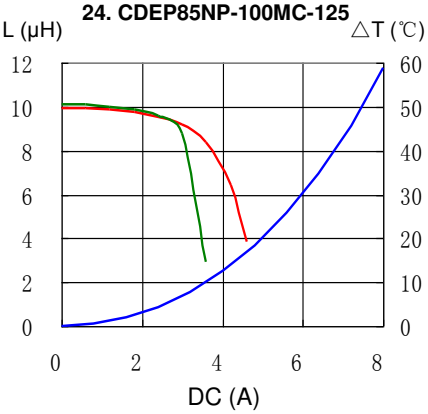
22. CDEP85NP-6R1MC-125



23. CDEP85NP-8ROMC-125

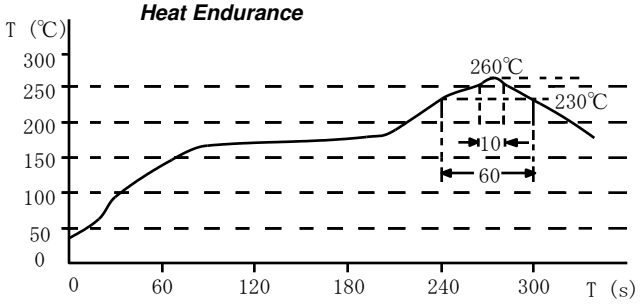


24. CDEP85NP-100MC-125

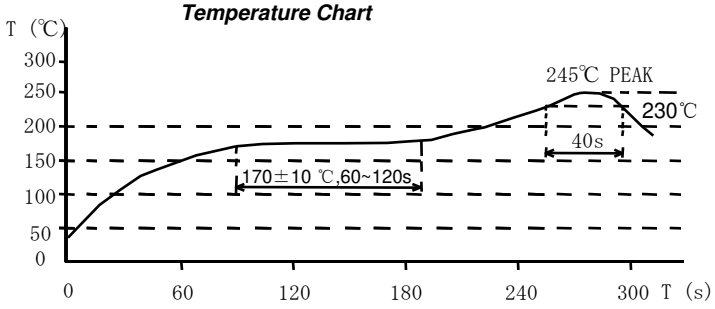


Solder Reflow Condition

Heat Endurance



Temperature Chart



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