Sunltech

SLW4020S 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

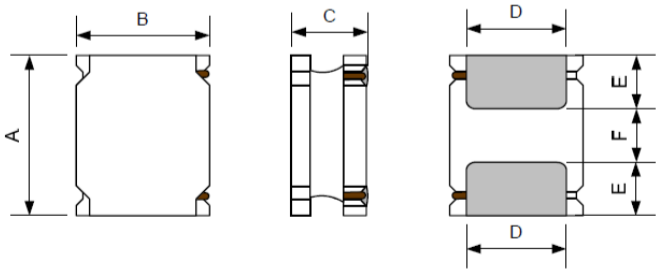
1、LED Lighting；
2、Mobile devices with multifunction such as adding color TV and camera；
3、Flat-screen TVs, blue-ray disc recorders, set top boxes；
4、Notebooks, desktop computers, servers, graphic cards；
5、Portable gaming devices, personal navigation systems, personal multimedia devices；
6、Automotive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

◆ Lead Free Part Numbering

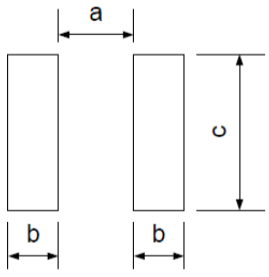
SLW	4020	S	100	M	S	T
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(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



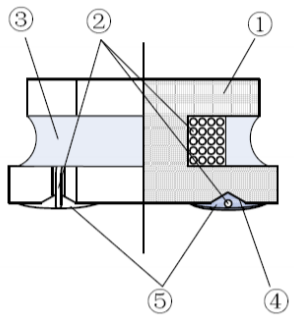
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
SLW4020S	4.0±0.2	4.0±0.2	2.0Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.9	1.1	3.7

◆ Electrical Characteristics

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

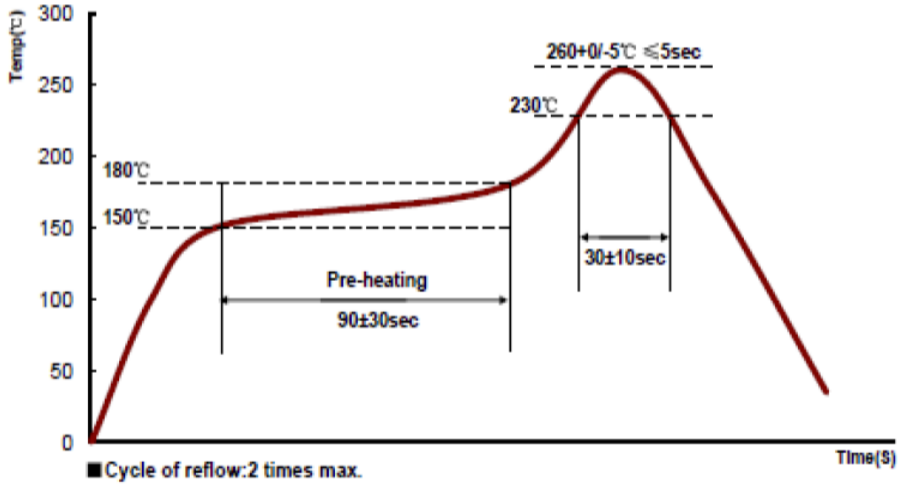
◆ Construction and material



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

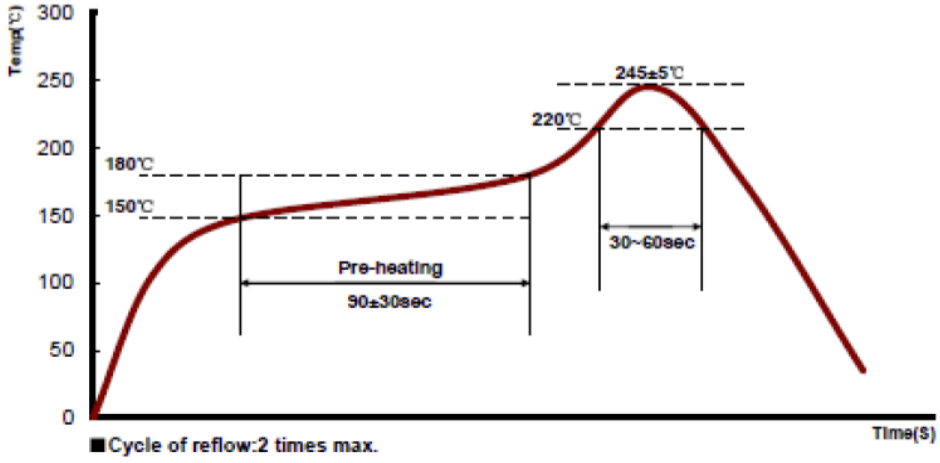
◆ REFLOW-PROFILE

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
SLW4020S Series					
SLW4020SR24NST	0.24±30%	0.010	86	10.50	4.50
SLW4020SR47NST	0.47±30%	0.022	83	7.00	4.00
SLW4020SR68NST	0.68±30%	0.028	79	6.40	2.80
SLW4020S1R0MST	1.0±20%	0.029	75	4.85	2.15
SLW4020S1R5MST	1.5±20%	0.035	71	4.45	1.98
SLW4020S2R2MST	2.2±20%	0.040	49	3.40	1.85
SLW4020S3R3MST	3.3±20%	0.070	44	3.20	1.40
SLW4020S4R7MST	4.7±20%	0.075	42	2.35	1.34
SLW4020S5R1MST	5.1±20%	0.085	42	2.30	1.27
SLW4020S5R6MST	5.6±20%	0.090	30	2.20	1.22
SLW4020S6R2MST	6.2±20%	0.115	36	2.15	1.08
SLW4020S6R8MST	6.8±20%	0.125	33	2.20	1.04
SLW4020S100MST	10±20%	0.165	26	1.60	0.90
SLW4020S120MST	12±20%	0.175	26	1.50	0.88
SLW4020S150MST	15±20%	0.230	24	1.35	0.77
SLW4020S220MST	22±20%	0.350	15	1.05	0.62
SLW4020S330MST	33±20%	0.550	11	0.85	0.49
SLW4020S390MST	39±20%	0.650	11	0.82	0.46
SLW4020S470MST	47±20%	0.710	10	0.74	0.44
SLW4020S680MST	68±20%	1.060	7.7	0.61	0.36
SLW4020S820MST	82±20%	1.170	7.2	0.56	0.34
SLW4020S101MST	100±20%	1.350	6.3	0.52	0.31

◆ Note

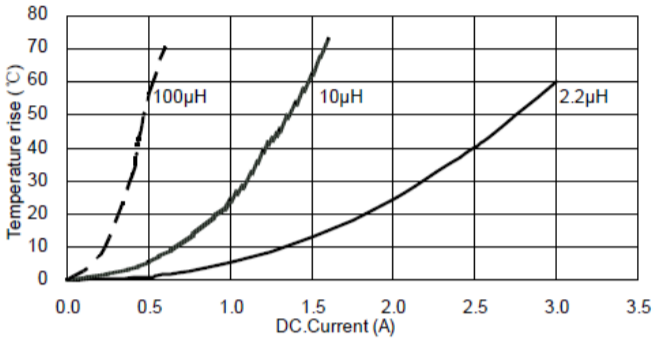
1：All test data is referenced to 20°C ambient;
2：Rated current: Isat or Irms, whichever is smaller;
3：Isat: DC current at which the inductance drops approximate 30% from its value without current;
4：Irms: DC current that causes the temperature rise (△T =40°C) from 20°C ambient.

◆ Standard Packing Quantity：3000 pcs/reel

◆ TYPICAL ELECTRICAL CHARACTERISTICS

SLW4020S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

