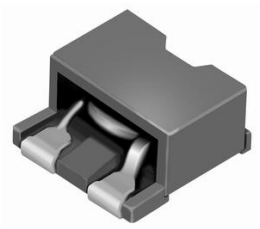
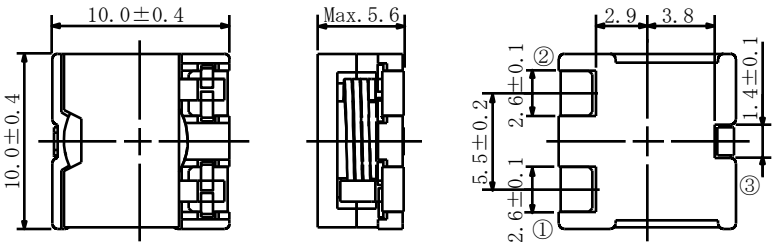
SMD Power Inductor
CDEP105

RoHS



Description
- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 10.4 × 10.4 × 5.6 mm Max.
- Product weight: 1.5g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

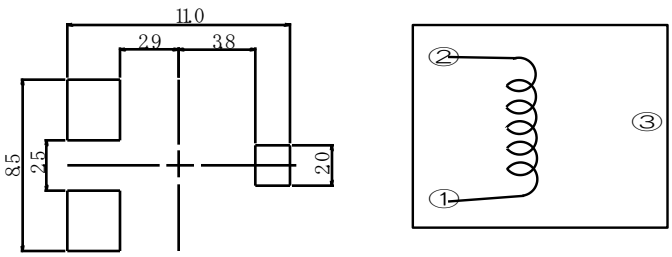
Dimension - [mm]



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
- 500pcs per reel

Land pattern and Schematics - [mm]



Applications
- Ideally used in PC and other high current power supply.

Electrical Characteristics1 – Low D.C.R. Type

PART NO.	STAMP	INDUCTANCE (μH) ※1	D.C.R.. (mΩ) [MAX.] (at 20℃)	SATURATION CURRENT(A) ※2		TEMPERATURE RISE CURRENT (A) ※3 △T=40℃
				(at 20℃)	(at100℃)	
CDEP1Ø5NP-ØR3NC-88	0R3NL	0.36±30%	1.7(1.4)	24.0	20.0	19.0
CDEP1Ø5NP-ØR8MC-88	0R8ML	0.8±20%	2.4(2.0)	16.0	13.2	17.7
CDEP1Ø5NP-1R4MC-88	1R4ML	1.4±20%	4.1(3.4)	12.0	10.0	13.0
CDEP1Ø5NP-2R2MC-88	2R2ML	2.2±20%	5.3(4.4)	9.6	8.0	11.2
CDEP1Ø5NP-3R2MC-88	3R2ML	3.2±20%	7.5(6.2)	7.8	6.6	9.0
CDEP1Ø5NP-4R3MC-88	4R3ML	4.3±20%	10.5(8.7)	6.8	5.7	7.8
CDEP1Ø5NP-5R7MC-88	5R7ML	5.7±20%	12.4(10.3)	5.8	4.9	7.4
CDEP1Ø5NP-7R2MC-88	7R2ML	7.2±20%	18.0(15.0)	5.3	4.2	6.2
CDEP1Ø5NP-8R8MC-88	8R8ML	8.8±20%	23.8(19.8)	4.8	4.0	4.9

Revised: 6-Jan-17

Electrical Characteristics2 – Standard Type

PART NO.	STAMP	INDUCTANCE (μH) ※1	D.C.R. (mΩ) [MAX.] (at 20℃)	SATURATION CURRENT (A) ※2		TEMPERATURE RISE CURRENT (A) ※3 △T=40℃
				(at 20℃)	(at100℃)	
CDEP1Ø5NP-ØR2NC-5Ø	0R2NS	0.22±30%	1.7(1.4)	40.0	30.9	19.0
CDEP1Ø5NP-ØR4MC-5Ø	0R4MS	0.45±20%	2.4(2.0)	26.4	21.2	17.7
CDEP1Ø5NP-ØR8MC-5Ø	0R8MS	0.8±20%	4.1(3.4)	20.8	16.7	13.0
CDEP1Ø5NP-1R3MC-5Ø	1R3MS	1.3±20%	5.3(4.4)	16.8	13.4	11.2
CDEP1Ø5NP-1R8MC-5Ø	1R8MS	1.8±20%	7.5(6.2)	13.8	11.0	9.0
CDEP1Ø5NP-2R5MC-5Ø	2R5MS	2.5±20%	10.5(8.7)	11.8	9.6	7.8
CDEP1Ø5NP-3R2MC-5Ø	3R2MS	3.2±20%	12.4(10.3)	10.5	8.4	7.4
CDEP1Ø5NP-4RØMC-5Ø	4R0MS	4.0±20%	18.0(15.0)	9.3	7.4	6.2
CDEP1Ø5NP-5RØMC-5Ø	5R0MS	5.0±20%	23.8(19.8)	8.4	6.7	4.9

Electrical Characteristics3 – High Power Type

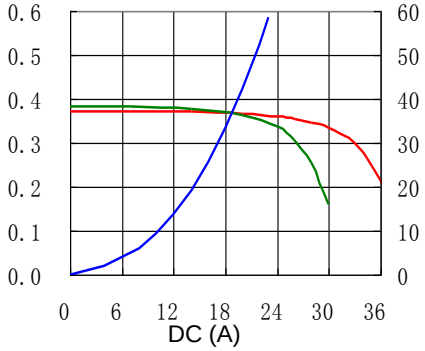
PART NO.	STAMP	INDUCTANCE (μH) ※1	D.C.R. (mΩ) [MAX.] (at 20℃)	SATURATION CURRENT (A) ※2		TEMPERATURE RISE CURRENT (A) ※3 △T=40℃
				(at 20℃)	(at100℃)	
CDEP1Ø5NP-ØR1NC-32	0R1NH	0.15±30%	1.7(1.4)	55.0	46.0	19.0
CDEP1Ø5NP-ØR3NC-32	0R3NH	0.3±30%	2.4(2.0)	40.0	33.0	17.7
CDEP1Ø5NP-ØR5MC-32	0R5MH	0.5±20%	4.1(3.4)	30.4	25.0	13.0
CDEP1Ø5NP-ØR8MC-32	0R8MH	0.8±20%	5.3(4.4)	25.2	20.7	11.2
CDEP1Ø5NP-1R2MC-32	1R2MH	1.2±20%	7.5(6.2)	21.0	17.4	9.0
CDEP1Ø5NP-1R5MC-32	1R5MH	1.5±20%	10.5(8.7)	18.0	15.0	7.8
CDEP1Ø5NP-2RØMC-32	2R0MH	2.0±20%	12.4(10.3)	15.8	13.1	7.4
CDEP1Ø5NP-2R5MC-32	2R5MH	2.5±20%	18.0(15.0)	14.0	11.7	6.2
CDEP1Ø5NP-3RØMC-32	3R0MH	3.0±20%	23.8(19.8)	12.6	10.5	4.9

※1. Measuring condition: at 100kHz.
※2. Saturation current:The value of D.C. current when the inductance decreases to 65% (while the tolerance is ±30%) or 75% (while the tolerance is±20%) of it's nominal.
※3. Temperature rise current: The value of D.C. current when the temperature rise is △t=40℃(Ta=20℃).

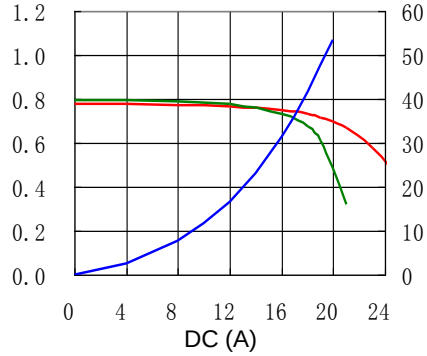
Saturation Current & Temperature Rise Graph

L (20℃) L (100℃) △T

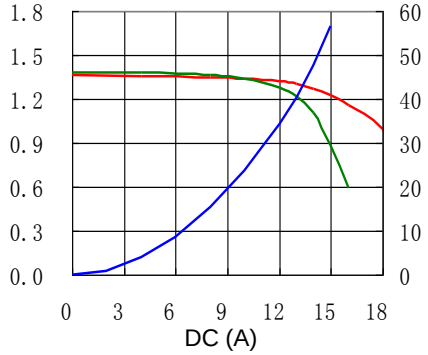
1. CDEP105NP-0R3NC-88



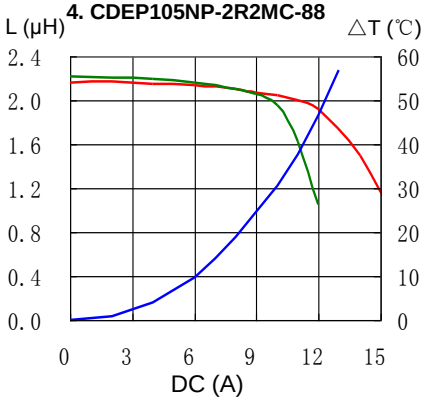
2. CDEP105NP-0R8MC-88



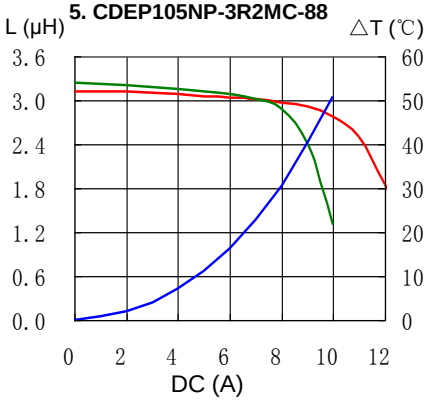
3. CDEP105NP-1R4MC-88



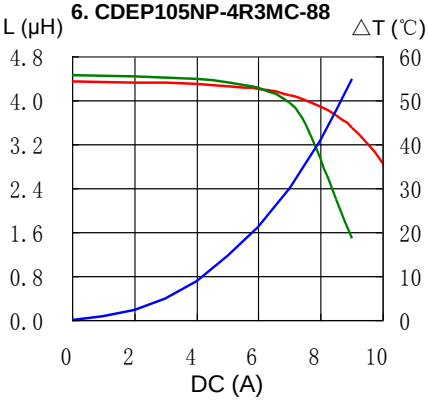
4. CDEP105NP-2R2MC-88



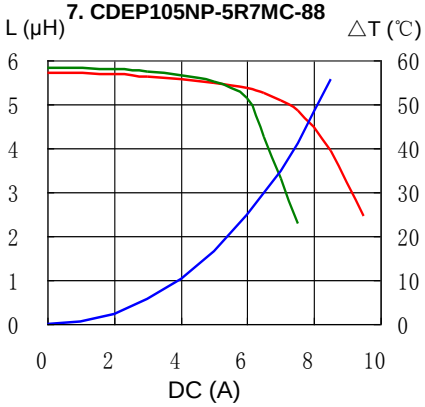
5. CDEP105NP-3R2MC-88



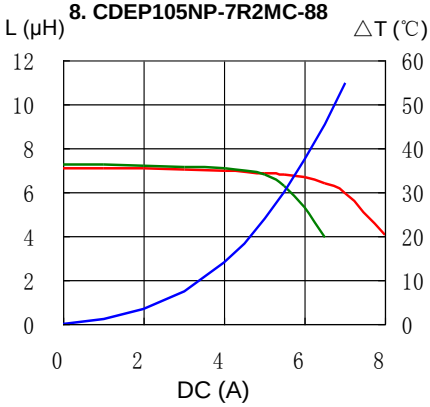
6. CDEP105NP-4R3MC-88



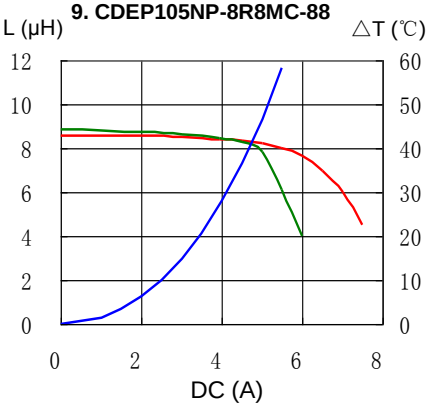
7. CDEP105NP-5R7MC-88



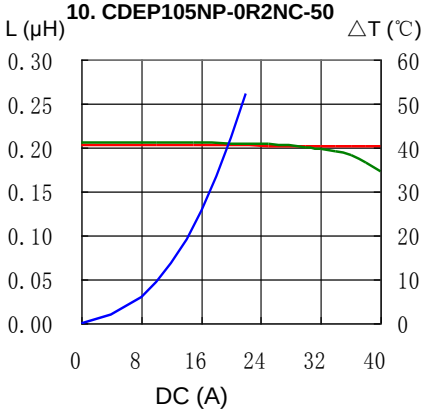
8. CDEP105NP-7R2MC-88



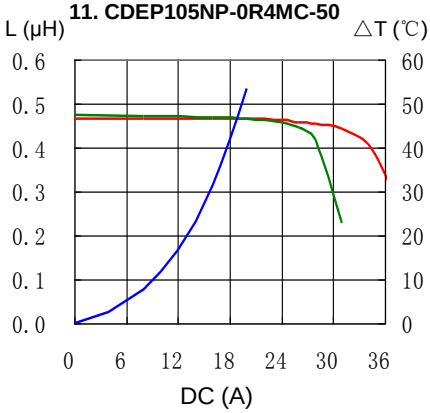
9. CDEP105NP-8R8MC-88



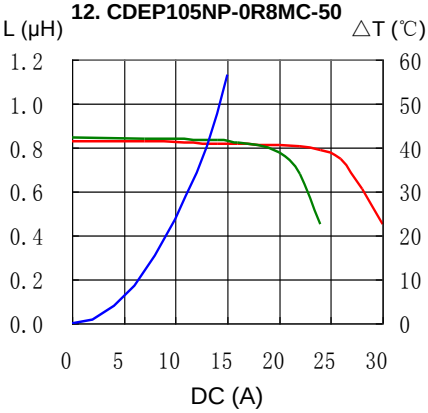
10. CDEP105NP-0R2NC-50



11. CDEP105NP-0R4MC-50



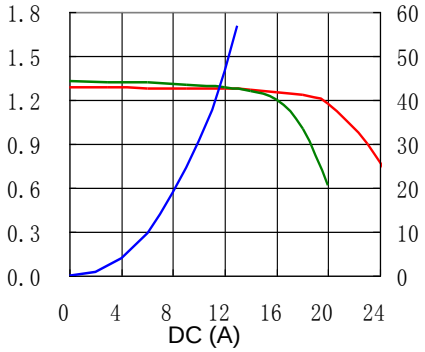
12. CDEP105NP-0R8MC-50



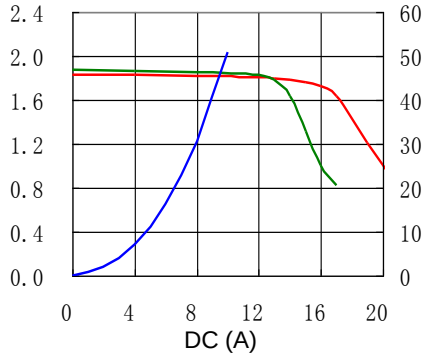
Saturation Current & Temperature Rise Graph

L (20℃) L (100℃) △T

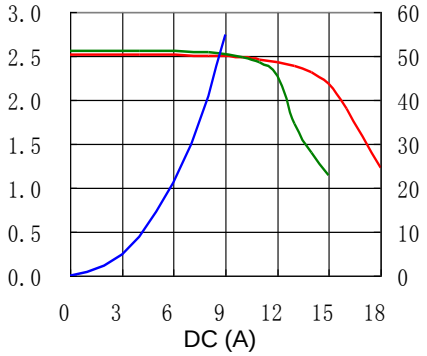
13. CDEP105NP-1R3MC-50



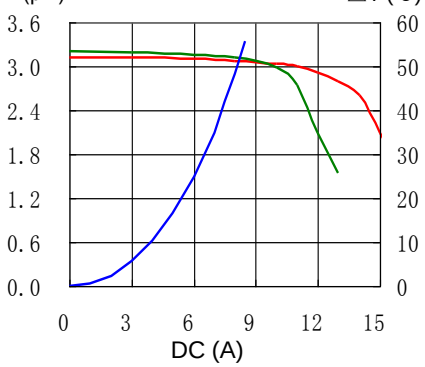
14. CDEP105NP-1R8MC-50



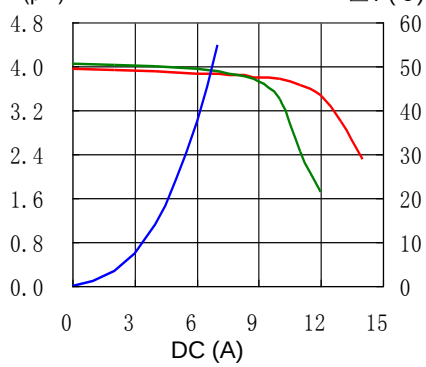
15. CDEP105NP-2R5MC-50



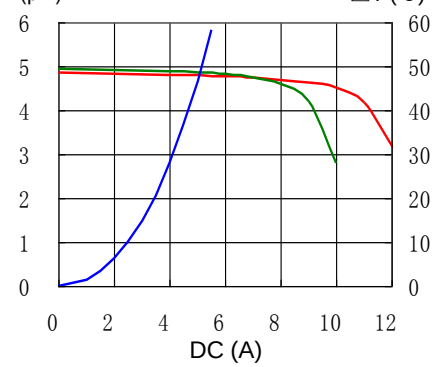
16. CDEP105NP-3R2MC-50



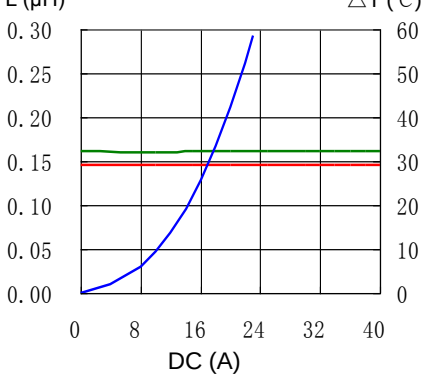
17. CDEP105NP-4R0MC-50



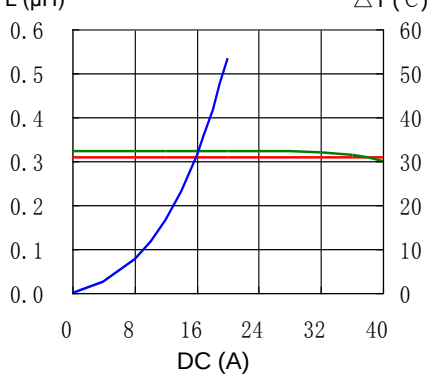
18. CDEP105NP-5R0MC-50



19. CDEP105NP-0R1NC-32



20. CDEP105NP-0R3NC-32



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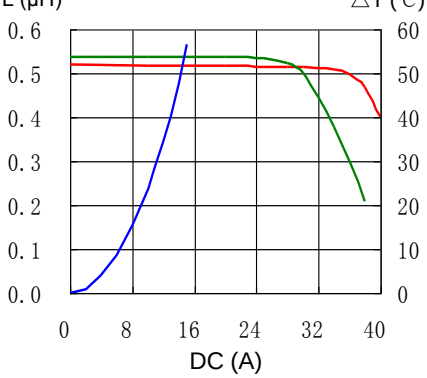
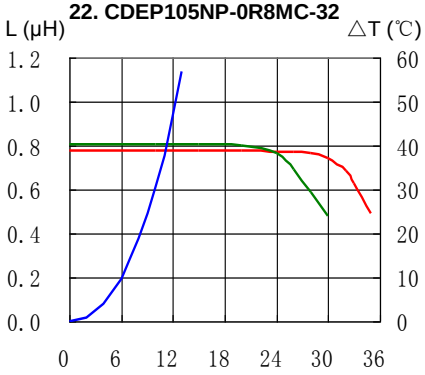
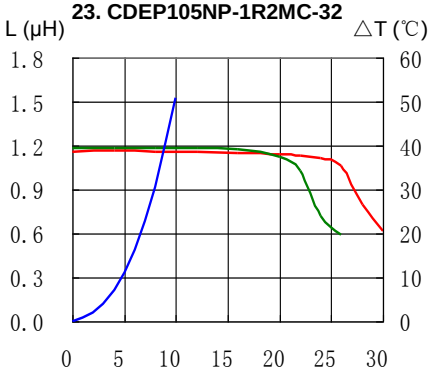


22. CDEP105NP-0R8MC-32



23. CDEP105NP-1R2MC-32



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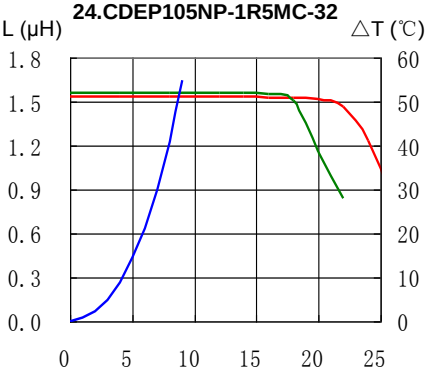
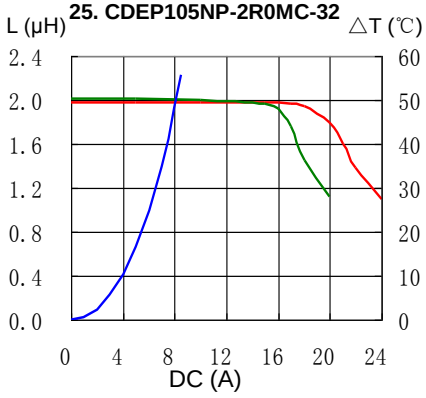


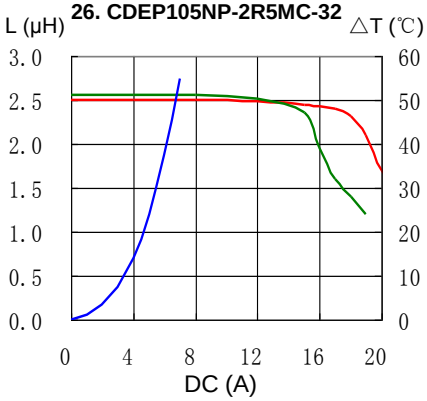
Saturation Current & Temperature Rise Graph

L (20℃) L (100℃) △T

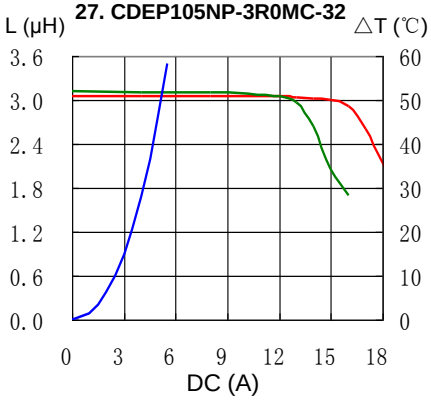
25. CDEP105NP-2R0MC-32



26. CDEP105NP-2R5MC-32

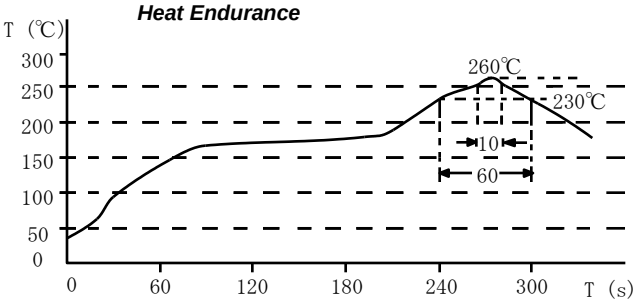


27. CDEP105NP-3R0MC-32



Solder Reflow Condition

Heat Endurance



Temperature Chart