CUSTOMER _____

CUSTOMER'S P/N _____

DESCRIPTION POWER INDUCTOR

SGTE PART NO. GPDB1312-100M01

SAMPLE NO. S11010301 REVISION NO. B DATE 03-Jan-11

SPECIFICATION FOR APPROVAL

FULLY APPROVED	REVISE APPROVED

SGTE 感通科技

深圳感通科技有限公司（大陸工廠）

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納美科技股份有限公司（香港辦事處）

LAPEE TECHNOLOGY LIMITED

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Room 1713 17/F, Rise Commercial Bldg5-11 Granville Cri cuit, Granville Rd, TSim Sha Tsui., Kln

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SPECIFICATION

RoHS COMPLIANT

INDEX

COVER PAGE

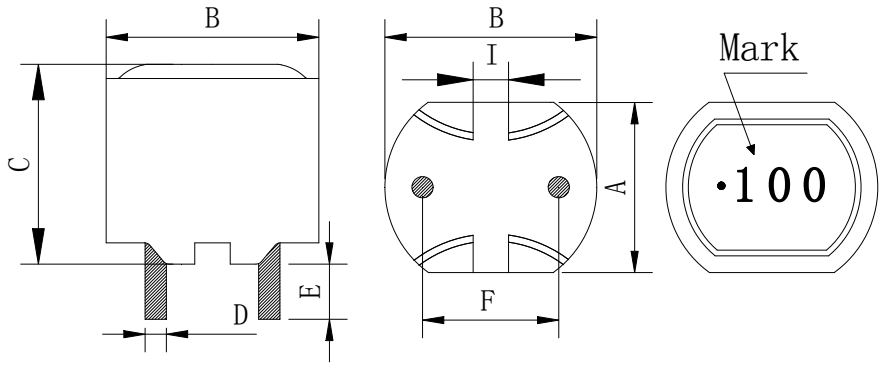
APPROVED BY	CHECKED BY	DRAWING BY
Jesse 1/03	Tony 1/03	Lily 1/03

SPECIFICATION

RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	03-Jan-11
Gan Tong Part NO.	Sample NO.	Page
GPDB1312-100M01	S11010301	1-8

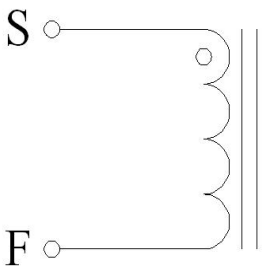
External Dimensions Unit (mm)



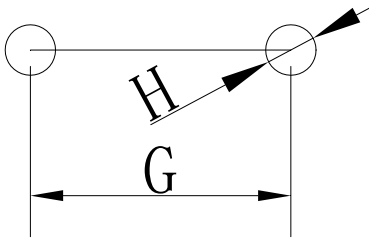
A	12.5± 0.5 (mm)
B	13.5± 0.5 (mm)
C	9.0± 1.0 (mm)
D	0.85± 0.1 (mm)
E	3.4± 0.5 (mm)
F	7.5± 0.5 (mm)
G	7.5± 0.5(mm)
H	1.05 (ref)
I	2.5 (ref)

Coating:Black

Connection



Recommended Land Pattern



Electrical Specification

Measurement Item	Unit Tolerance	Specification	Test Frequency	Test Instrument
L	uH (±20%)	10uH ±20%	100KHz/1V	LCR Meter Agilent/4284A or Chroma /11300
DCR	mΩ	15mΩ(Max)		Chroma /16502
I rms	Amps	10A	100KHz/1V	LCR Meter Agilent/4284A+42841A
I sat	Amps	13A	100KHz/1V	or Chroma /11300+3302+1320+1320S

- I rms: Current that causes a 40℃ temperature rise from 25℃ ambient.
- I sat: DC current at which the inductance drops 35% from it's value without current.
- All test Data is referenced to 25℃ ambient.
- Operating Temperature Range: -25℃ to +125℃

TEST REPORT

RoHS COMPLIANT

Customers Part Number	Item Name	Date	
	Power Inductor	03-Jan-11	
Gan Tong Part NO.	Sample NO.	Revision No.	Page
GPDB1312-100M01	S11010301	B	2-8

Electrical Characteristic

Item	L0A	DCR	I rms	I sat
Specification	10uH	15mΩ	10Amps	13Amps
Tolerance	±20%	Max	△T≦40℃	L≧65%
1	11.35	11.66	18.8℃	84.7%
2	11.29	11.68		
3	11.10	11.80		
4	11.46	11.72		
5	11.57	11.75		
6	11.82	11.60		
7	11.62	11.68		
8	11.58	11.66		
9	11.49	11.71		
10	11.38	11.69		
$\bar{X}$	11.47	11.70		
σ	0.19	0.05		

External Dimensions

Item	A	B	C	D	E	F
Specification	12.5	13.5	9.0	0.85	3.4	7.5
Tolerance	± 0.5 (mm)	± 0.5 (mm)	± 1.0 (mm)	± 0.1 (mm)	± 0.5 (mm)	± 0.5 (mm)
1	12.68	13.63	9.11	0.85	3.57	7.58
2	12.73	13.67	9.10	0.88	3.55	7.65
3	12.69	13.70	8.97	0.87	3.33	7.83
4	12.68	13.58	9.05	0.83	3.65	7.49
5	12.65	13.49	8.99	0.89	3.60	7.56
6	12.75	13.52	9.06	0.90	3.48	7.63
7	12.70	13.61	9.02	0.82	3.45	7.60
8	12.73	13.60	8.95	0.85	3.51	7.59
9	12.68	13.54	9.01	0.84	3.53	7.57
10	12.71	13.63	9.13	0.86	3.52	7.62
$\bar{X}$	12.70	13.60	9.04	0.86	3.52	7.61
σ	0.03	0.06	0.06	0.02	0.08	0.08

Inductance measured at 100KHz/1Vrms.

Electrical specifications at 25℃. Humidity 60±10%

ELECTRICAL CHARACTERISTICS

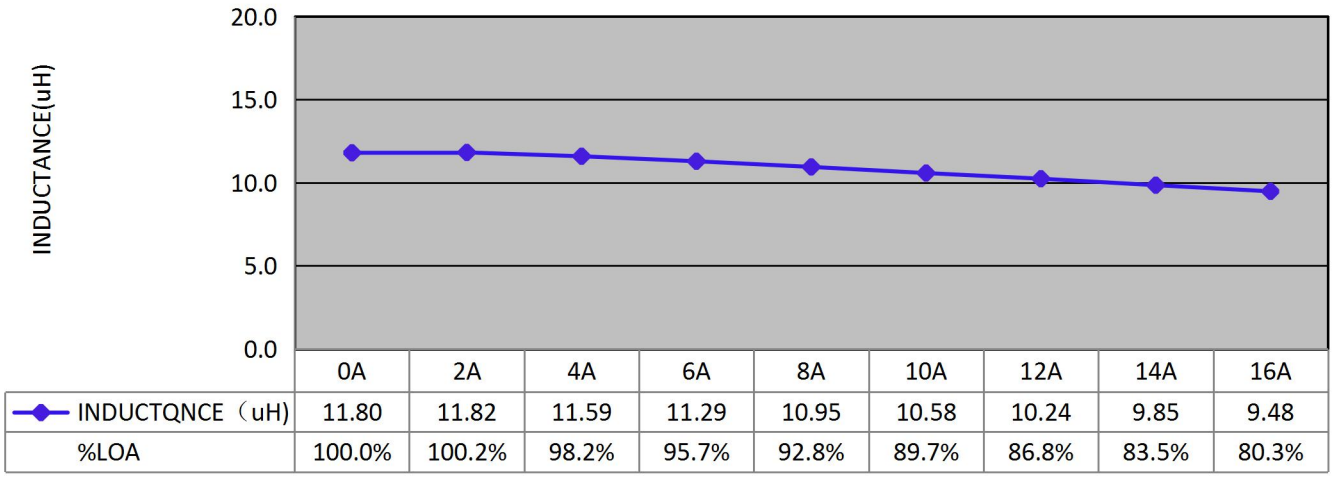
RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	03-Jan-11
Gan Tong Part NO.	Sample NO.	Page
GPDB1312-100M01	S11010301	3-8

Inductance VS DC current

IDC	L	%LOA				
0A	11.80	100.0%				
2A	11.82	100.2%				
4A	11.59	98.2%				
6A	11.29	95.7%				
8A	10.95	92.8%				
10A	10.58	89.7%				
12A	10.24	86.8%				
14A	9.85	83.5%				
16A	9.48	80.3%				

CONDITTON:100KHZ/1.0Vrms



DC BIAS(Amps)

ELECTRICAL CHARACTERISTICS

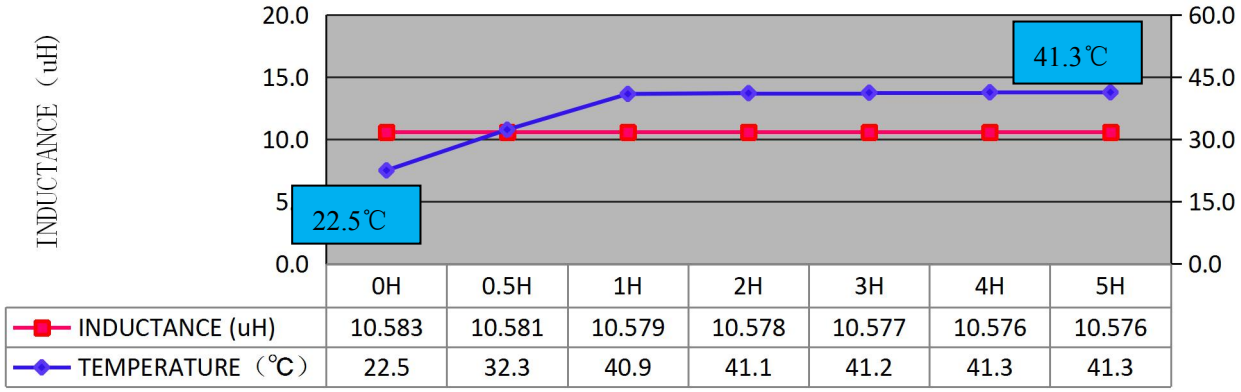
RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	03-Jan-11
Gan Tong Part NO.	Sample NO.	Page
GPDB1312-100M01	S11010301	4-8

DC current VS Temperature

Time	L（μH）	T（℃）	△T(℃)			
0h	10.583	22.5				
0.5h	10.581	32.3	9.8			
1h	10.579	40.9	18.4			
2h	10.578	41.1	18.6			
3h	10.577	41.2	18.7			
4h	10.576	41.3	18.8			
5h	10.576	41.3	18.8			

CONDITTON: Load 10A



Inductance VS Temperature

ELECTRICAL CHARACTERISTICS

RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	03-Jan-11
Gan Tong Part NO.	Sample NO.	Page
GPDB1312-100M01	S11010301	5-8

Inductance VS Frequency

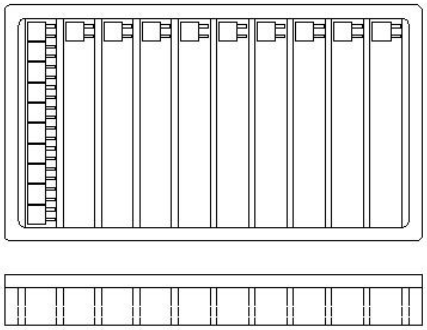
FREQ.	L（μH）					
1KHZ	12.01					
10KHZ	12.00					
100KHZ	11.80					
500KHZ	11.72					
800KHZ	11.75					
1000KHZ	11.79					

FREQ. (KHz)

PACKING FOR SPECIFICATION

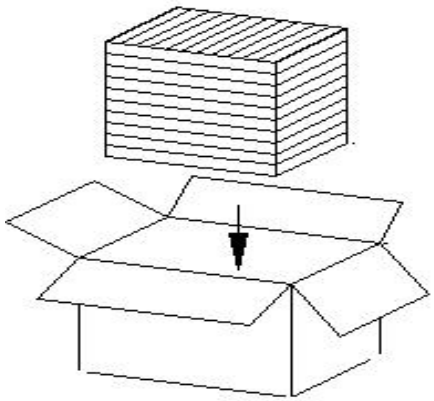
RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	03-Jan-11
Gan Tong Part NO.	Sample NO.	Page
GPDB1312-100M01	S11010301	6-8

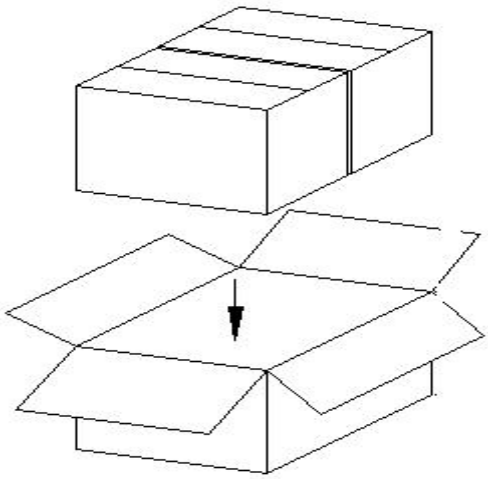


PET Size : 215*148 *16（C）mm

Quantity : 80PCS/PET

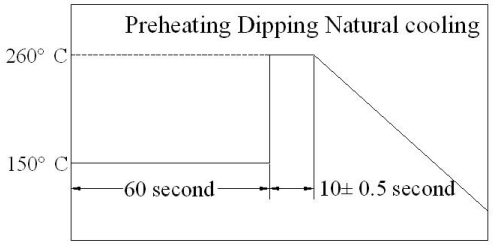
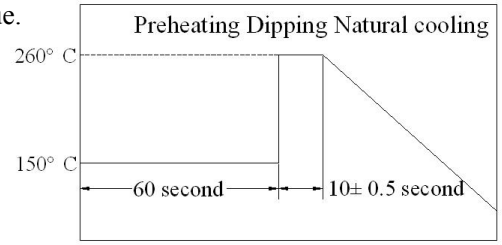
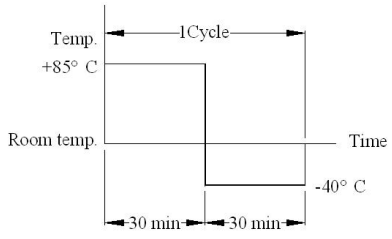


Small box Size : 238*156*165 mm
Quantity : 10PET/Small box
1Small box/800PCS



Big box Size : 328*251*175 mm
Quantity : 2 Small box/Big box
1 Big box/1600PCS

GENERAL CHARACTERISTICS

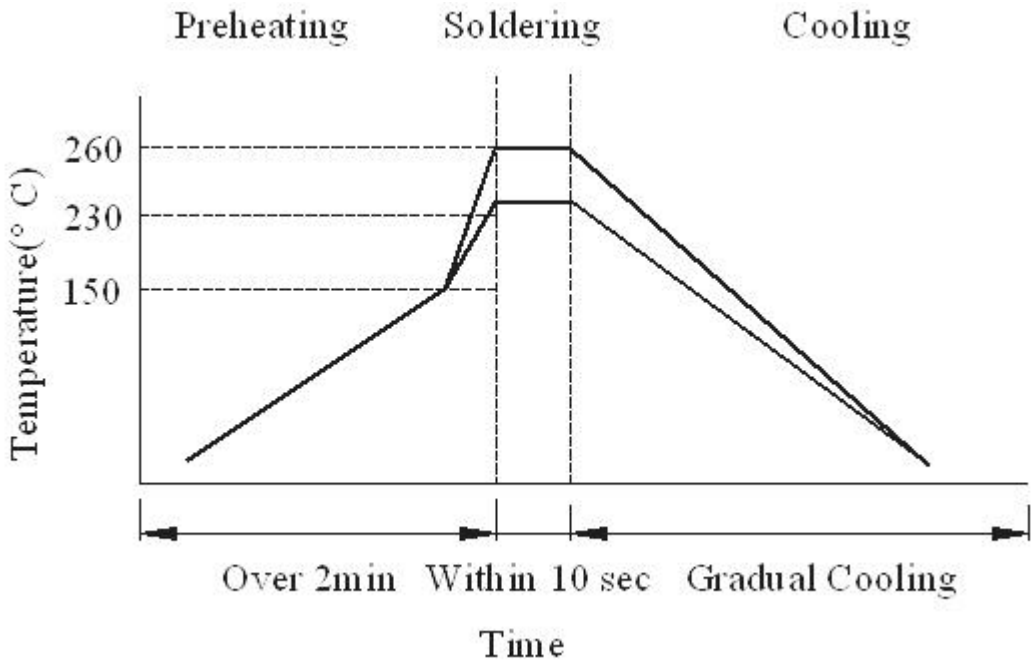
Gan Tong Part NO.: GPDB1312-100M01		PAGE : 7-8
Item	**Performance**	**Test Condition**
Mechanical Performance Test		
Solder ability Test	More than 90% of terminal electrode should be covered with solder. After fluxing, component shall be dipped in a melted solder bath at 260±5℃ for 10 seconds 	
Solder Heat Resistance	Components should have not evidence of electrical and mechanical damage. Inductance: within±20% of initial value. Preheat：150℃ 60 seconds Solder：(SnCu0.7) Solder Temperature：260±5℃ Flux： Rosin. Dip time：10±0.5 seconds 	
Low temperature storage test	1. Appearance: No damage. 2. Inductance: within±20% of initial value. 3.No disconnection or short circuit.	Temperature:- 40℃±5℃ Time: 500±12 Hours Recovery: 4to24hrs of recovery under the standard condition after the removal from test chamber.
High temperature storage test		Temperature: 85℃±5℃ Time: 500±2 Hours Recovery: 4to24hrs of recovery under the standard condition after the removal from test chamber.
Thermal Shock Test (Temperature cycle)		-40±5℃ for 30 Minutes. +85±5℃ for 30 Minutes. Total: 10 Cycles 
Humidity load life test		Temperature: 40±5℃ Humidity.: 90-95% Time: 500±12 Hours Load: Allowed DC current Recovery: 4to24hrs of recovery under the standard condition after the removal from test chamber.

THE CONDITION OF REFLOW

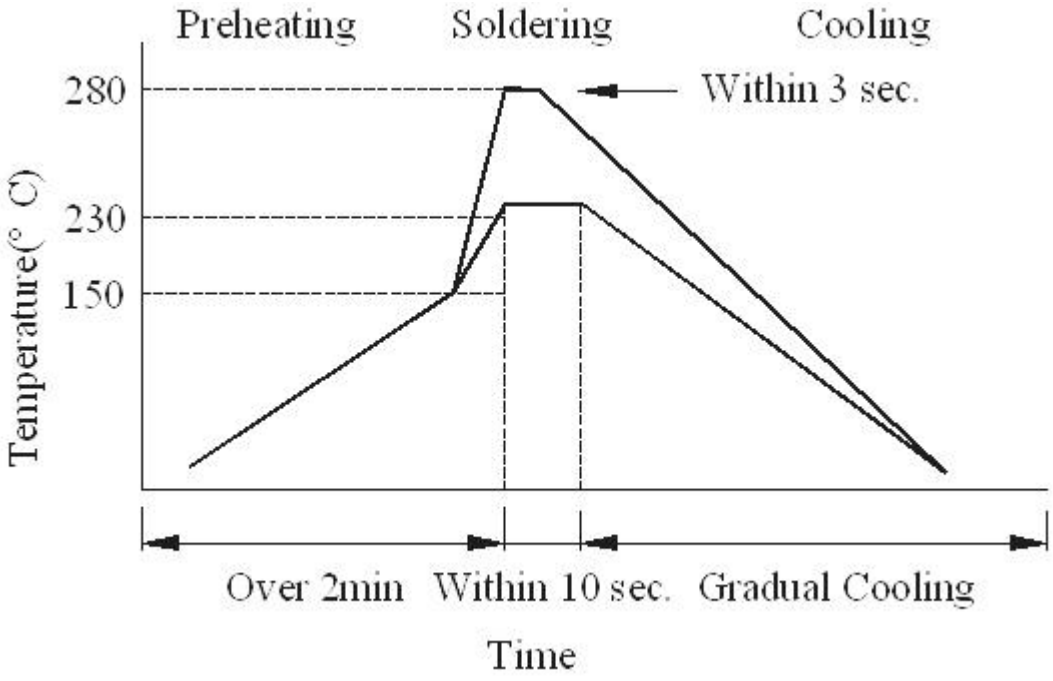
RoHS COMPLIANT

Gan Tong Part NO. : GPDB1312-100M01	PAGE : 8-8

Wave Soldering



Hand soldering



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