SMD Power Inductor
CDEP12D38

RoHS

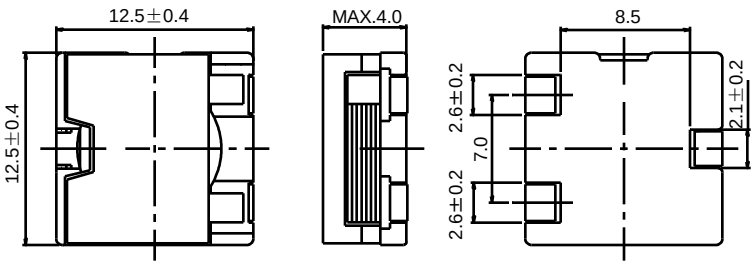
Description
- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 12.9 × 12.9 × 4.0 mm Max.
- Product weight:2.0 g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

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

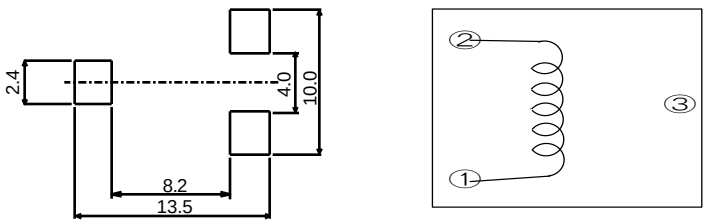
Packaging
- Carrier tape and reel packaging
- 13.0"diameter reel
- 1000pcs per reel

Applications
- Ideally used in desktop, notebook PC CPU power supply and other high current application.

Dimension - [mm]



Land pattern and Schematics - [mm]



Revised: 6-Jan-17

Electrical Characteristics

ELECTRICAL CHARACTERISTICS-LOW D.C.R. TYPE

PART NO.	STAMP	INDUCTANCE ※1	D.C.R. (mΩ) [MAX.] (at 20℃)	SATURATION CURRENT (A)※2		TEMPERATURE RISE CURRENT (A) ※3 △T=40℃
				(at 20℃)	(at105℃)	
CDEP12D38NP-ØR5MC-12Ø	0R5ML	0.5μH±20%	1.5(1.19)	19.2(24.0)	15.6(19.5)	20.0
CDEP12D38NP-1R1MC-12Ø	1R1ML	1.1μH±20%	2.7(2.20)	12.8(16.0)	10.8(13.5)	16.0
CDEP12D38NP-1R9MC-12Ø	1R9ML	1.9μH±20%	4.8(4.00)	9.6(12.0)	8.0(10.0)	12.5
CDEP12D38NP-3RØMC-12Ø	3R0ML	3.0μH±20%	7.7(6.40)	7.6(9.5)	6.4(8.0)	10.5
CDEP12D38NP-4R3MC-12Ø	4R3ML	4.3μH±20%	11.2(9.30)	6.4(8.0)	5.2(6.5)	8.5
CDEP12D38NP-5R9MC-12Ø	5R9ML	5.9μH±20%	13.3(11.0)	5.6(7.0)	4.5(5.6)	7.5
CDEP12D38NP-7R7MC-12Ø	7R7ML	7.7μH±20%	21.0(17.5)	4.8(6.0)	4.0(5.0)	5.5

ELECTRICAL CHARACTERISTICS-STANDARD TYPE

PART NO.	STAMP	INDUCTANCE ※1	D.C.R. (mΩ) [MAX.] (at 20℃)	SATURATION CURRENT (A)※2		TEMPERATURE RISE CURRENT (A) ※3 △T=40℃
				(at 20℃)	(at105℃)	
CDEP12D38NP-ØR3MC-88	0R3MS	0.35μH±20%	1.5(1.19)	27.2(34.0)	22.0(27.5)	20.0
CDEP12D38NP-ØR8MC-88	0R8MS	0.8μH±20%	2.7(2.20)	18.0(22.5)	14.8(18.5)	16.0
CDEP12D38NP-1R4MC-88	1R4MS	1.4μH±20%	4.8(4.00)	13.2(16.5)	11.0(13.8)	12.5
CDEP12D38NP-2R2MC-88	2R2MS	2.2μH±20%	7.7(6.40)	10.8(13.5)	8.8(11.0)	10.5
CDEP12D38NP-3R2MC-88	3R2MS	3.2μH±20%	11.2(9.30)	9.2(11.5)	7.4(9.2)	8.5
CDEP12D38NP-4R3MC-88	4R3MS	4.3μH±20%	13.3(11.0)	7.8(9.7)	6.3(7.9)	7.5
CDEP12D38NP-5R6MC-88	5R6MS	5.6μH±20%	21.0(17.5)	6.8(8.5)	5.4(6.8)	5.5

※1. Measuring condition: at 100kHz.

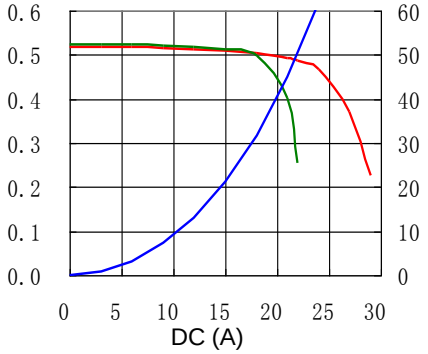
※2. Saturation current: The value of D.C. current when the inductance decreases to 75% of it's nominal value.

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

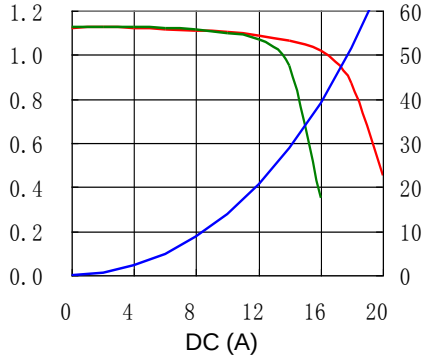
Saturation Current & Temperature Rise Graph

L (20℃) L (105℃) △T

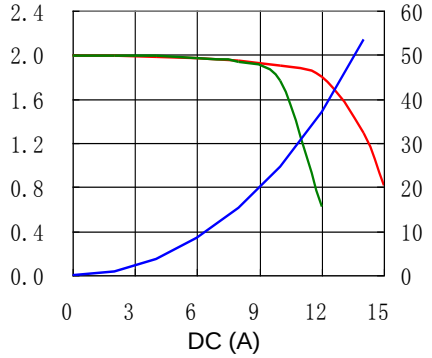
1. CDEP12D38NP-0R5MC-120



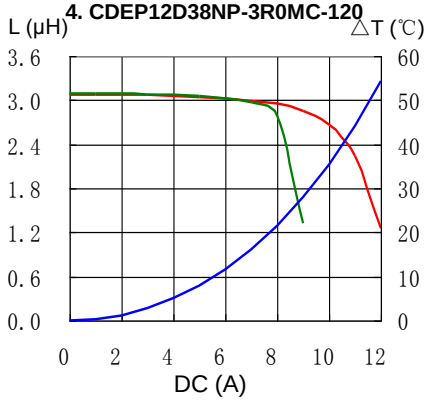
2. CDEP12D38NP-1R1MC-120



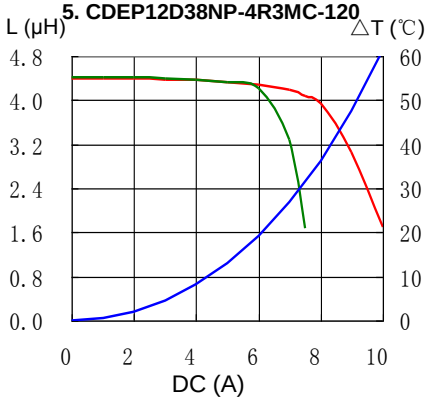
3. CDEP12D38NP-1R9MC-120



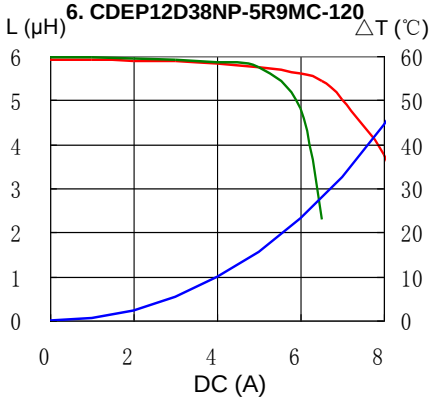
4. CDEP12D38NP-3R0MC-120



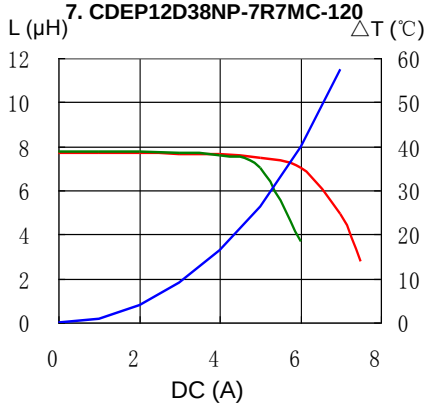
5. CDEP12D38NP-4R3MC-120



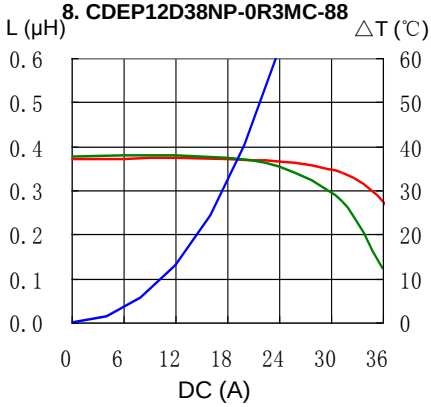
6. CDEP12D38NP-5R9MC-120



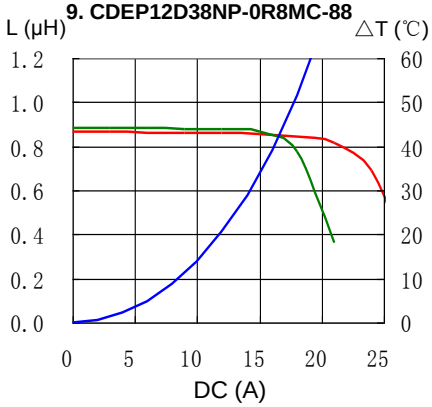
7. CDEP12D38NP-7R7MC-120



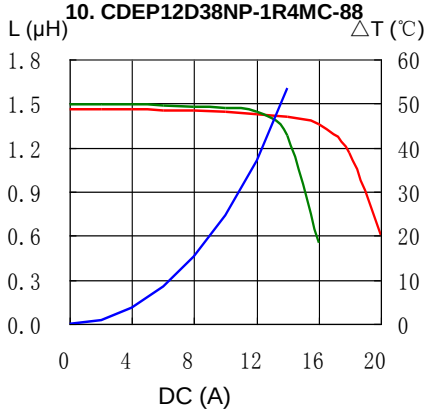
8. CDEP12D38NP-0R3MC-88



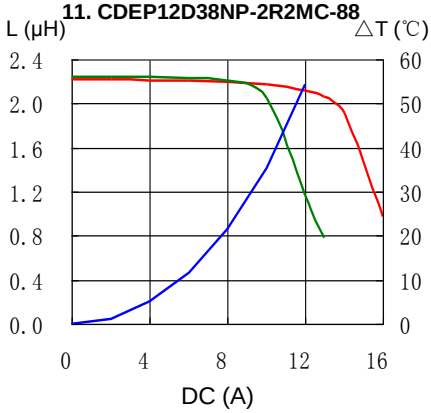
9. CDEP12D38NP-0R8MC-88



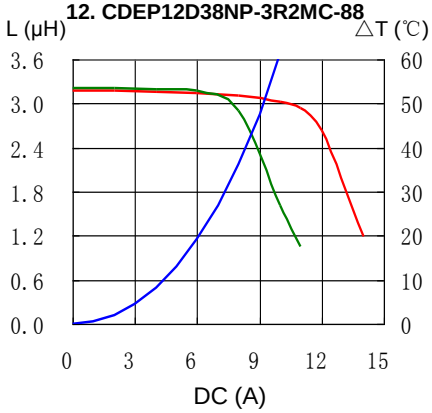
10. CDEP12D38NP-1R4MC-88



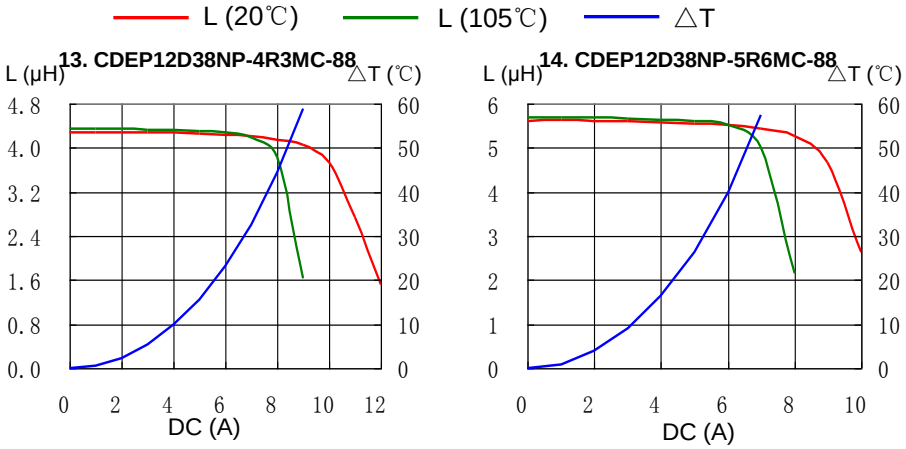
11. CDEP12D38NP-2R2MC-88



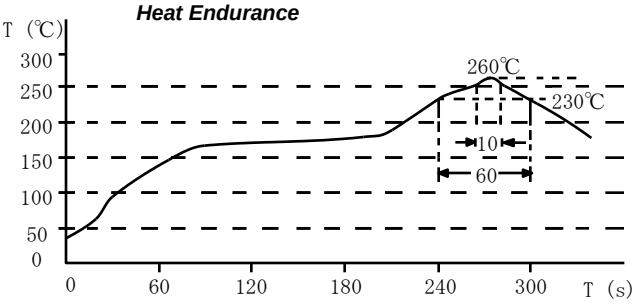
12. CDEP12D38NP-3R2MC-88

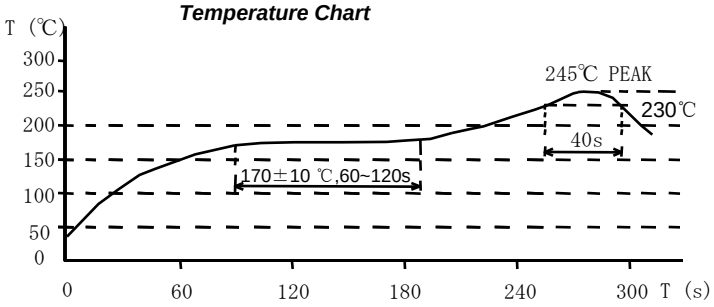


Saturation Current & Temperature Rise Graph



Solder Reflow Condition





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