CUSTOMER _____

CUSTOMER'S P/N _____

DESCRIPTION POWER INDUCTOR

SGTE PART NO. GPDC1111-220M02

SAMPLE NO.: S10072303 REVISION NO. A DATE 23-July-10

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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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

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APPROVED BY	CHECKED BY	DRAWING BY
Jesse 7/23	Tony 7/23	Lily 7/23

SPECIFICATION

RoHS COMPLIANT

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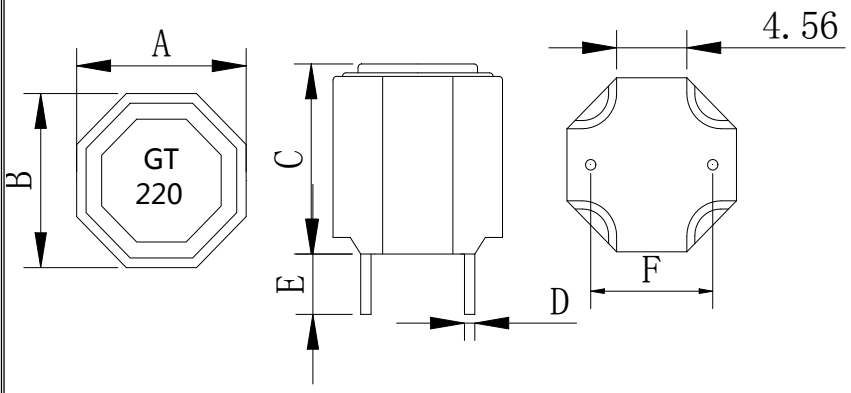
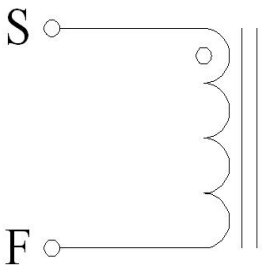
External Dimensions Unit (mm)



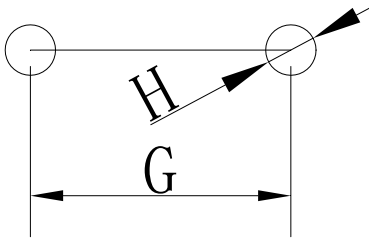
A	11.0± 0.5 (mm)
B	11.0± 0.5 (mm)
C	14.0Max (mm)
D	0.8± 0.1 (mm)
E	3.4± 0.5 (mm)
F	6.0± 0.5 (mm)
G	6.0± 0.5(mm)
H	1.2 (ref)

Coating:Black

Connection



Recommended Land Pattern



Electrical Specification

Measurement Item	Unit Tolerance	Specification	Test Frequency	Test Instrument
L	uH (±20%)	22.0uH ±20%	100KHz/1V	LCR Meter Agilent/4284A or Chroma /11300
DCR	mΩ	27.8mΩ(Max)		Chroma /16502
I rms	Amps	8A	100KHz/1V	LCR Meter Agilent/4284A+42841A
I sat	Amps	11A	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 20% from it's value without current.
- All test Data is referenced to 25℃ ambient.
- Operating Temperature Range: -25℃ to +125℃

TEST REPORT

RoHS COMPLIANT

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Electrical Characteristic

Item	L0A	DCR	I rms	I sat
Specification	22.0uH	27.8mΩ	8Amps	11Amps
Tolerance	±20%	Max	△T≦40℃	L≧80%
1	21.63	21.36	31.3℃	74.6%
2	21.22	21.49		
3	21.99	21.44		
4	21.88	21.55		
5	21.63	21.50		
6	21.57	21.41		
7	21.20	21.28		
8	21.03	21.31		
9	22.12	21.42		
10	21.95	21.47		
$\bar{X}$	21.62	21.42		
σ	0.35	0.08		

External Dimensions

Item	A	B	C	D	E	F
Specification	11.0	11.0	14.0	0.8	3.4	6.0
Tolerance	± 0.5 (mm)	± 0.5 (mm)	Max (mm)	± 0.1 (mm)	± 0.5 (mm)	± 0.5 (mm)
1	11.09	11.13	12.75	0.84	3.39	6.05
2	11.10	11.11	12.73	0.77	3.45	6.13
3	11.11	11.09	12.75	0.77	3.41	6.04
4	11.11	11.08	12.66	0.78	3.53	6.06
5	11.09	11.08	12.78	0.79	3.61	6.08
6	11.11	11.12	12.74	0.80	3.59	6.11
7	11.17	11.14	12.83	0.78	3.67	6.09
8	11.12	11.13	12.75	0.79	3.48	6.05
9	11.12	11.09	12.77	0.80	3.60	6.13
10	11.12	11.09	12.68	0.81	3.54	6.10
$\bar{X}$	11.11	11.11	12.74	0.79	3.53	6.08
σ	0.02	0.02	0.05	0.02	0.09	0.03

Inductance measured at 100KHz/1Vrms.

Electrical specifications at 25±5℃. Humidity 60±10%

ELECTRICAL CHARACTERISTICS

RoHS COMPLIANT

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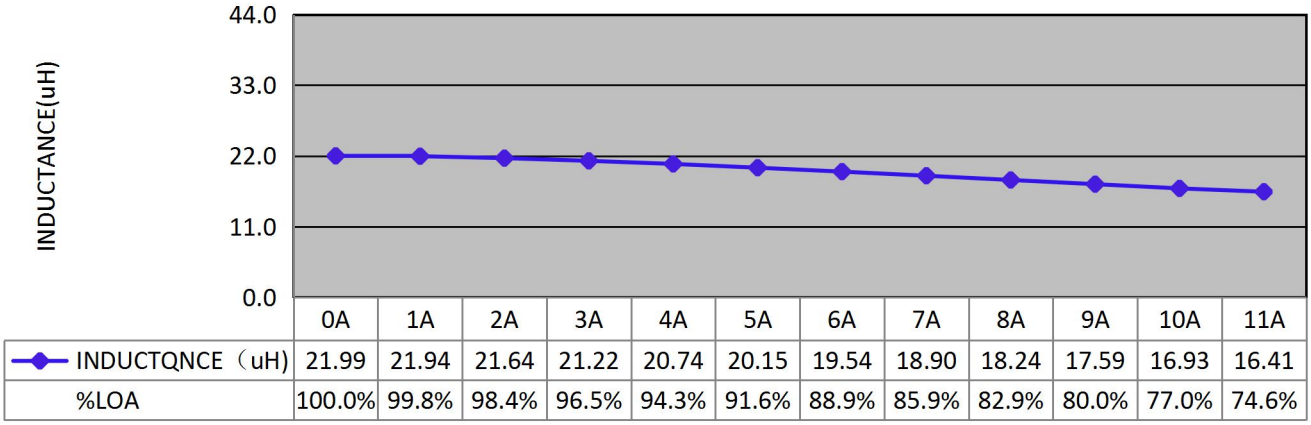
Inductance VS DC current

IDC	L	%LOA				
0A	21.99	100.0%				
1A	21.94	99.8%				
2A	21.64	98.4%				
3A	21.22	96.5%				
4A	20.74	94.3%				
5A	20.15	91.6%				
6A	19.54	88.9%				
7A	18.90	85.9%				
8A	18.24	82.9%				
9A	17.59	80.0%				
10A	16.93	77.0%				
11A	16.41	74.6%				

CONDITION:100KHZ/1.0Vrms AMBIENT: 20℃,69.8%



	0A	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A
INDUCTQNCE（uH)	21.99	21.94	21.64	21.22	20.74	20.15	19.54	18.90	18.24	17.59	16.93	16.41
%LOA	100.0%	99.8%	98.4%	96.5%	94.3%	91.6%	88.9%	85.9%	82.9%	80.0%	77.0%	74.6%

DC BIAS(Amps)

ELECTRICAL CHARACTERISTICS

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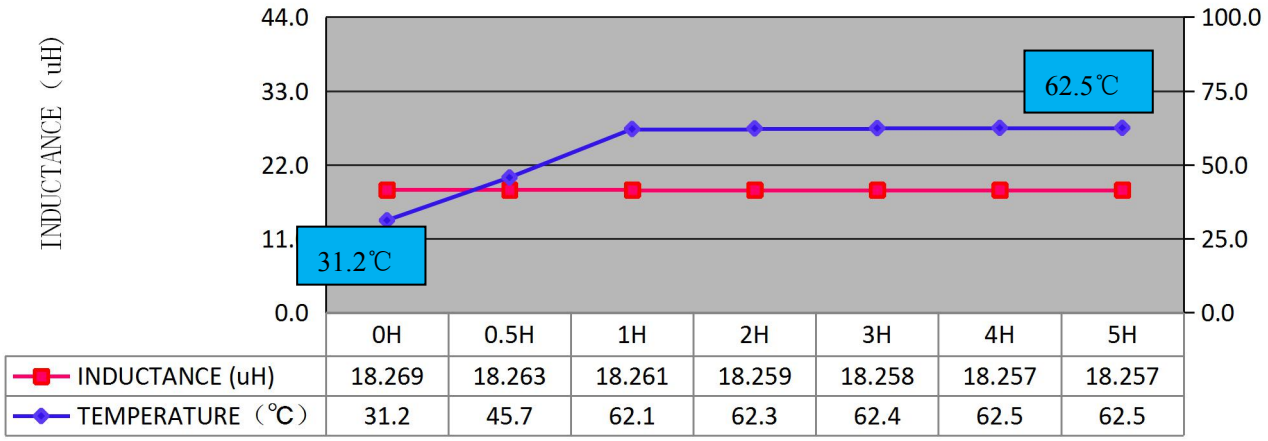
DC current VS Temperature

Time	L（μH）	T（℃）	△T(℃)			
0h	18.269	31.2				
0.5h	18.263	45.7	14.5			
1h	18.261	62.1	30.9			
2h	18.259	62.3	31.1			
3h	18.258	62.4	31.2			
4h	18.257	62.5	31.3			
5h	18.257	62.5	31.3			

CONDITION: Load 8A AMBIENT: 20℃,69.8%



Inductance VS Temperature

ELECTRICAL CHARACTERISTICS

RoHS COMPLIANT

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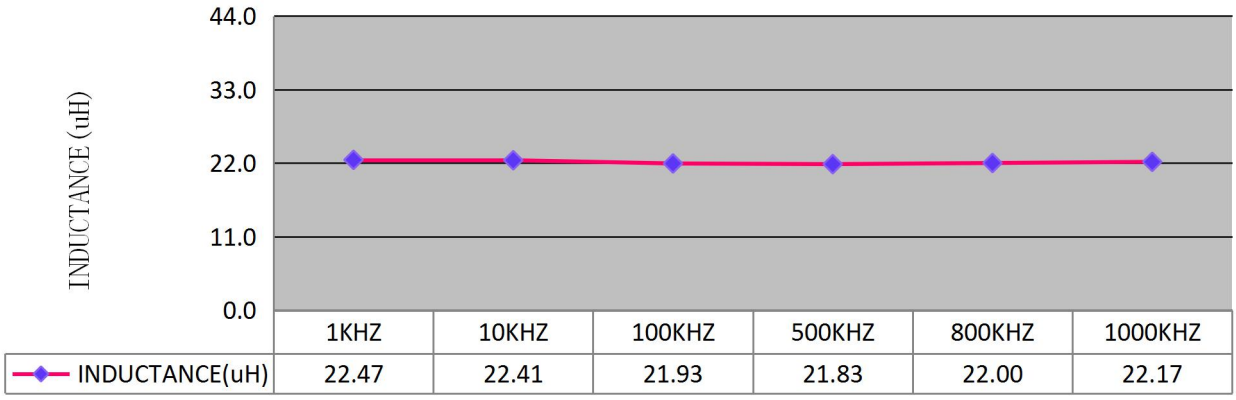
Inductance VS Frequency

FREQ.	L（μH）					
1KHZ	22.47					
10KHZ	22.41					
100KHZ	21.93					
500KHZ	21.83					
800KHZ	22.00					
1000KHZ	22.17					

AMBIENT: 20℃, 69.8%



FREQ. (KHz)

PACKING FOR SPECIFICATION

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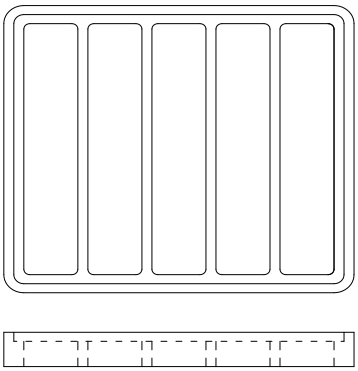
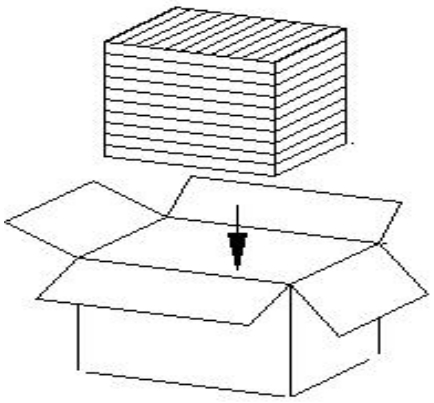
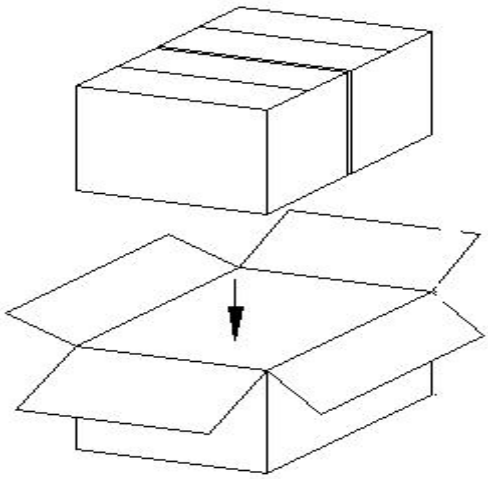


PET Size :175*159*19mm
Quantity : 60PCS/PET



Small box Size : 324*178*114 mm
Quantity : 10PET/Small box
1Small box/600PCS



Big box Size : 386*338*132 mm
Quantity : 2 Small box/Big box
1 Big box/1200PCS

GENERAL CHARACTERISTICS

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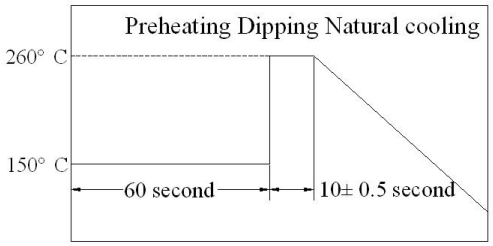
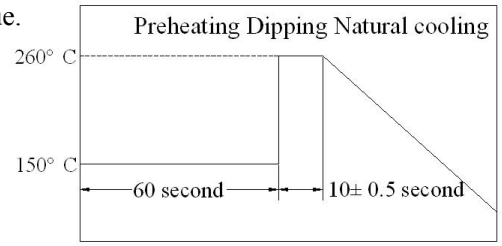
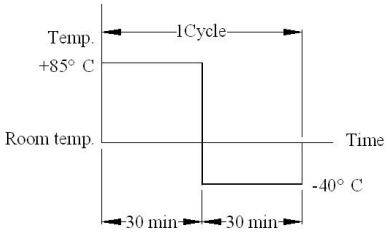
Item	**Performance**	**Test Condition**
Mechanical Performance Test		
Solder ability Test	More than 90% of terminal electrode should be covered with solder. After fluxing, component shall be dipped in a melted solder bath at 260±5℃ for 10 seconds 	
Solder Heat Resistance	Components should have not evidence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

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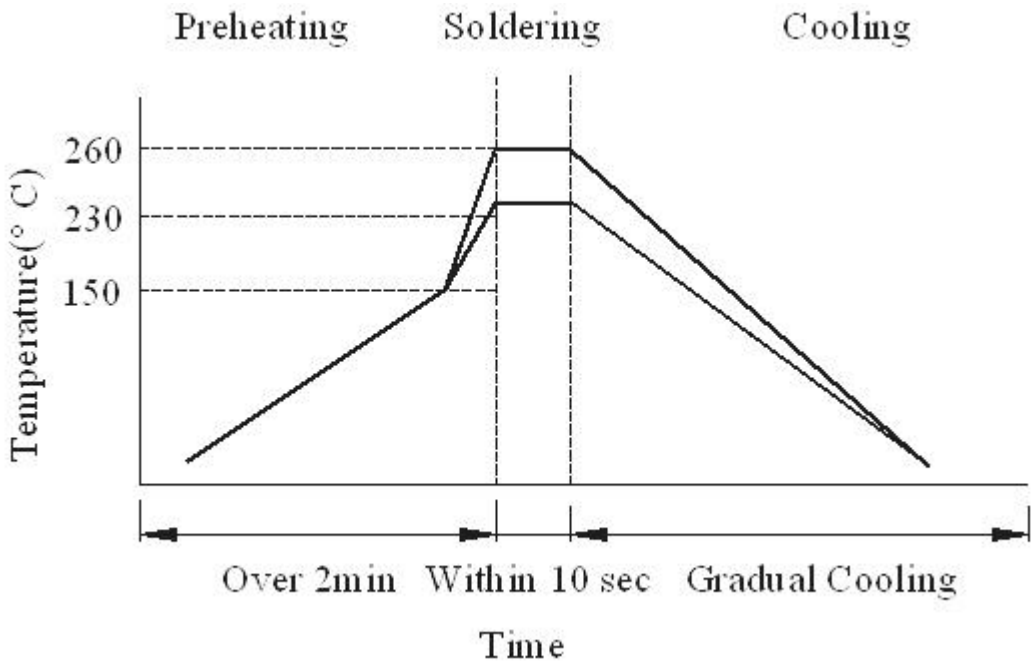
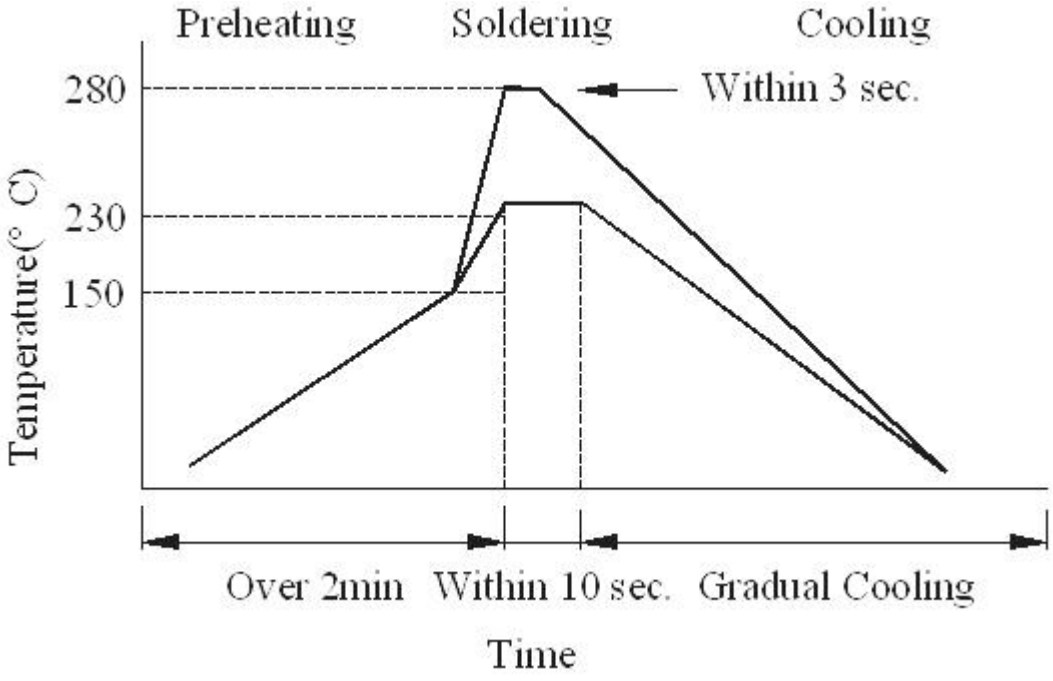
Wave Soldering



Hand soldering



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