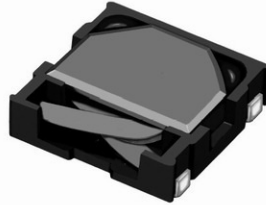


# SMD Power Inductor CEP12D38



## Description

- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 12.8 × 12.8 × 4.0 mm Max.
- Product weight: 1.83g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

## Environmental Data

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

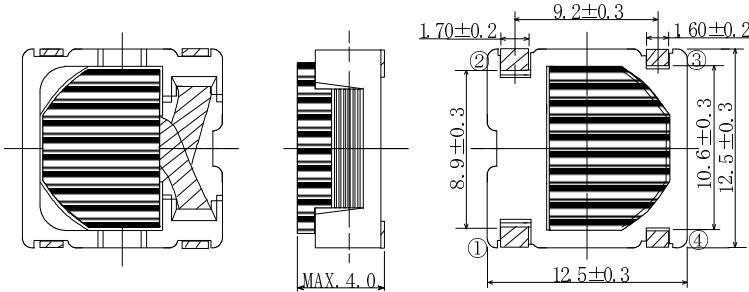
## Packaging

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

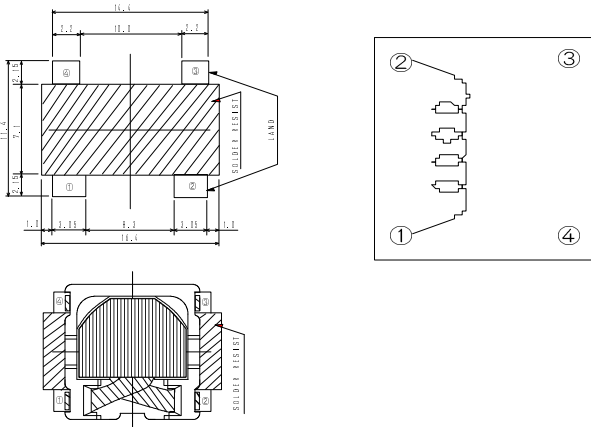
## Applications

- Ideally used in Notebook PC, CPU power supply.

## Dimension - [mm]



## Land pattern and Schematics - [mm]



# SMD Power Inductor CEP12D38



## Electrical Characteristics - 1

PART NO.	STAMP	INDUCTANCE [ WITHIN ] ※1	D.C.R. (mΩ) [MAX.] (Typ.) (at 20°C)	SATURATION CURRENT ( A ) ※2		TEMPERATURE RISE CURRENT ( A ) ※3
				(at 20°C)	(at100°C)	
CEP12D38NP-0R6MC-H	0R6MH	0.6 μ H ±20%	6.0(5.0)	24.4	20.0	11.5
CEP12D38NP-1R1MC-H	1R1MH	1.1 μ H ±20%	7.2(6.0)	18.1	14.6	10.0
CEP12D38NP-1R8MC-H	1R8MH	1.8 μ H ±20%	8.6(7.1)	13.9	11.5	9.5
CEP12D38NP-2R6MC-H	2R6MH	2.6 μ H ±20 %	12.1(10.1)	12.2	9.9	8.0

## Electrical Characteristics - 2

PART NO.	STAMP	INDUCTANCE [ WITHIN ] ※1	D.C.R. (mΩ) [MAX.] (Typ.) (at 20°C)	SATURATION CURRENT ( A ) ※2		TEMPERATURE RISE CURRENT ( A ) ※3
				(at 20°C)	(at100°C)	
CEP12D38NP-1R0MC	1R0M	1.0 μ H ±20%	6.0(5.0)	14.8	12.2	11.5
CEP12D38NP-1R8MC	1R8M	1.8 μ H ±20%	7.2(6.0)	11.0	9.0	10.0
CEP12D38NP-2R8MC	2R8M	2.8 μ H ±20%	8.6(7.1)	8.8	7.4	9.5
CEP12D38NP-4R0MC	4R0M	4.0 μ H ±20%	12.1(10.1)	7.2	6.2	8.0

※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.

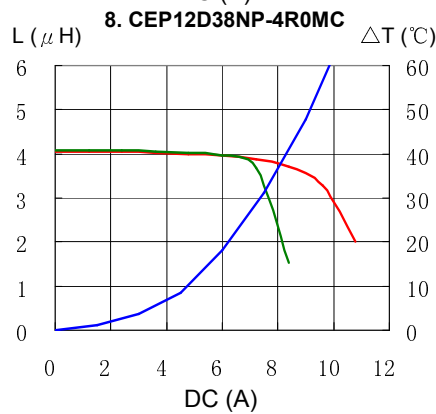
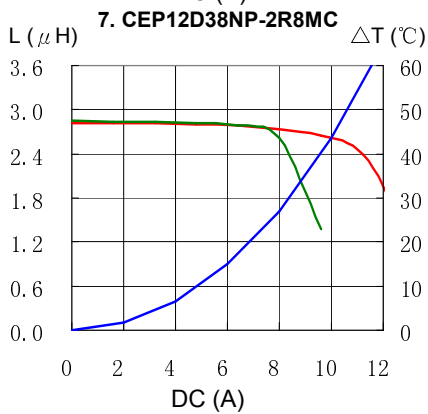
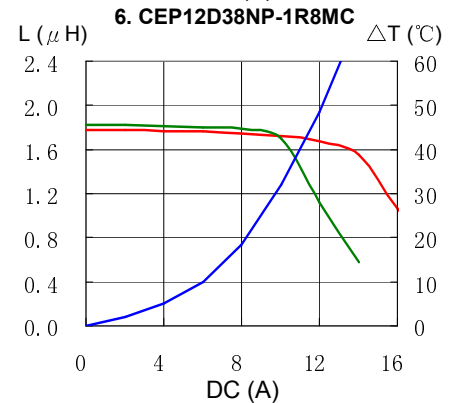
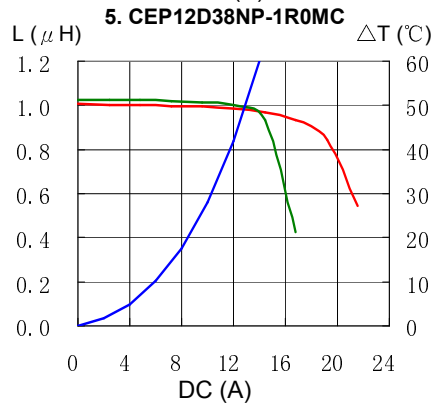
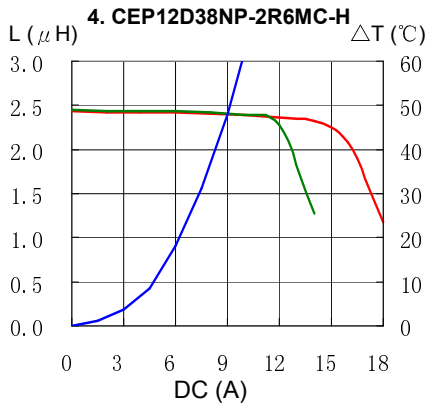
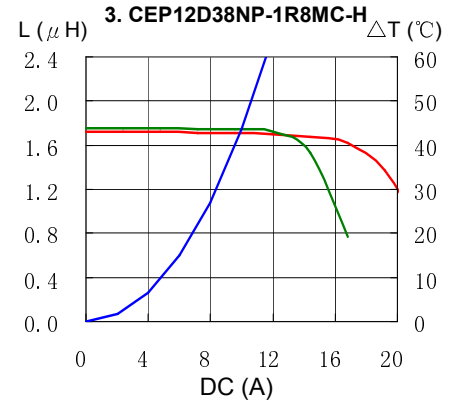
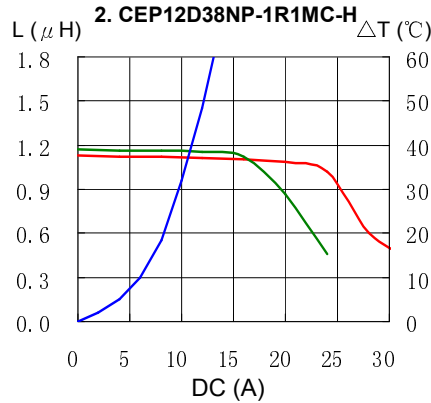
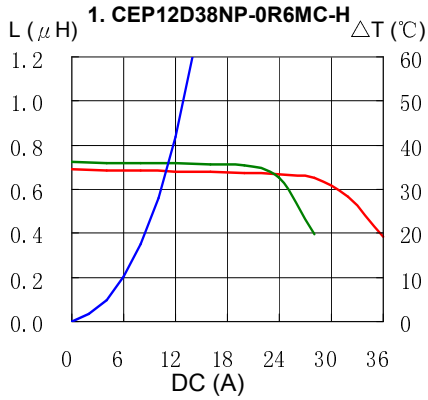
※3. Temperature rise current: The value of D.C. current when the temperature rise is  $\Delta t=40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ ).

# SMD Power Inductor CEP12D38



## Saturation Current & Temperature Rise Graph

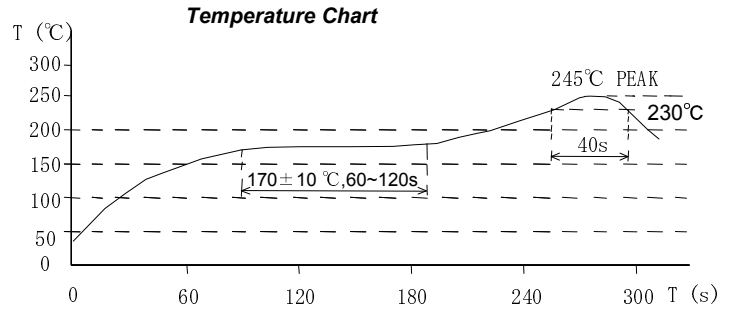
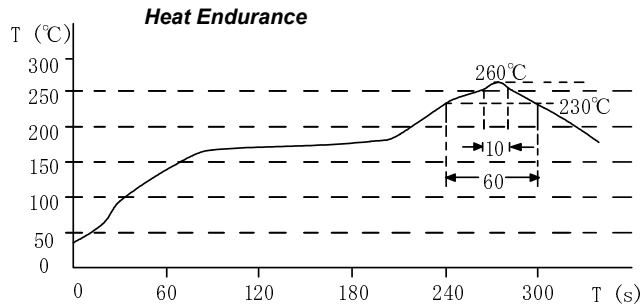
— L (20°C) — L (100°C) —  $\Delta T$



# SMD Power Inductor CEP12D38



## Solder Reflow Condition



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