SLW6045S 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

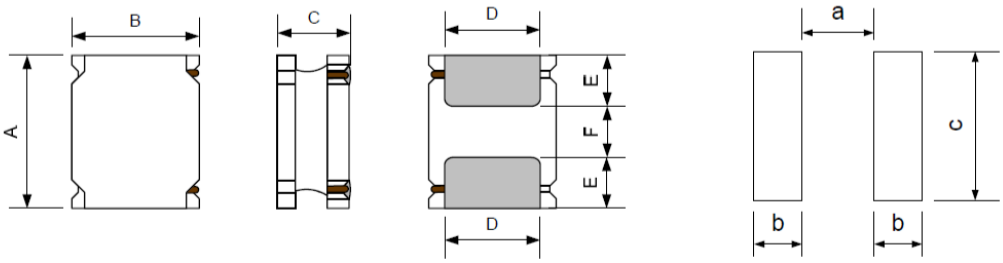
◆ Lead Free Part Numbering

SLW	6045	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



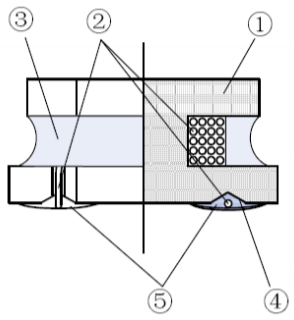
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
SLW6045S	6.0±0.3	6.0±0.3	4.5Max.	4.9±0.3	1.55±0.3	2.90±0.3	2.8	1.7	5.7

◆ Electrical Characteristics

1) Operating and storage temperature range (individual chip without packing): cking): -25℃ ~ +125℃
2) Storage temperature range (packaging conditions): -10℃~+40℃ and RH 70% (Max.)

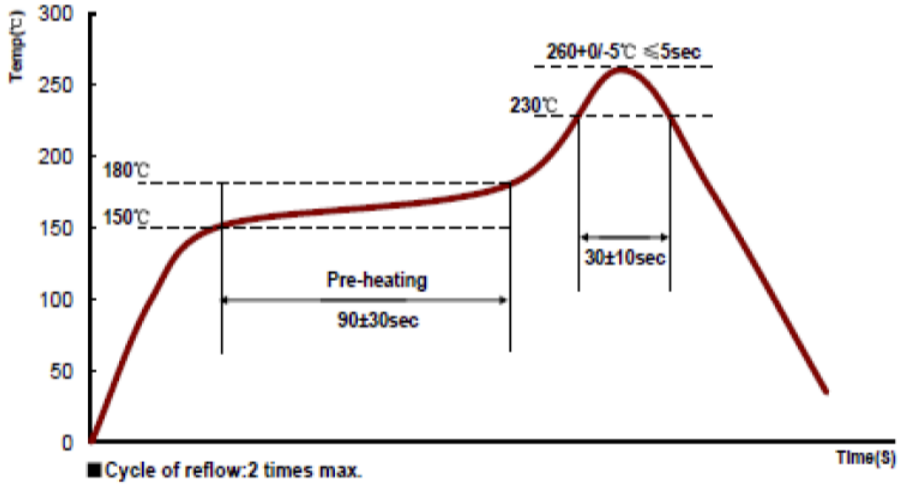
◆ Construction and material



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

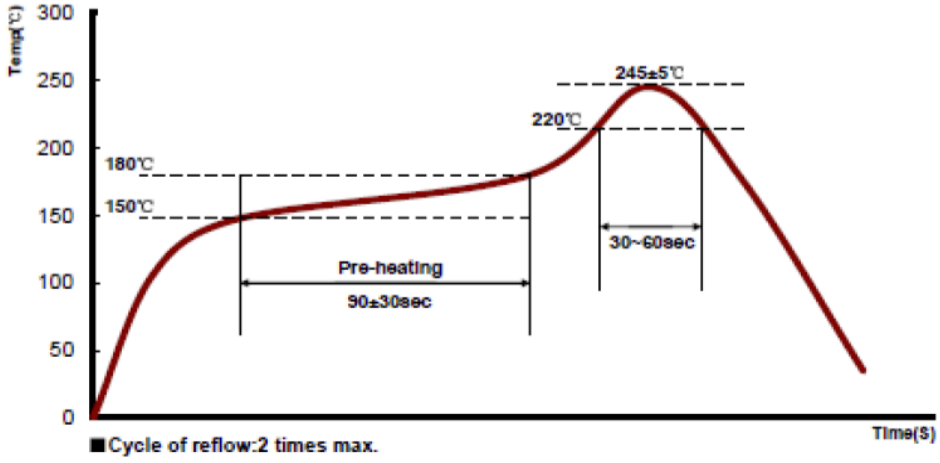
◆ REFLOW-PROFILE

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
SLW6045S Series					
SLW6045SR82NST	0.82±30%	0.008	140	10.40	5.90
SLW6045S1R0MST	1.0±20%	0.011	100	9.85	5.14
SLW6045S1R2MST	1.2±20%	0.016	85	9.00	5.00
SLW6045S1R5MST	1.5±20%	0.012	65	8.80	4.95
SLW6045S1R8MST	1.8±20%	0.012	74	7.60	4.95
SLW6045S2R2MST	2.2±20%	0.014	52	6.75	4.60
SLW6045S3R3MST	3.3±20%	0.021	32	5.90	3.70
SLW6045S3R6MST	3.6±20%	0.021	28	5.25	3.70
SLW6045S4R7MST	4.7±20%	0.026	24	5.00	3.35
SLW6045S5R1MST	5.1±20%	0.026	23	4.40	3.30
SLW6045S5R6MST	5.6±20%	0.029	23	4.15	3.15
SLW6045S6R3MST	6.3±20%	0.045	21	5.50	3.80
SLW6045S6R8MST	6.8±20%	0.031	20	3.90	3.00
SLW6045S7R5MST	7.5±20%	0.034	18	3.50	2.90
SLW6045S8R2MST	8.2±20%	0.043	21	3.90	2.60
SLW6045S100MST	10±20%	0.048	15	3.20	2.45
SLW6045S120MST	12±20%	0.058	13	2.80	2.20
SLW6045S150MST	15±20%	0.068	12	2.50	2.05
SLW6045S220MST	22±20%	0.089	10	2.05	1.80
SLW6045S330MST	33±20%	0.137	7.8	1.65	1.45
SLW6045S470MST	47±20%	0.200	6.4	1.40	1.20
SLW6045S560MST	56±20%	0.221	6.4	1.30	1.10
SLW6045S680MST	68±20%	0.289	6.4	1.20	1.00
SLW6045S820MST	82±20%	0.341	4.9	1.05	0.90
SLW6045S101MST	100±20%	0.433	4.2	0.95	0.80
SLW6045S121MST	120±20%	0.484	4.2	0.85	0.77
SLW6045S151MST	150±20%	0.580	4.2	0.80	0.70
SLW6045S221MST	220±20%	0.834	3.5	0.70	0.59
SLW6045S331MST	330±20%	1.270	2.8	0.57	0.57
SLW6045S471MST	470±20%	2.570	1.5	0.45	0.50
SLW6045S681MST	680±20%	2.900	1.4	0.42	0.35

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
SLW6045S Series					
SLW6045S821MST	820±20%	4.450	1.3	0.40	0.35
SLW6045S102MST	1000±20%	4.800	1.2	0.31	0.30

◆ **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;

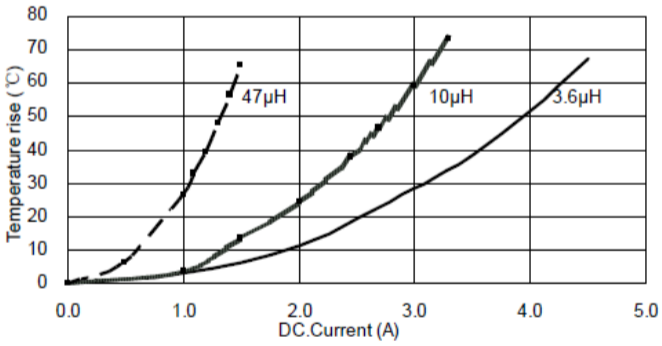
4：Irms: DC current that causes the temperature rise (△T =40°C) from 20°C ambient.

◆ **Standard Packing Quantity：1500 pcs/reel**

◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

SLW6045S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

