

CUSTOMER \_\_\_\_\_

CUSTOMER'S P// \_\_\_\_\_

DESCRIPTION SMD Inductor

SGTE PART NO. AL0307-100K-PF

SAMPLE NC S20061106 REVISION NC A0 DATE 2020/6/11

## SPECIFICATION FOR APPROVAL

FULLY APPROVED	REVISE APPROVED

**SGTE<sup>®</sup> 感通科技**

深圳感通科技有限公司（大陸工廠）

GANTONG TECHNOLOGY (SHENZHEN) CO., LTD.

深圳市平湖街道平湖村萬福路26號

No. 26 Wan fu Road, Ping hu Village. Ping hu town, Shenzhen City.

Tel: 0755-28457600

Fax: 0755-28452952

感通科技有限公司（台灣辦事處）

臺北縣汐止市新台5路一段77號10樓之7

10F~7, NO. 77, Sec. 1, Hsin Tai 5 Road, Shi-chi City, Taipei.

Tel: 886-2-8698-2341

Fax: 886-2-8698-2342

納美科技股份有限公司（香港辦事處）

LAPEE TECHNOLOGY LIMITED

香港九龍尖沙嘴加連威老道嘉蘭圍5-11號利時商業大廈17樓1713室

Room 1713 17/F, Rise Commercial Bldg 5-11 Granville Cui, Granville Rd, Tsim Sha Tsui., Kln

Tel: 852-25301111

Fax: 852-25371111

<http://www.szgte.com>



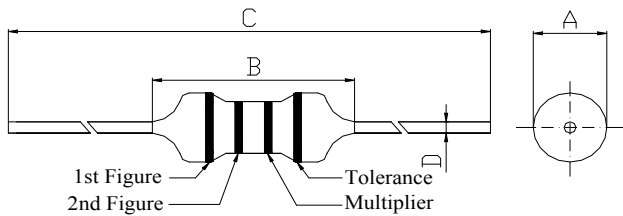
# SPECIFICATION

**RoHS  
COMPLIANT**

Customers Part Number	Item Name	Date	
	SMD Inductor	2020/6/11	
Gan Tong Part NO.	Sample NO.	Revision No.	A0
AL0307-100K-PF	S20061106	Page	1-4

## 1.CONFIGURATION DIMENSIONS(UNIT:mm)

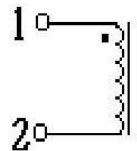
**100% Lead Free**



A	3.0Max
B	7.0Max
C	63.0Ref
D	0.5±0.1

COLOR CODE	
1st	Brown
2nd	Black
3rd	Black
4th	Silver

### SCHEMATIC



## 2.ELECTRICAL CHARACTERISTICS

ITEM	SPEC	FREQUENCY	TEST INSTRUMENTS
L	10uH ± 10%	7.96MHZ	■TH2818 ■TH1775 ■CH502BC
Q	40(Min)		
S.R.F	18MHz(Min)		
DCR	0.8Ω(MAX)		
IDC	370mA(MAX)		

# SPECIFICATION

**RoHS  
COMPLIANT**

Customers Part Number	Item Name	Date	
	SMD Inductor	2020/6/11	
Gan Tong Part NO.	Sample NO.	Revision No.	A0
AL0307-100K-PF	S20061106	Page	2-4

## Electrical Characteristic :

CUSTOMER:				PART NO.:	AL0307-100K-PF			
DESCRIPTION:		FIXED INDUCTOR		SERIES NO.:	AL-SERIES			
TEMP.	25	HUMIDITY	65%	INSPECTION Q'TY	10pcs			
	A	B	D		L	Q	DCR	
ITEM	mm	mm	mm		μH		Ω	
SPEC	3.0Max	7.0Max	0.5±0.1		10uH ± 10%	40(Min)	0.8Ω(MAX)	
TEST FREQ.					7.96MHZ			
01	2.61	6.43	0.50		10.54	60.00	0.65	
02	2.62	6.41	0.50		10.30	69.00	0.64	
03	2.65	6.62	0.50		10.20	67.00	0.64	
04	2.65	6.62	0.50		10.25	93.00	0.65	
05	2.60	6.62	0.50		10.50	65.00	0.64	
06	2.70	6.37	0.50		10.50	66.00	0.65	
07	2.59	6.53	0.50		10.60	61.00	0.68	
08	2.56	6.65	0.50		10.25	67.00	0.66	
09	2.76	6.62	0.49		10.20	66.00	0.65	
10	2.76	6.39	0.51		10.35	65.00	0.68	
Max	2.76	6.65	0.51		10.60	93.00	0.68	
Avg	2.65	6.53	0.50		10.37	67.90	0.65	
Min	2.56	6.37	0.49		10.20	60.00	0.64	
σ	0.07	0.11	0.00		0.15	9.23	0.02	
OK/NG								

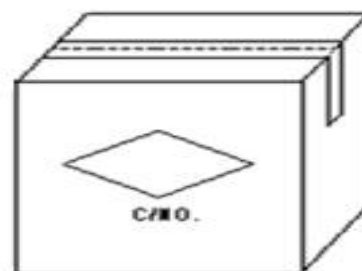
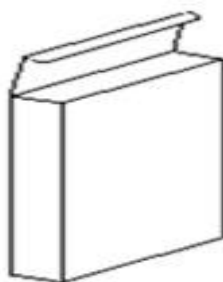
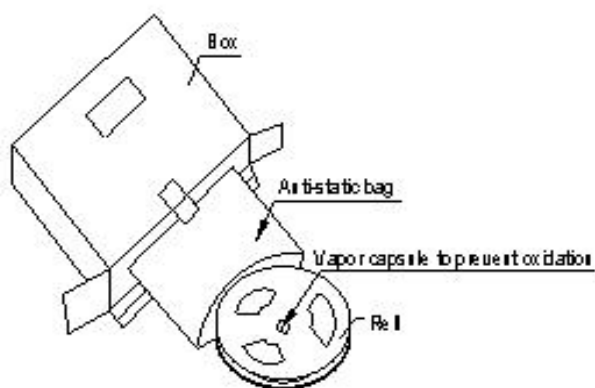
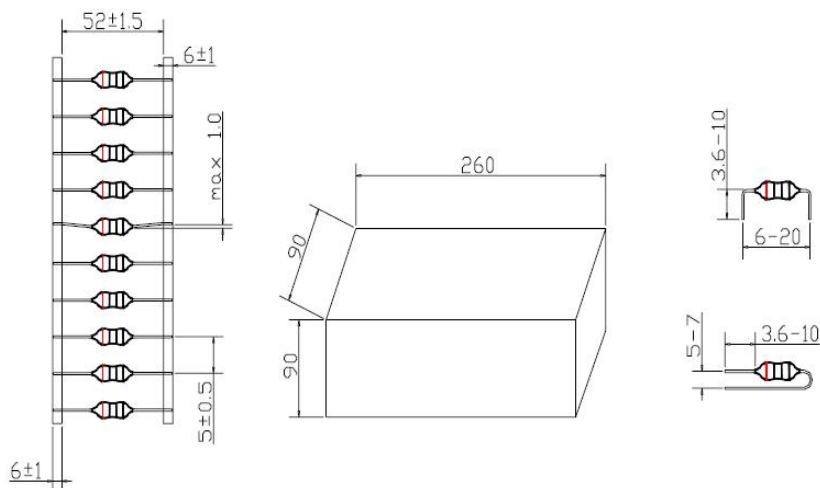
REMARK:

# SPECIFICATION

RoHS  
COMPLIANT

Customers Part Number	Item Name	Date	
	SMD Inductor	2020/6/11	
Gan Tong Part NO.	Sample NO.	Revision No.	A0
AL0307-100K-PF	S20061106	Page	3-4

## PACKAGING



### Storage

1. Temperature and humidity conditions: Less than 40°C and 70% RH.
2. Recommended products should be used within 6 months from the time of delivery.
3. The packaging material should be kept where no chlorine or sulfur exists in the air.

### Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

# SPECIFICATION

RoHS  
COMPLIANT

Customers Part Number	Item Name	Date	
	SMD Inductor	2020/6/11	
Gan Tong Part NO.	Sample NO.	Revision No.	A0
AL0307-100K-PF	S20061106	Page	4-4

## SOLDRING CONDITIONS

Figure 1. Re-flow Soldering

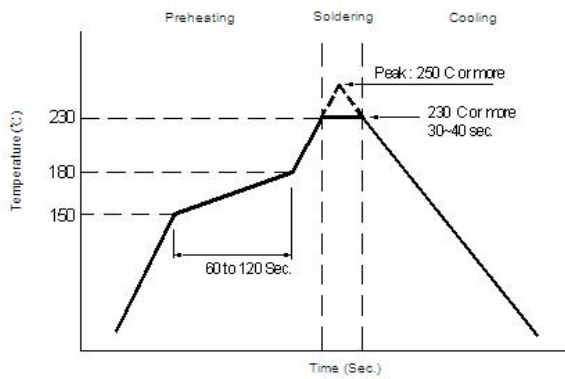
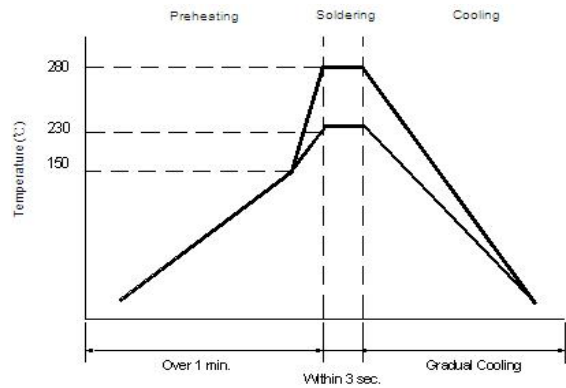


Figure 2. Hand Soldering



## Reliability and Testing Conditions/Surface Mount Type Power Inductors

Item	Specification	Conditions															
Solderability	More than 90% of the terminal electrode should be covered with solder.																
Solder Heat Resistance	Inductance within ±20% of initial value and appearance shall not break.																
Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 500±12 hours in 145±5°C and 2 hour drying under normal condition.															
Cold resistance	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 500±12 hours in -40±2°C and 2 hour drying under normal condition.															
Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 10 cycles of following condition. <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Times (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±2</td> <td>30</td> </tr> <tr> <td>2</td> <td>Room Temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td>145±5</td> <td>30</td> </tr> <tr> <td>4</td> <td>Room Temperature</td> <td>Within 3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Times (min.)	1	-40±2	30	2	Room Temperature	Within 3	3	145±5	30	4	Room Temperature	Within 3
Step	Temperature (°C)	Times (min.)															
1	-40±2	30															
2	Room Temperature	Within 3															
3	145±5	30															
4	Room Temperature	Within 3															
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 500±12 hours in 40±2°C and 90 to 95% humidity, and 2 hour drying under normal condition.															
* Vibration Test	Inductance within ±20% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P Amplitudes.															