



◆ **Features**

- 1、Magnetic-resin shielded construction reduces buzz noise to ultra-low levels;
- 2、Metallization on ferrite core results in excellent shock resistance and damage-free durability;
- 3、Closed magnetic circuit design reduces leakage
- 4、Small and low profile inductor;
- 5、Take up less PCB real estate and save more power。



◆ **Applications**

- 1、Smart phone;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive systems;
- 7、Telecomm base stations。

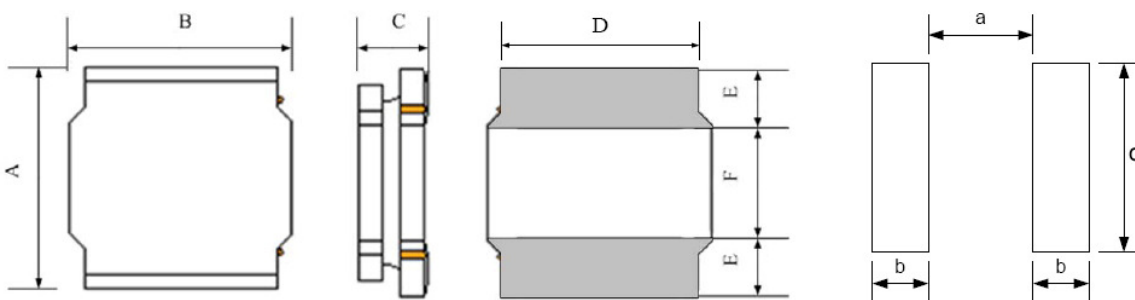
◆ **Lead Free Part Numbering**

CMLW 3012 P 2R2 M S T
(1) (2) (3) (4) (5) (6) (7)

- (1) Series Type
- (2) Dimension : L×W×H(3.0×3.0×1.2mm)
- (3) Material Code
- (4) Inductance: R47=0.47μH ;
2R2=2.2μH; 100=10μH
- (5) Inductance Tolerance: M=±20%, N=±30%
- (6) Company Code
- (7) Packaging : Tape Carrier Package

◆ **Dimensions**

Recommended Land Pattern



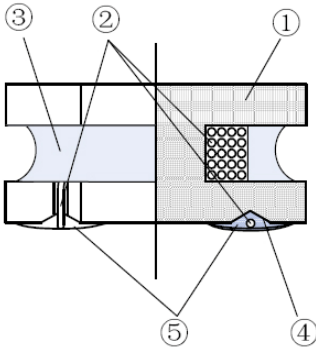
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW3012P	3.0±0.2	3.0±0.2	1.2Max.	2.6±0.2	0.75±0.2	1.5±0.2	1.5	0.8	3.2

◆ **Electrical Characteristics**

- 1) Operating temperature range (Including self-heating): -40°C ~ +125°C
- 2) Storage temperature range (packaging conditions): -10°C ~ +40°C and RH 70% (Max.)

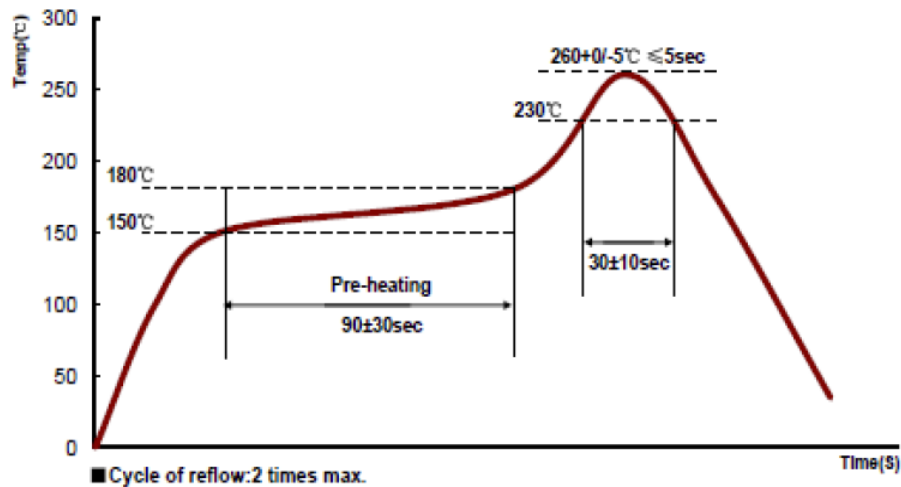
◆ **Construction and material**



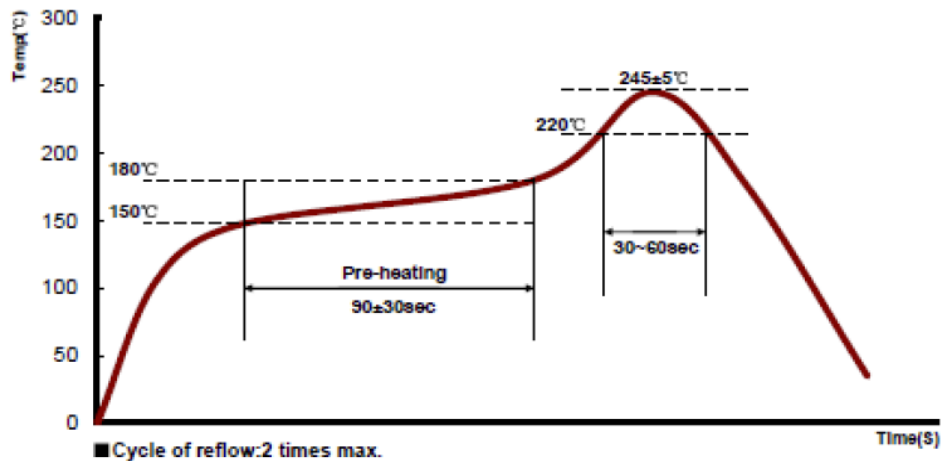
No.	Components	Material
①	Core	Soft magnetic Metal
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	substrate	FeNiCu/Ag or Ag/Ni/Sn
⑤	Top Electrodes	Sn alloy
⑥	Marking	Nitrocellulose

◆ **REFLOW-PROFILE**

Limit Profile



Standard Profile (for EOC Solder paste S70G-HF)



◆ **Specification**

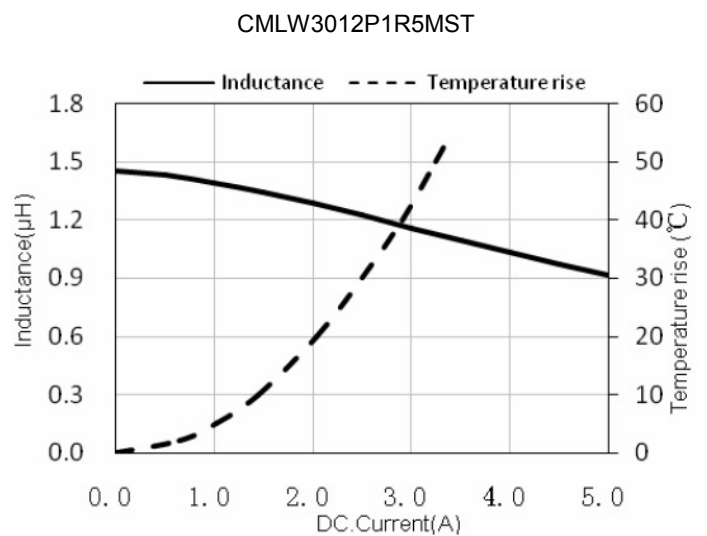
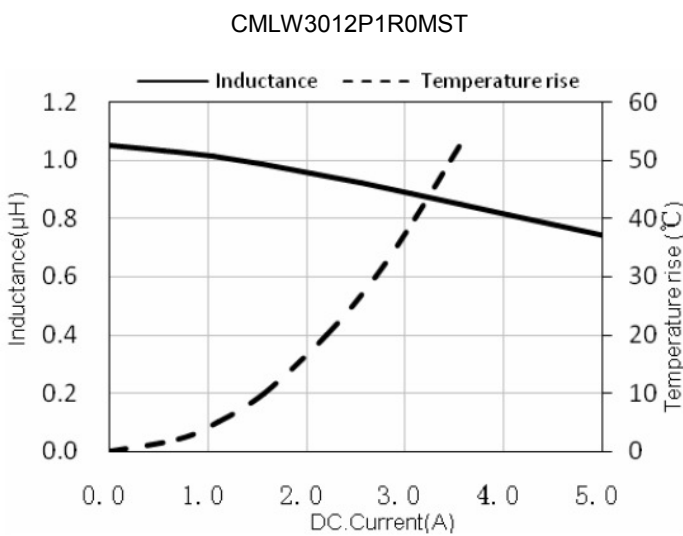
Part Number	Inductance @100KHz, 1V (μH)	DC Resistance($\text{m}\Omega$)		Saturation Current Isat		Heat Rating Current Irms	
		DCR		Min. (A)	Typ. (A)	Min. (A)	Typ. (A)
		Typ.	Max.				
CMLW3012P Series							
CMLW3012P1R0MST	1.0 \pm 20%	45	54	4.20	5.40	2.70	3.10
CMLW3012P1R5MST	1.5 \pm 20%	64	74	3.40	4.10	2.50	2.90
CMLW3012P2R2MST	2.2 \pm 20%	90	108	2.80	3.35	2.05	3.25
CMLW3012P3R3MST	3.3 \pm 20%	129	155	2.20	2.60	1.70	2.00
CMLW3012P4R7MST	4.7 \pm 20%	196	235	2.00	2.50	1.30	1.50
CMLW3012P100MST	10 \pm 20%	395	474	1.20	1.45	1.00	1.15

◆ **Note**

- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from 20°C ambient.

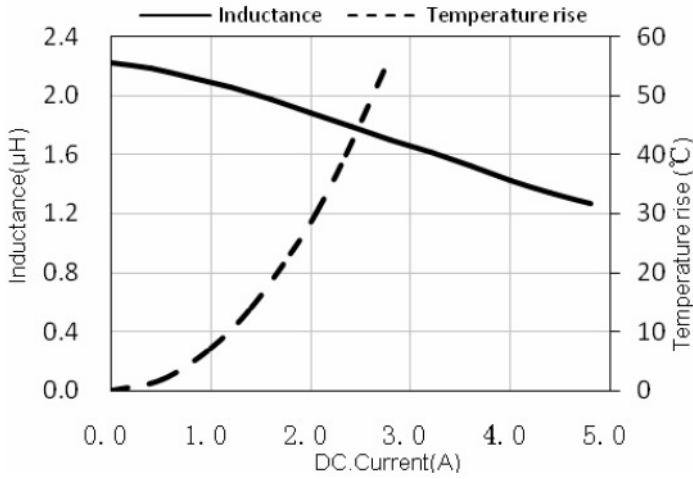
◆ **Standard Packing Quantity: 2000 pcs/reel**

◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

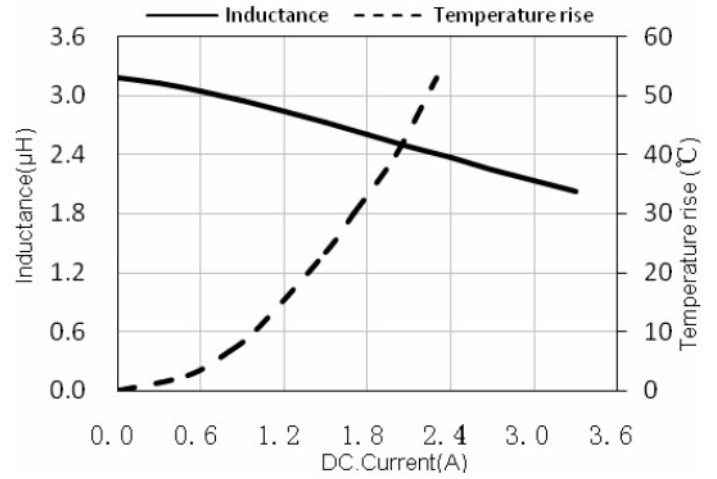


◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

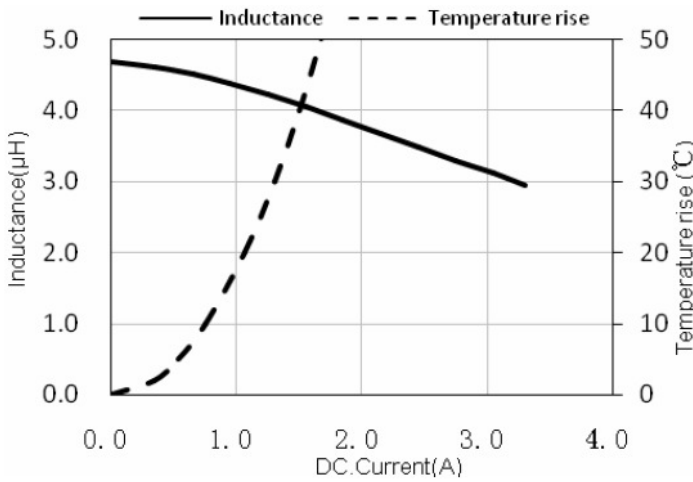
CMLW3012P2R2MST



CMLW3012P3R3MST



CMLW3012P2R2MST



CMLW3012P3R3MST

