

## Wire Wound SMD Power Inductor



### ◆ 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.

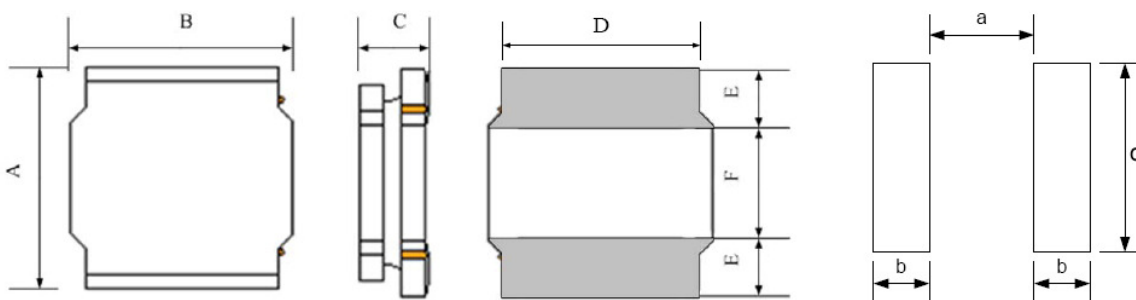
### ◆ Lead Free Part Numbering

**SLW 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



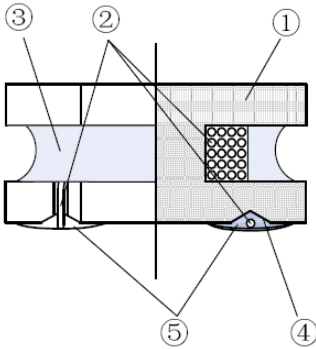
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
SLW0312P	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):  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- 2) Storage temperature range (packaging conditions):  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$  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

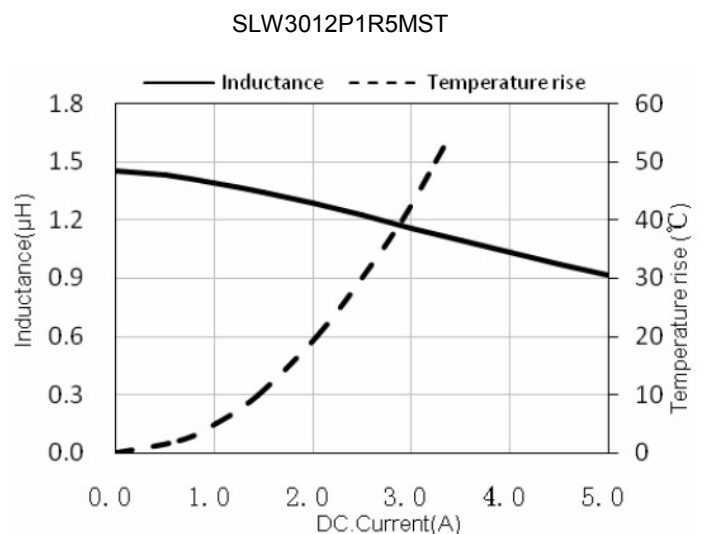
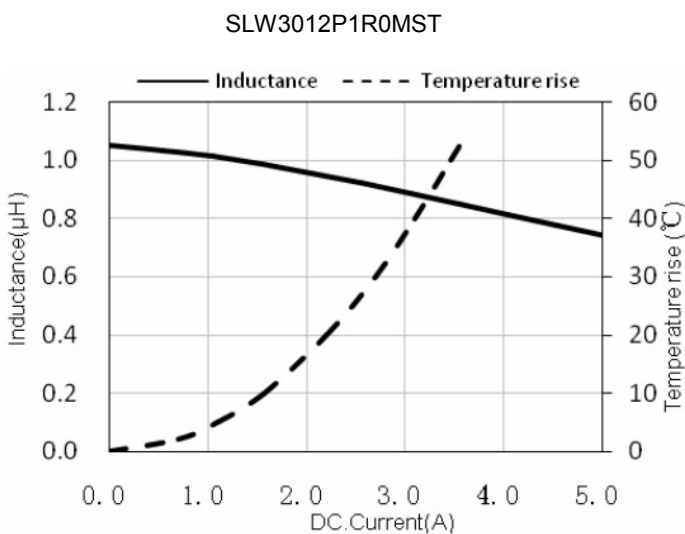
Part Number	Inductance @100KHz, 1V ( $\mu\text{H}$ )	DC Resistance( $\text{m}\Omega$ )		Saturation Current Isat		Heat Rating Current Irms	
		DCR		Min(A)	Typ. (A)	Min(A)	Typ. (A)
		Typ.	Max.				
<b>SLW3012P Series</b>							
SLW3012P1R0MST	1.0 $\pm$ 20%	45	54	4.20	5.40	2.70	3.10
SLW3012P1R5MST	1.5 $\pm$ 20%	64	74	3.40	4.10	2.50	2.90
SLW3012P2R2MST	2.2 $\pm$ 20%	90	108	2.80	3.35	2.05	3.25
SLW3012P3R3MST	3.3 $\pm$ 20%	129	155	2.20	2.60	1.70	2.00
SLW3012P4R7MST	4.7 $\pm$ 20%	196	235	2.00	2.50	1.30	1.50
SLW3012P100MST	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.

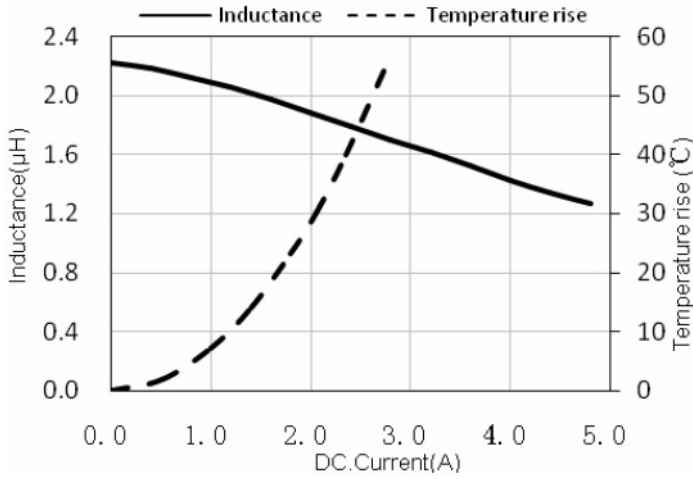
## ◆ Standard Packing Quantity: 2000 pcs/reel

## ◆ TYPICAL ELECTRICAL CHARACTERISTICS

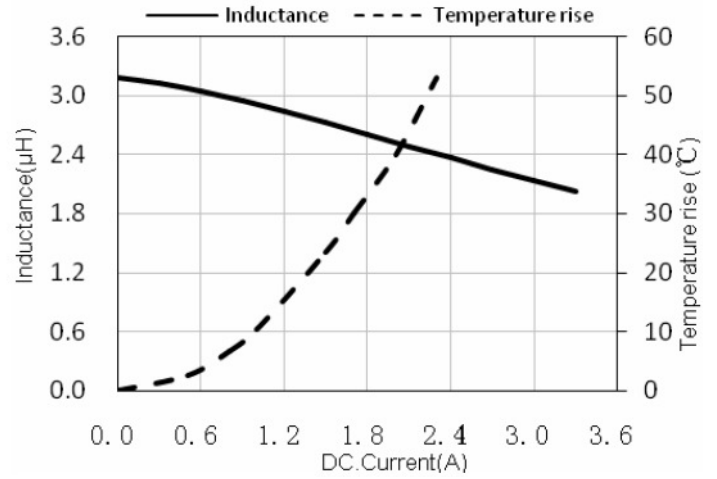


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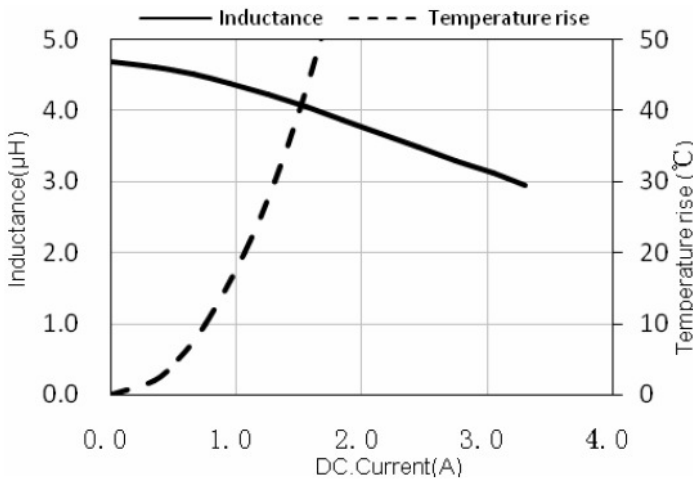
SLW3012P2R2MST



SLW3012P3R3MST



SLW3012P2R2MST



SLW3012P3R3MST

