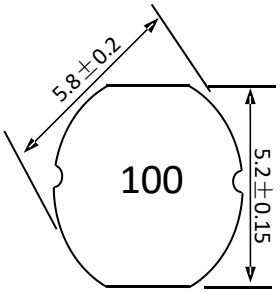
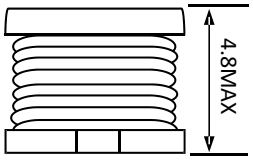
KEEN SIDE

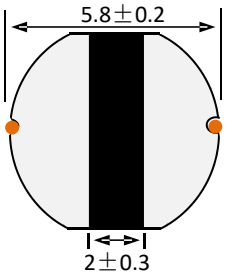
KSE-SD0604-100ML

Power Inductors

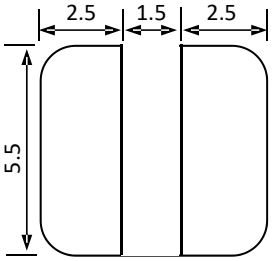
● Dimension & Appearance (Unit:mm)



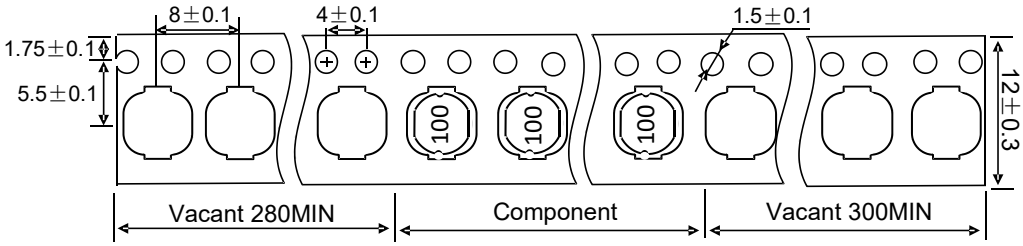


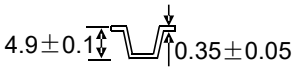


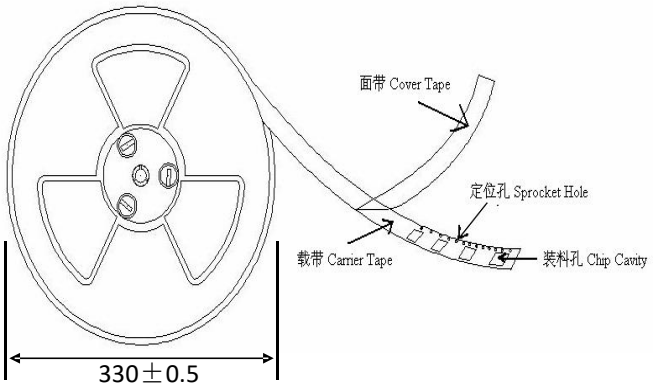
PCB PATTERN

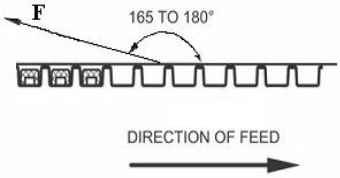


●Packing method and dimension and Printing Direction(Unit:mm)









Minimum packing method & packing size		
Number of volumes	**Total quantity**	**Carton size**
1 volume	**1500pcs**	**No packing case**
8 volume	**12000pcs**	**356*356*167**
12 volume	**18000pcs**	**358*358*252**

● Material list

Item	Material Name	Material Spec	
1	Magnetic materials	JN4H DR5.8*4.5 B2.5 F2.5 T0.45	
2	Enameled wire	2UEW 180℃	
3	Tin	Environment-friendly unleaded	
4	The packing way	Concave plastic belt pc	
5	The packing way	Plastic disc	
6			
7			
8			
9			
10			

● Electrical characteristic

L: 10±10% AT 100 (KHz) 0.25 V

DCR: 90 (mΩ)MAX AT 25 ℃

IDC: 2.7 (A)MAX AT 100 (KHz) 0.25 V

	Inductance &Tolerance (UH)	Test Freq (KHz)	Test Vol (V)	DC Resistance Max (mΩ)MAX	Rated DC Current (A)MAX
Testing Standards	10±10%	100	0.25	90	2.7 (≥90% Ls)
1	10.20	100	0.25	70.9	OK
2	10.08	100	0.25	69.7	OK
3	10.16	100	0.25	70.6	OK
4	10.03	100	0.25	70.3	OK
5	10.11	100	0.25	70.9	OK
6	10.14	100	0.25	70.5	OK
7	10.09	100	0.25	71.0	OK
8	10.13	100	0.25	70.7	OK
9	10.21	100	0.25	69.8	OK
10	10.18	100	0.25	70.5	OK
X	10.13			70.5	

● Reliability Testing Ltems

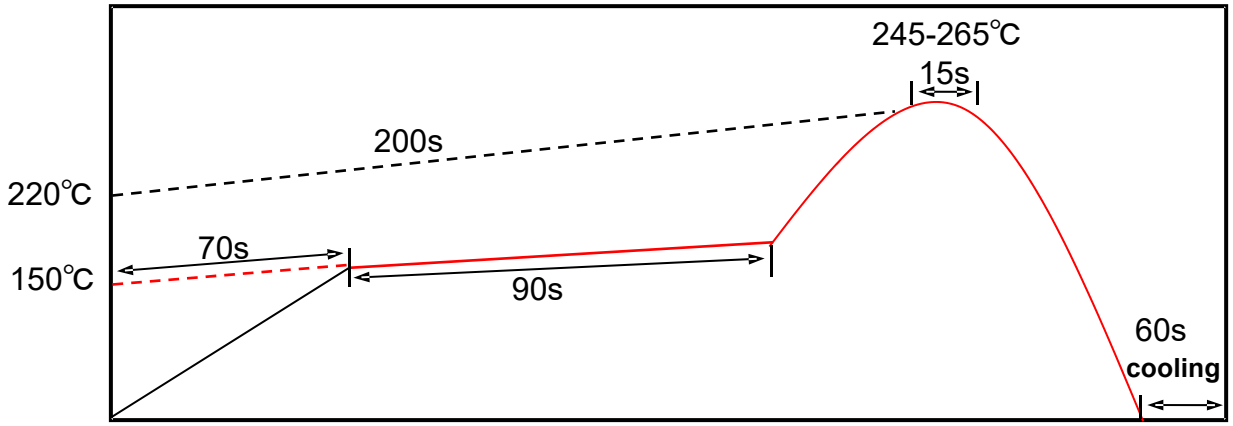
No.	Items	Requirements	Test Methods and Remarks
1	Operting Temperature Range	-40℃ ~ +125℃	Including self-heating temperature rise.
2	Soldering Resistance	1.No visible mechanical damage 2.liductance change:within ±10%	Dip pads in flux and dip in solder pot (96.5sn/3.0Ag/0.5Cu) at 260±5℃ for 10±1 seconds
3	Solderability	90%or more of electrode area shall be coated by new solder	Dip pads in flux and dip in solder pot (96.5sn/3.0Ag/0.5Cu) at 260±5℃ for 5±1 seconds
4	Insulation Resistance	≥100MΩ	100V DC between inductor coil and core for 60 seconds
5	Component Adhesion (Push test)	≥2.0kgf	Inductors shall be subjected to 260±5℃ for 20±5sec Soldering in the base whit 0.3mm solder.And then aplomb electrode wayplus tax 2.0kgf for ten seconds.
6	Over loading	1.There shall be no case deformation or change in appearance 2.The electrical characteristics of inductor to meet the requirements of spec.	Apply twice as rated current for five minutes between inductor terminals,direct current error ±2%
7	Temperature change	1.There shall be no case deformation or change in appearance 2.Inductance shall not change more than ±10%.	+125℃ 1 hour←→-40℃ 1 hour 5 Cycles,Inductors are to be tested after 1 hour at room temperature
8	High temperature	1.There shall be no case deformation or change in appearance 2.Inductance shall not change more than ±10%.	Inductors shall be subjected to+105±5℃for 96±2 hour,Inductors are to be tested after one hour at room temperature
9	Low temperature	1.There shall be no case deformation or change in appearance 2.Inductance shall not change more than ±10%.	Inductors shall be subjected to-40±5℃for 96±2 hour,Inductors are to be tested after one hour at room temperature
10	Life	1.There shall be no case deformation or change in appearance 2.Inductance shall not change more than ±10%.	Inductors shall be store at+105±5℃ for 1000 hours with rated current applide, Normal temperature test

● Recommend Soldering Conditions

Applicable soldering process to the products is reflow soldering.

Soldering Profile

(1) Reflow Soldering Profile



(2) Soldering Iron

Reworking with Sodering Iron must preheating at 150℃ for 1 minute is required, and do not directly touch the core with the tip of the soldering iron. The reworking soldering conditions are as follows:

① Temperature of soldering iron tip: 350℃;
② Soldering iron power output: 30W max.
③ Diameter of soldering iron end: 1.0mm max.
④ Soldering time: within 3 sec.

● Storage Requirements

(1) Storage Period

To maintain the solderability of terminal electrodes and to keep the packing material in good condition, product should be used within 6 months from the time of delivery. And the solderability of products electrodes may decrease as time passes, so in case of storage over 6 months, slderability shall be checked before actual usage.

(2) Storage Conditions

(1) Store products in a warehouse in compliance with the following condition:
Temperature: －10 to +40℃ Humidity: 30~70%RH

(2) Do not subject products to rapid changes in temperature and humidity.

(3) Do not store the products in chemical atmosphere such as one containing sulfurous acid gas or alkaline gas, that will causes poor solderability and corrosion of inductors.

(4) Do not store products in bulk packaging to prevent collision among inductors which causes core wire breakage.chipping and

(5) Store products on pallets to protect from humidity, dust, etc.

(6) Avoid heat shock, vibration, direct sunlight, etc.