CUSTOMER _____

CUSTOMER'S P/N _____

DESCRIPTION POWER INDUCTOR

SGTE PART NO. GPDC1111-100M01

SAMPLE NO. S11030801 REVISION NO. A DATE 08-Mar-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

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

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SPECIFICATION

RoHS COMPLIANT

INDEX

COVER PAGE

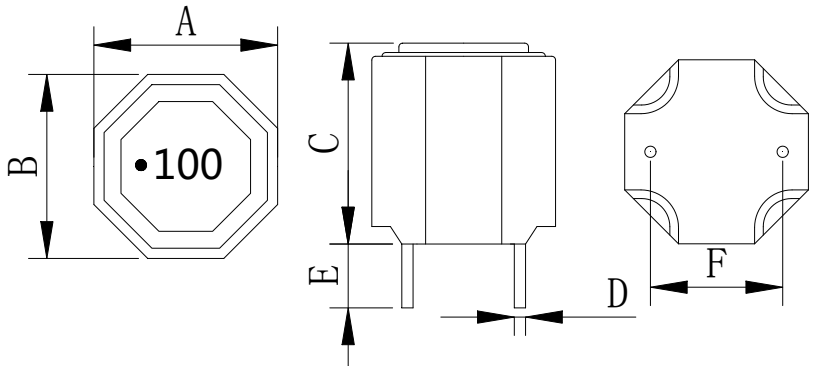
APPROVED BY	CHECKED BY	DRAWING BY
Jesse 3/8	Tony 3/8	Lily 3/8

SPECIFICATION

RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	08-Mar-11
Gan Tong Part NO.	Sample NO.	Page
GPDC1111-100M01	S11030801	1-8

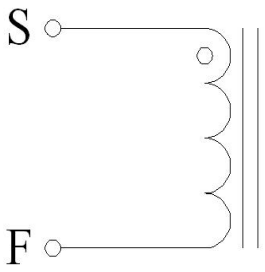
External Dimensions Unit (mm)



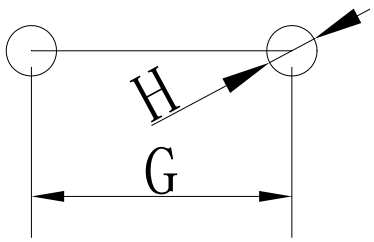
A	11.0± 0.5 (mm)
B	11.0± 0.5 (mm)
C	11.0Max (mm)
D	0.8± 0.1 (mm)
E	3.4± 0.5 (mm)
F	5.0± 0.5 (mm)
G	5.0± 0.5(mm)
H	1.0 (ref)

Coating:Black

Connection



Recommended Land Pattern



Electrical Specification

Measurement Item	Unit Tolerance	Specification	Test Frequency	Test Instrument
L	uH (±20%)	10.0uH ±20%	200KHz/0.25V	LCR Meter Agilent/4284A or Chroma /11300
DCR	mΩ	20mΩ(Max)		Chroma /16502
I rms	Amps	10A	200KHz/0.25V	LCR Meter Agilent/4284A+42841A
I sat	Amps	12A	200KHz/0.25V	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	08-Mar-11	
Gan Tong Part NO.	Sample NO.	Revision No.	Page
GPDC1111-100M01	S11030801	A	2-8

Electrical Characteristic

Item	L0A	DCR	I rms	I sat
Specification	10.0uH	20mΩ	10Amps	12Amps
Tolerance	±20%	Max	△T≦40℃	L≧65%
1	10.61	12.06	22.9℃	79.8%
2	10.41	11.83		
3	10.53	11.78		
4	10.77	11.66		
5	10.65	11.79		
6	10.56	12.01		
7	10.75	12.03		
8	10.64	11.72		
9	10.67	11.80		
10	10.53	11.77		
$\bar{X}$	10.61	11.85		
σ	0.10	0.13		

External Dimensions

Item	A	B	C	D	E	F
Specification	11.0	11.0	11.0	0.8	3.4	5.0
Tolerance	± 0.5 (mm)	± 0.5 (mm)	Max (mm)	± 0.1 (mm)	± 0.5 (mm)	± 0.5 (mm)
1	11.10	11.09	9.77	0.83	3.52	5.11
2	11.05	11.07	9.71	0.80	3.57	5.06
3	11.09	11.08	9.78	0.81	3.49	5.15
4	11.11	11.10	9.63	0.78	3.50	5.13
5	11.09	11.11	9.76	0.80	3.53	5.16
6	11.10	11.12	9.57	0.79	3.56	5.12
7	11.07	11.08	9.61	0.81	3.48	5.09
8	11.12	11.10	9.56	0.77	3.60	5.14
9	11.08	11.09	9.65	0.79	3.45	5.12
10	11.10	11.09	9.69	0.81	3.47	5.15
$\bar{X}$	11.09	11.09	9.67	0.80	3.52	5.12
σ	0.02	0.01	0.08	0.02	0.05	0.03

Inductance measured at 200KHz/0.25Vrms.

Electrical specifications at 25℃. Humidity 60±10%

ELECTRICAL CHARACTERISTICS

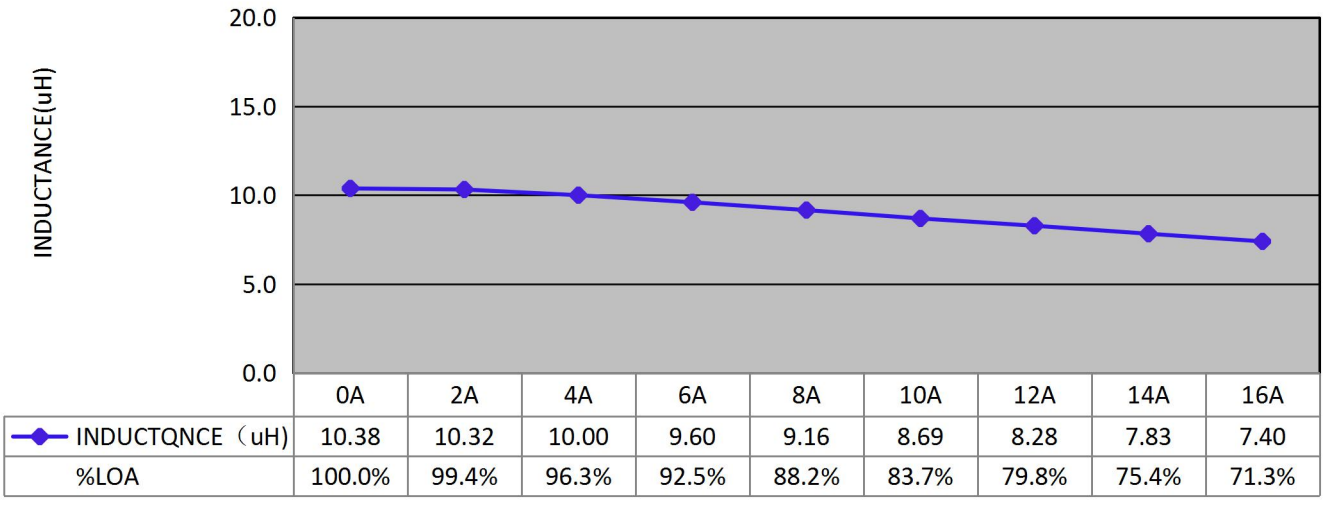
RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	08-Mar-11
Gan Tong Part NO.	Sample NO.	Page
GPDC1111-100M01	S11030801	3-8

Inductance VS DC current

IDC	L	%LOA				
0A	10.38	100.0%				
2A	10.32	99.4%				
4A	10.00	96.3%				
6A	9.60	92.5%				
8A	9.16	88.2%				
10A	8.69	83.7%				
12A	8.28	79.8%				
14A	7.83	75.4%				
16A	7.40	71.3%				

CONDITTON:200KHZ/0.25Vrms



	0A	2A	4A	6A	8A	10A	12A	14A	16A
INDUCTQNCE（uH)	10.38	10.32	10.00	9.60	9.16	8.69	8.28	7.83	7.40
%LOA	100.0%	99.4%	96.3%	92.5%	88.2%	83.7%	79.8%	75.4%	71.3%

DC BIAS(Amps)

ELECTRICAL CHARACTERISTICS

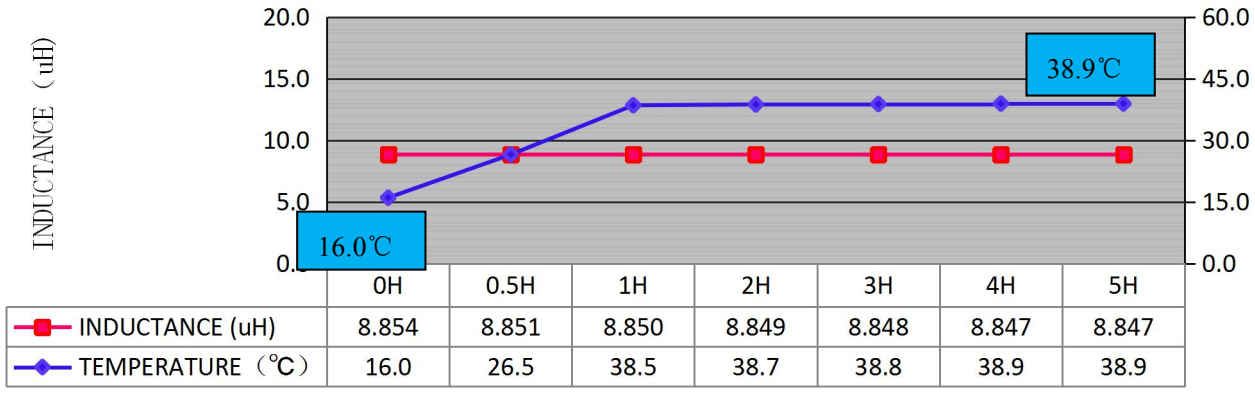
RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	08-Mar-11
Gan Tong Part NO.	Sample NO.	Page
GPDC1111-100M01	S11030801	4-8

DC current VS Temperature

Time	L（μH）	T（℃）	△T(℃)			
0h	8.854	16.0				
0.5h	8.851	26.5	10.5			
1h	8.850	38.5	22.5			
2h	8.849	38.7	22.7			
3h	8.848	38.8	22.8			
4h	8.847	38.9	22.9			
5h	8.847	38.9	22.9			

CONDITTON: Load 10A



Inductance VS Temperature

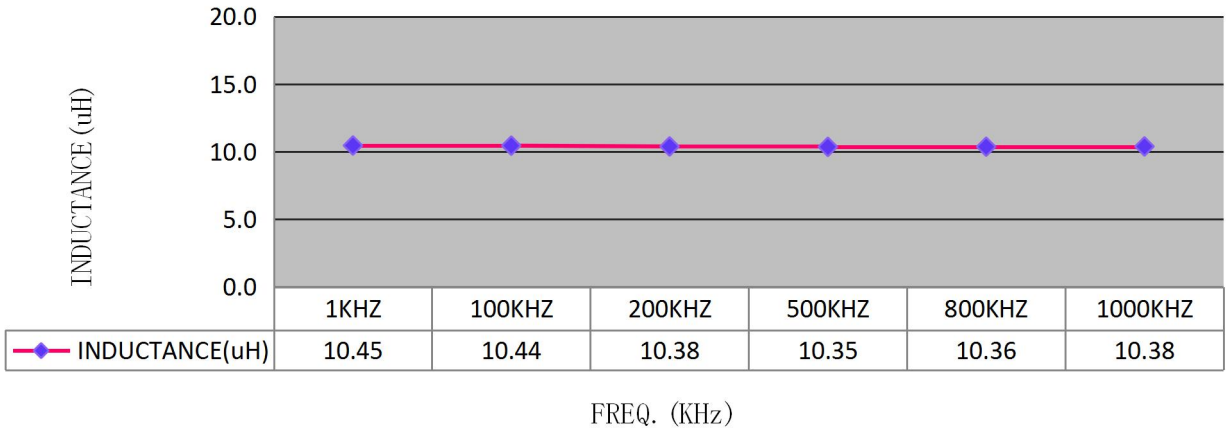
ELECTRICAL CHARACTERISTICS

RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	08-Mar-11
Gan Tong Part NO.	Sample NO.	Page
GPDC1111-100M01	S11030801	5-8

Inductance VS Frequency

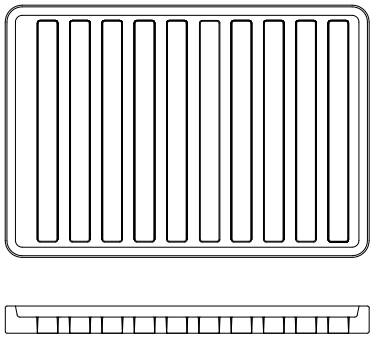
FREQ.	L（μH）					
1KHZ	10.45					
100KHZ	10.44					
200KHZ	10.38					
500KHZ	10.35					
800KHZ	10.36					
1000KHZ	10.38					



PACKING FOR SPECIFICATION

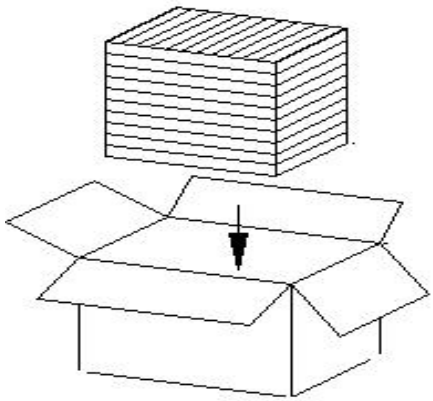
RoHS COMPLIANT

Customers Part Number	Item Name	Date
	Power Inductor	08-Mar-11
Gan Tong Part NO.	Sample NO.	Page
GPDC1111-100M01	S11030801	6-8

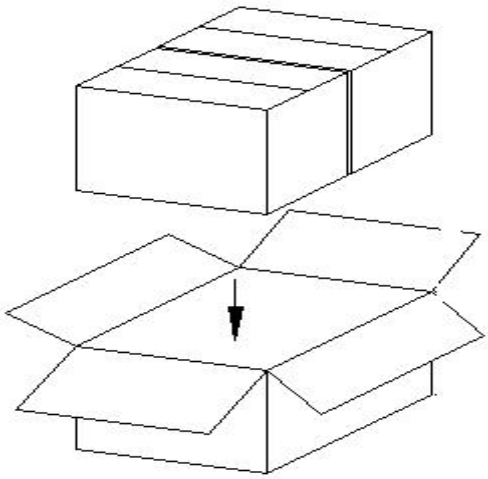


PET Size : 215*148 *16（C）mm

Quantity : 100PCS/PET



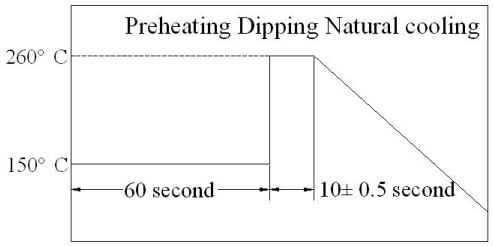
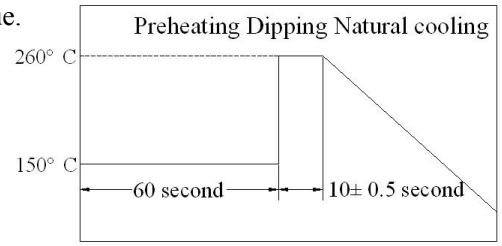
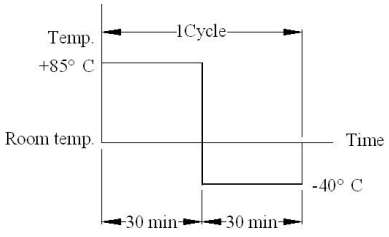
Small box Size : 238*156*165 mm
Quantity : 10PET/Small box
1Small box/1000PCS



Big box Size : 328*251*175 mm
Quantity : 2 Small box/Big box
1 Big box/2000PCS

GENERAL CHARACTERISTICS

Gan Tong Part NO.: GPDC1111-100M01	PAGE : 7-8

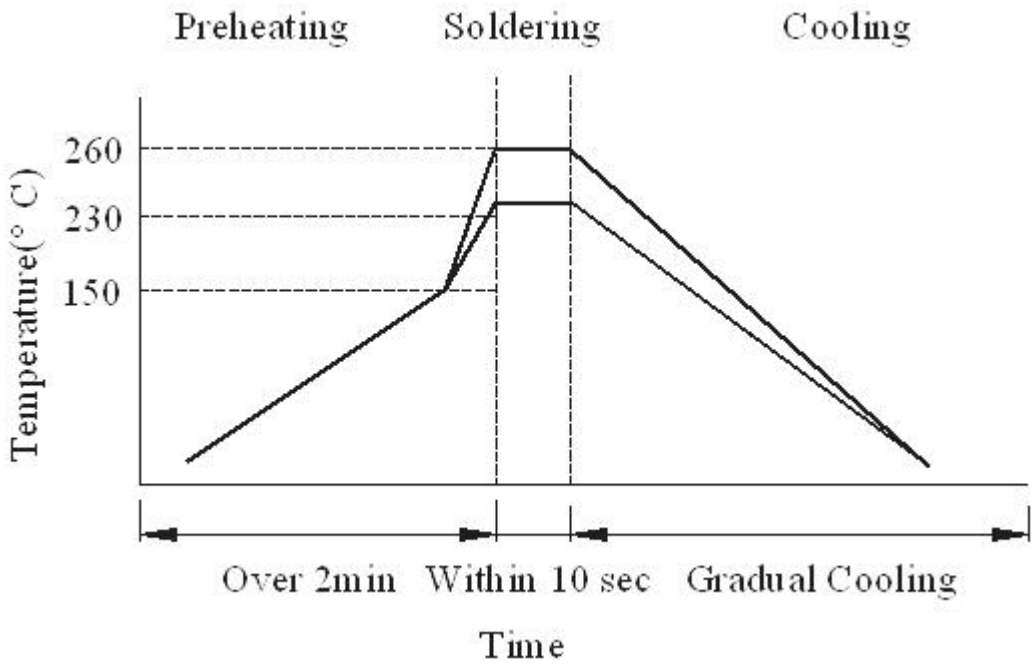
Item	Performance	Test Condition
Mechanical Performance Test		
Solder ability Test	More than 90% of terminal electrode should be covered with solder. After fluxing, component shall be dipped in a melted solder bath at 260±5℃ for 10 seconds 	
Solder Heat Resistance	Components should have not evidence of 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. : GPDC1111-100M01	PAGE : 8-8

Wave Soldering



Hand soldering