SLW5020S Series

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 flux and Electro Magnetic Interference (EMI);
4、30% higher current rating than conventional inductors of equal size;
5、Take up less PCB real estate and save more power。

◆ Applications

1、LED Lighting;
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

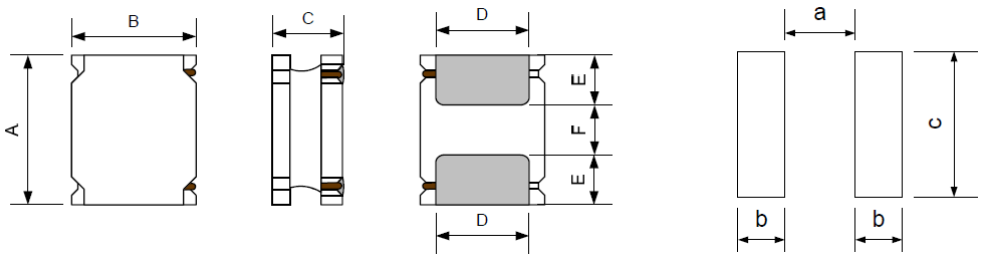
◆ Lead Free Part Numbering

SLW	5020	S	100	M	S	T
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series Type
(2) Dimension：L X H
(3) Material Code
(4) Inductance：2R2=2.2μH；
100=10μH；101=100μH
(5) Inductance Tolerance：M=±20%, N=±30%
(6) Company Code
(7) Packaging：Tape Carrier Package

◆ Dimensions

Recommended Land Pattern



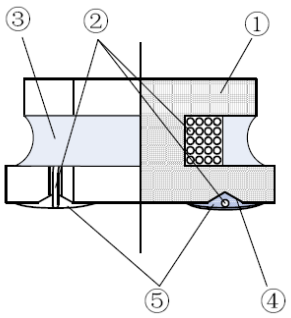
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
SLW5020S	5.0±0.2	5.0±0.2	2.0Max.	4.0±0.2	1.25±0.2	2.50±0.2	2.1	1.5	4.4

◆ Electrical Characteristics

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

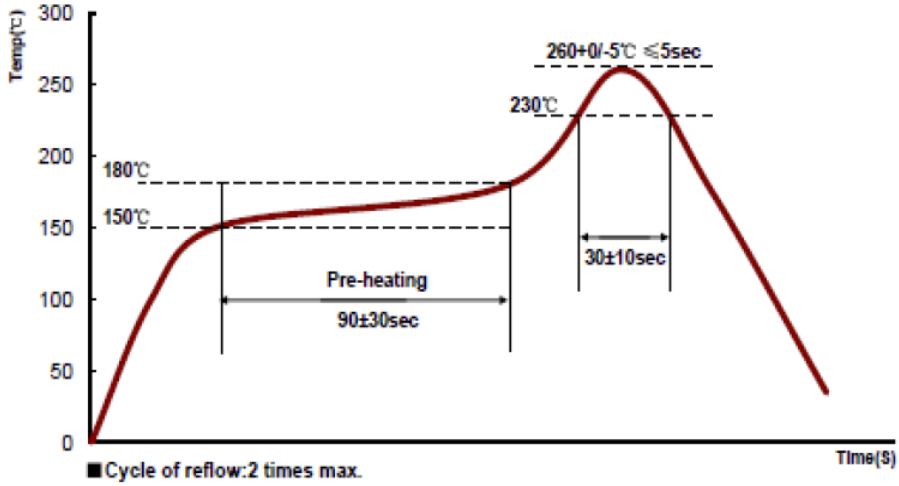
◆ Construction and material



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

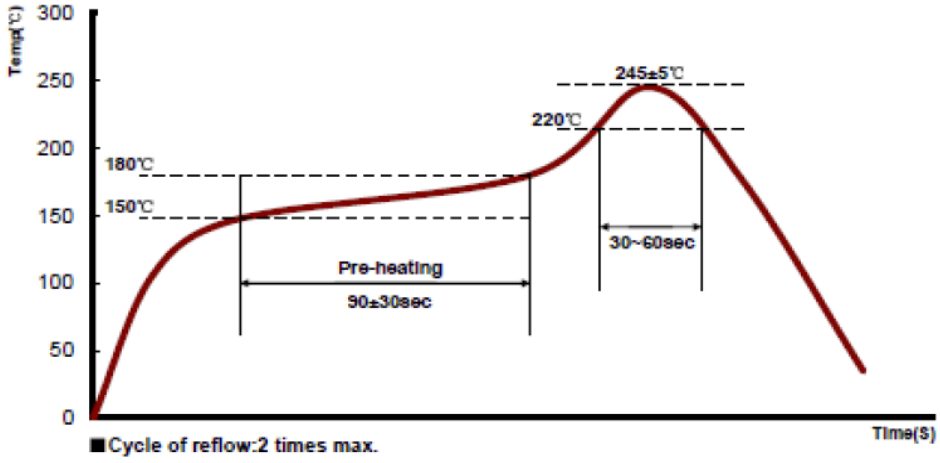
◆ REFLOW-PROFILE

Limit Profile



■Cycle of reflow:2 times max.

Standard Profile (for EOC Solder paste S70G-HF)



■Cycle of reflow:2 times max.

◆ Specification

Part Number	Inductance @100KHz,1V (μH)	DC Resistance ±30% (Ω) DCR	Min.Self-resonant Frequency（MHz） S.R.F	Saturation Current(A) Isat	Heat Rating Current (A) Irms
CMLW5020S Series					
SLW5020SR47NST	0.47±30%	0.013	160	6.15	4.60
SLW5020SR68NST	0.68±30%	0.017	120	5.50	4.00
SLW5020S1R0NST	1.0±30%	0.020	97	4.33	3.70
SLW5020S1R5NST	1.5±30%	0.026	80	3.85	3.20
SLW5020S2R2MST	2.2±20%	0.035	61	3.85	2.90
SLW5020S3R3MST	3.3±20%	0.044	46	3.25	2.40
SLW5020S4R7MST	4.7±20%	0.057	33	2.50	2.25
SLW5020S5R6MST	5.6±20%	0.064	33	2.30	2.05
SLW5020S6R8MST	6.8±20%	0.087	30	1.80	1.70
SLW5020S100MST	10±20%	0.110	24	1.79	1.50
SLW5020S150MST	15±20%	0.165	20	1.44	1.25
SLW5020S220MST	22±20%	0.235	16	1.18	1.05
SLW5020S330MST	33±20%	0.370	13	0.97	0.83
SLW5020S470MST	47±20%	0.525	11	0.81	0.70
SLW5020S680MST	68±20%	0.885	8.8	0.70	0.53
SLW5020S101MST	100±20%	1.060	7.6	0.57	0.49

◆ 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 (△ T =40°C) from 20°C ambient.

◆ Standard Packing Quantity：2500 pcs/reel

◆ TYPICAL ELECTRICAL CHARACTERISTICS

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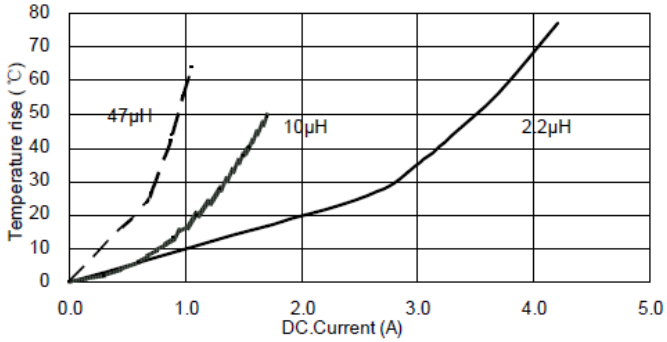
Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics