

## 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

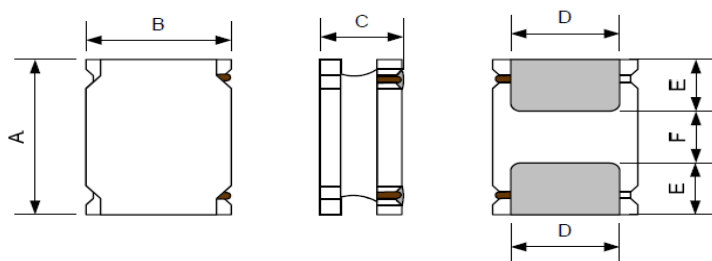
- 1、Smart phone;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

### ◆ Lead Free Part Numbering

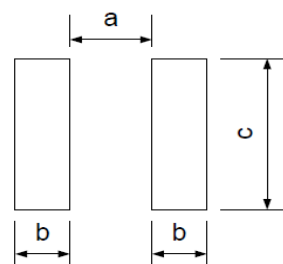
**SLW 4012 P 2R2 M S T**  
**(1) (2) (3) (4) (5) (6) (7)**

- (1) Series Type
- (2) Dimension : L×W×H(4.0×4.0×1.2mm)
- (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



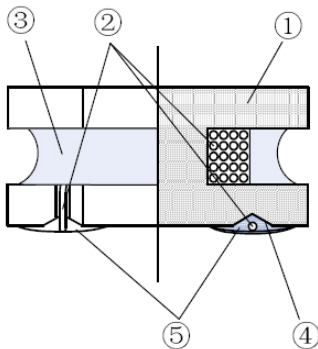
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
SLW4012P	4.0±0.2	4.0±0.2	1.2Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.90	1.10	3.7

## ◆ 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.)

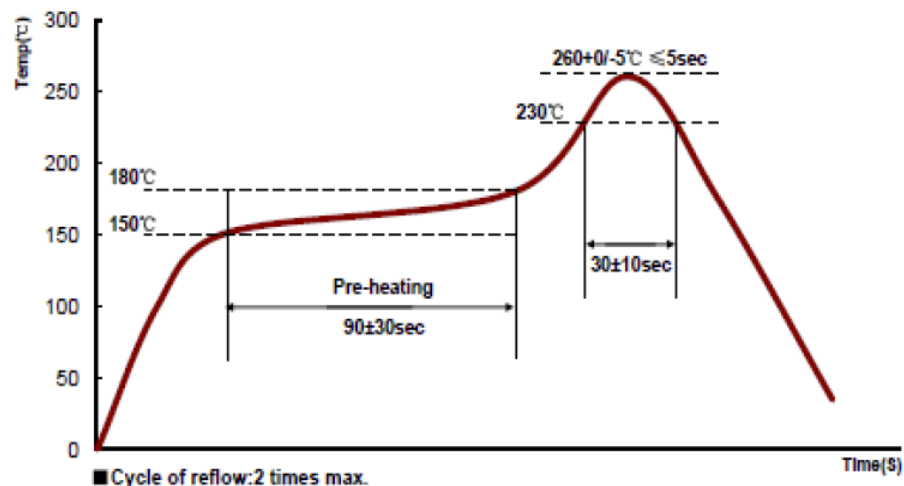
## ◆ Construction and material



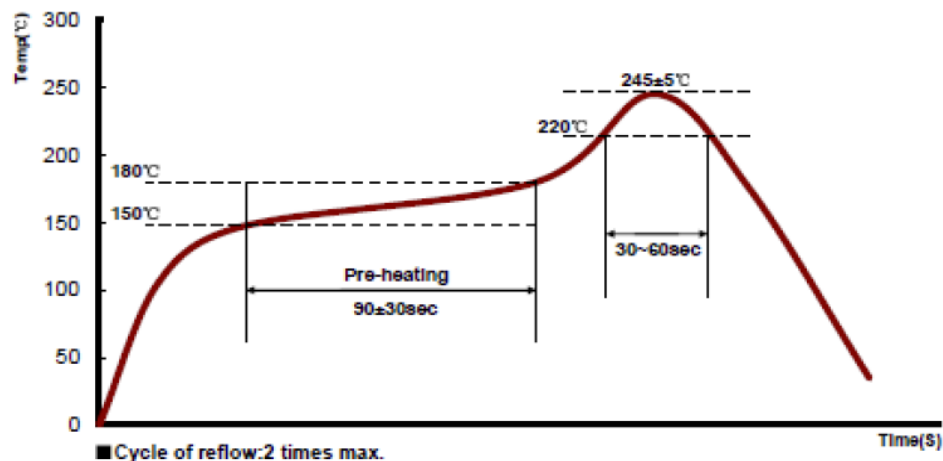
Code	Part Name	Material Name
①	Ferrite Core	Ni-Zn Ferrite
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	Plating Electrodes	Ag
		Ni
		Sn
⑤	Outer Electrodes	Top surface solder coating Sn、Ag、Cu

## ◆ 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 Typ. (A)	Heat Rating Current Typ. (A)
		Max.	Typ.		
		DCR		$I_{\text{sat}}$	$I_{\text{rms}}$
<b>SLW4012P Series</b>					
SLW4012PR47MST	0.47 $\pm$ 20%	43	36	7.50	3.70
SLW4012PR68MST	0.68 $\pm$ 20%	60	46	6.90	3.50
SLW4012P1R0MST	1.00 $\pm$ 20%	65	51	5.40	3.30
SLW4012P1R5MST	1.50 $\pm$ 20%	86	64	4.00	3.00
SLW4012P2R2MST	2.20 $\pm$ 20%	110	110	3.20	2.80
SLW4012P3R3MST	3.30 $\pm$ 20%	150	120	2.90	2.60
SLW4012P4R7MST	4.70 $\pm$ 20%	195	135	2.60	2.30
SLW4012P6R8MST	6.80 $\pm$ 20%	230	185	2.00	1.80
SLW4012P100MST	10.00 $\pm$ 20%	310	250	1.80	1.60
SLW4012P150MST	15.00 $\pm$ 20%	500	400	1.50	1.25
SLW4012P220MST	22.00 $\pm$ 20%	680	530	1.20	1.10

### ◆ Note

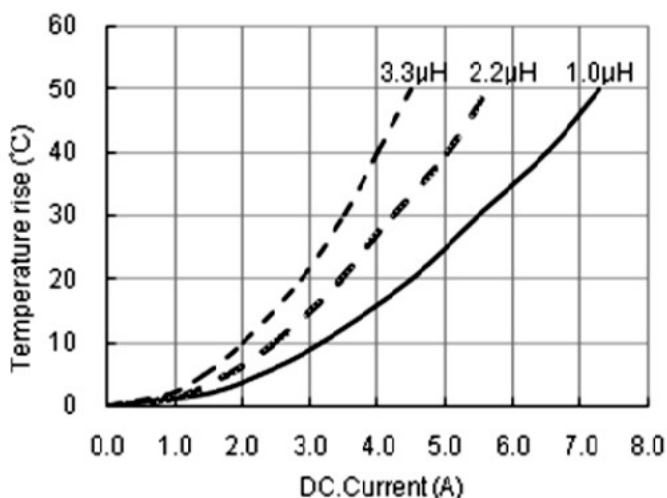
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current:  $I_{\text{sat}}$  or  $I_{\text{rms}}$ , whichever is smaller;
- 3:  $I_{\text{sat}}$ : DC current at which the inductance drops approximate 30% from its value without current;
- 4:  $I_{\text{rms}}$ : DC current that causes the temperature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

## ◆ Standard Packing Quantity: 4000 pcs/reel

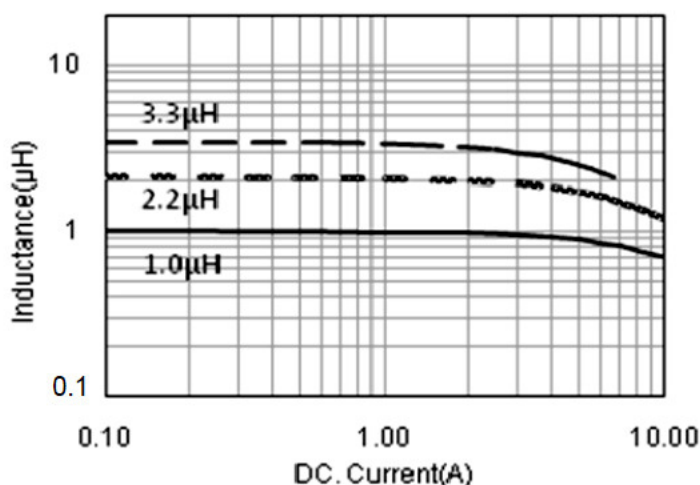
## ◆ TYPICAL ELECTRICAL CHARACTERISTICS

### SLW4012P Series

Temperature vs.DC Current Characteristics



Inductance vs.DC Current Characteristics



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