CUSTOMER _____

CUSTOMER'S P/N _____

DESCRIPTION POWER INDUCTOR

SGTE PART NO. GPDC1010-220M01

SAMPLE NO.: S10042301 REVISION NO. A DATE 23-April-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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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 Bldg5-11 Granville Cri cuit, Granville Rd, TSim Sha Tsui., Kln

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SPECIFICATION

RoHS COMPLIANT

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APPROVED BY	CHECKED BY	DRAWING BY
Jesse 4/23	Gary 4/23	Lily 4/23

SPECIFICATION

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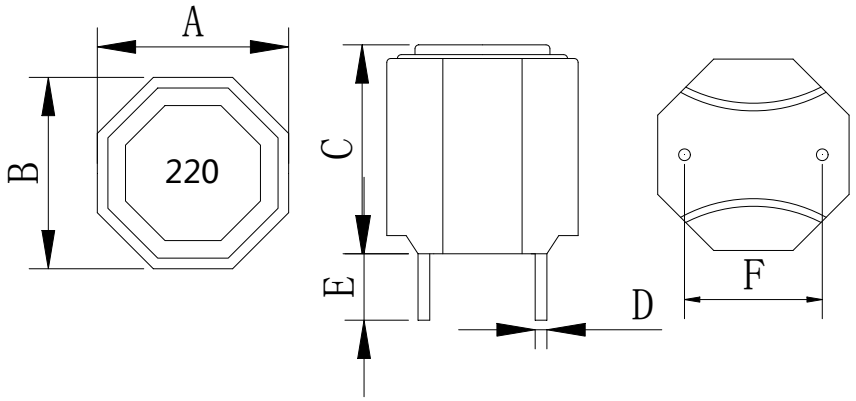
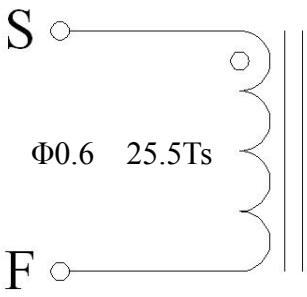
External Dimensions Unit (mm)



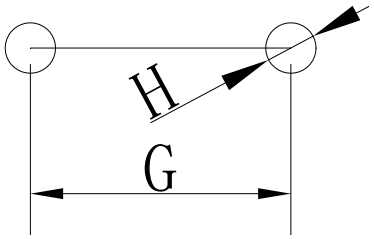
A	10.0± 0.5 (mm)
B	10.0± 0.5 (mm)
C	10.0Max (mm)
D	0.6± 0.1 (mm)
E	3.4± 0.5 (mm)
F	5.0± 0.5 (mm)
G	5.0± 0.5(mm)
H	1.0 (ref)

Coating:Black

Connection



Recommended Land Pattern



Electrical Specification

Measurement Item	Unit Tolerance	Specification	Test Frequency	Test Instrument
L	uH (±20%)	22.0uH ±20%	100KHz/0.1V	LCR Meter Agilent/4284A or Chroma /11300
DCR	mΩ	35mΩ (Max)		Chroma /16502
I rms	Amps	4A	100KHz/0.1V	LCR Meter Agilent/4284A+42841A
I sat	Amps	7A	100KHz/0.1V	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

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Electrical Characteristic

Item	L0A	DCR	I rms	I sat
Specification	22.0uH	35mΩ	4Amps	7Amps
Tolerance	±20%	Max	△T≦40℃	L≧65%
1	21.876	28.89	9.2℃	83.7%
2	20.396	28.90		
3	21.347	29.01		
4	20.958	29.07		
5	20.787	28.76		
6	21.862	28.79		
7	21.077	28.93		
8	21.619	28.97		
9	22.013	28.96		
10	22.125	29.03		
$\bar{X}$	21.406	28.93		
σ	0.55	0.09		

External Dimensions

Item	A	B	C	D	E	F
Specification	10.0	10.0	10.0	0.6	3.4	5.0
Tolerance	± 0.5 (mm)	± 0.5 (mm)	Max (mm)	± 0.1 (mm)	± 0.5 (mm)	± 0.5 (mm)
1	9.98	9.99	9.11	0.65	3.49	5.17
2	9.97	9.89	9.06	0.66	3.53	5.10
3	10.01	10.03	8.84	0.67	3.56	5.18
4	10.02	10.01	9.07	0.62	3.61	5.21
5	9.98	9.98	9.08	0.64	3.67	5.15
6	9.99	9.98	9.07	0.65	3.59	5.19
7	9.99	9.98	9.06	0.63	3.62	5.27
8	10.00	10.01	8.89	0.61	3.58	5.23
9	10.01	10.02	8.97	0.60	3.60	5.21
10	10.06	10.05	8.96	0.63	3.59	5.24
$\bar{X}$	10.00	9.99	9.01	0.64	3.58	5.20
σ	0.02	0.04	0.09	0.02	0.05	0.05

Inductance measured at 100KHz/0.1Vrms.

Electrical specifications at 25℃. Humidity 60±10%

ELECTRICAL CHARACTERISTICS

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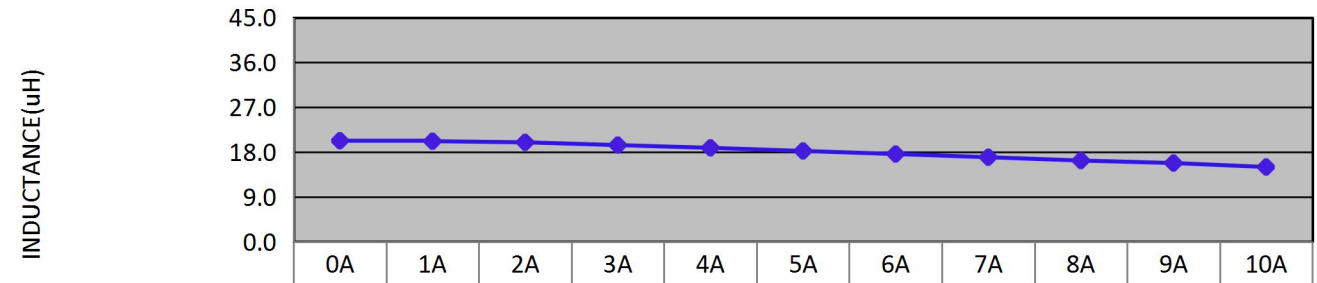
Inductance VS DC current

IDC	L	%LOA				
0A	20.275	100.0%				
1A	20.176	99.5%				
2A	19.953	98.4%				
3A	19.396	95.7%				
4A	18.846	93.0%				
5A	18.221	89.9%				
6A	17.603	86.8%				
7A	16.962	83.7%				
8A	16.298	80.4%				
9A	15.797	77.9%				
10A	14.998	74.0%				

CONDITTON:100KHZ/0.1Vrms



	0A	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A
INDUCTQNCE（uH)	20.275	20.176	19.953	19.396	18.846	18.221	17.603	16.962	16.298	15.797	14.998
%LOA	100.0%	99.5%	98.4%	95.7%	93.0%	89.9%	86.8%	83.7%	80.4%	77.9%	74.0%

DC BIAS(Amps)

ELECTRICAL CHARACTERISTICS

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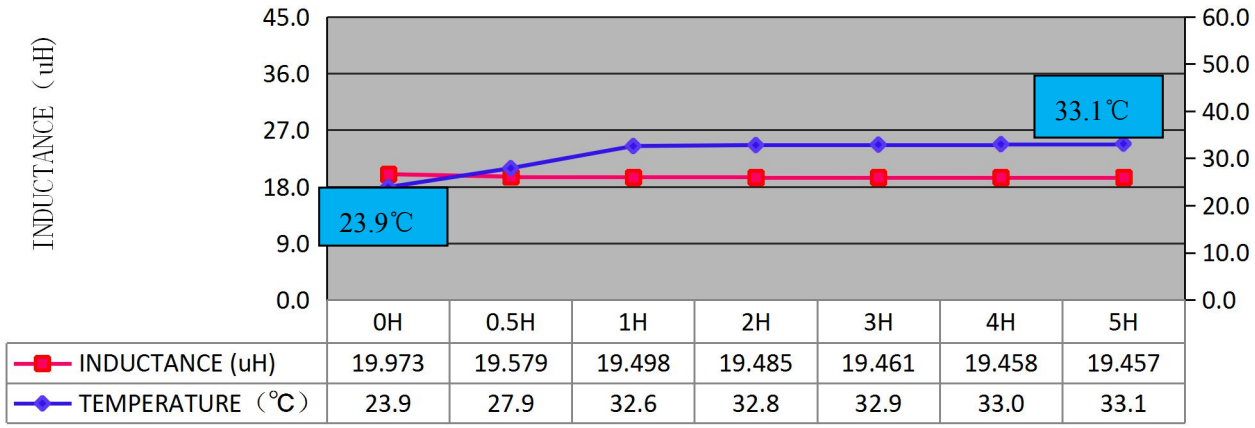
DC current VS Temperature

Time	L (μH)	T (℃)	△T(℃)			
0H	19.973	23.9				
0.5H	19.579	27.9	4.0			
1H	19.498	32.6	8.7			
2H	19.485	32.8	8.9			
3H	19.461	32.9	9.0			
4H	19.458	33.0	9.1			
5H	19.457	33.1	9.2			

CONDITTON: Load 4A



Inductance VS Temperature

ELECTRICAL CHARACTERISTICS

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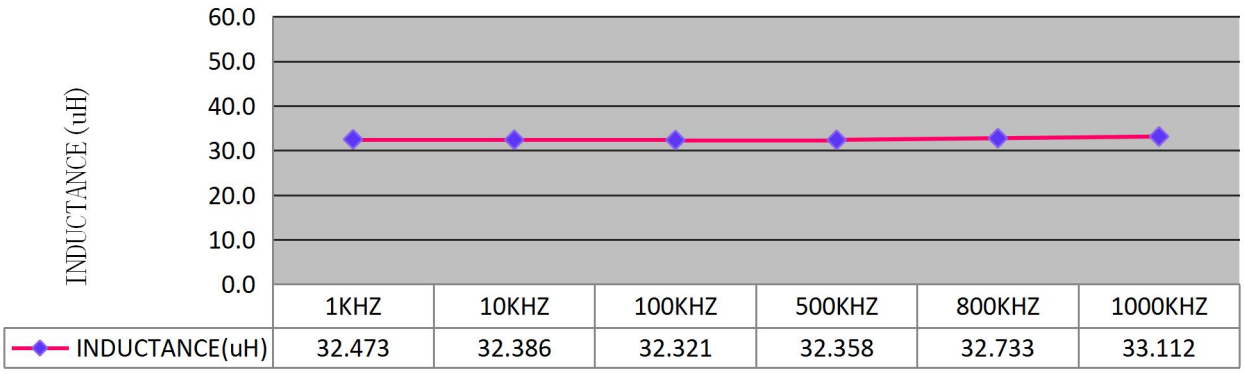
Inductance VS Frequency

FREQ.	L（μH）					
1KHZ	32.473					
10KHZ	32.386					
100KHZ	32.321					
500KHZ	32.358					
800KHZ	32.733					
1000KHZ	33.112					



FREQ. (KHz)

PACKING FOR SPECIFICATION

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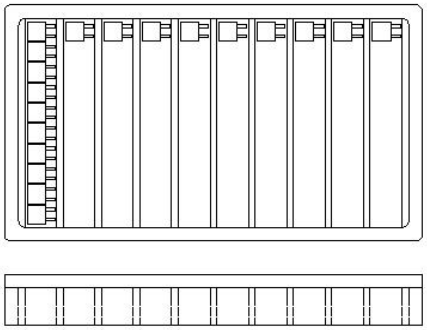
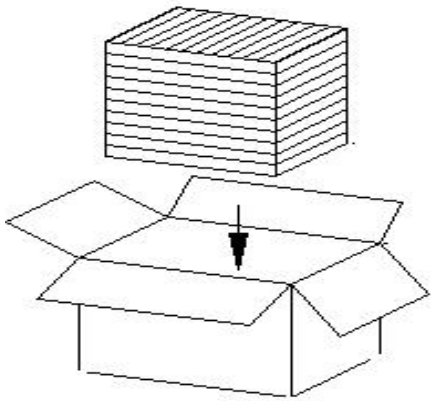
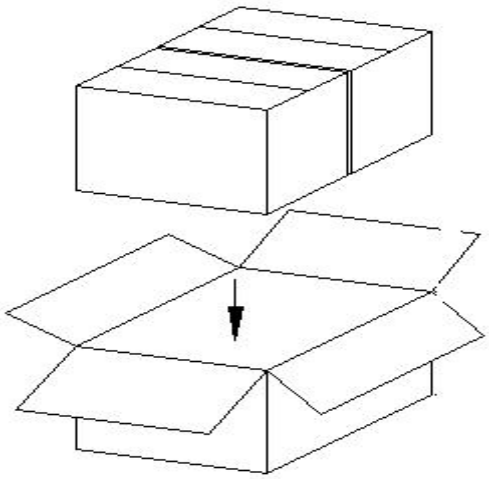


PET Size : 215*148 *16（C）mm

Quantity : 110PCS/PET



Small box Size : 238*156*165 mm
Quantity : 10PET/Small box
1Small box/1100PCS



Big box Size : 328*251*175 mm
Quantity : 2 Small box/Big box
1 Big box/2200PCS

GENERAL CHARACTERISTICS

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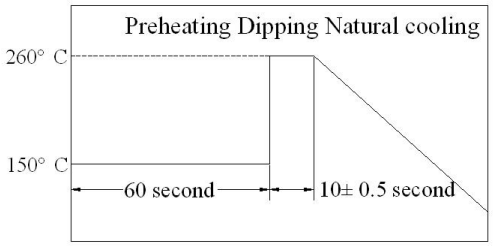
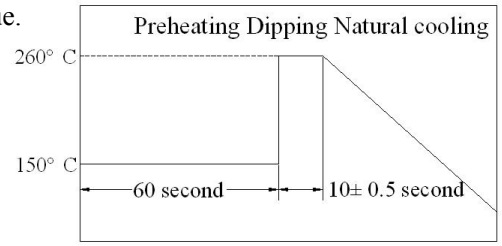
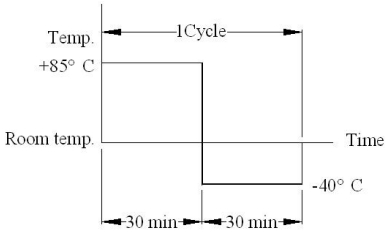
Item	Performance	Test Condition
Mechanical Performance Test		
Solder ability Test	More than 90% of terminal electrode should be covered with solder. After fluxing, component shall be dipped in a melted solder bath at 260±5℃ for 10 seconds 	
Solder Heat Resistance	Components should have not evidence of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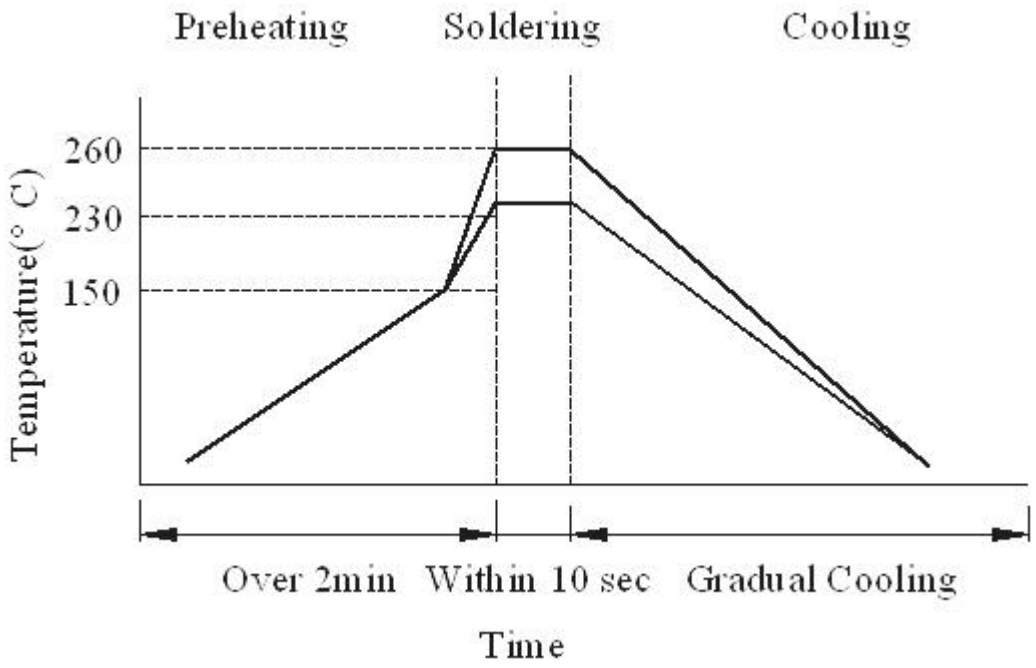
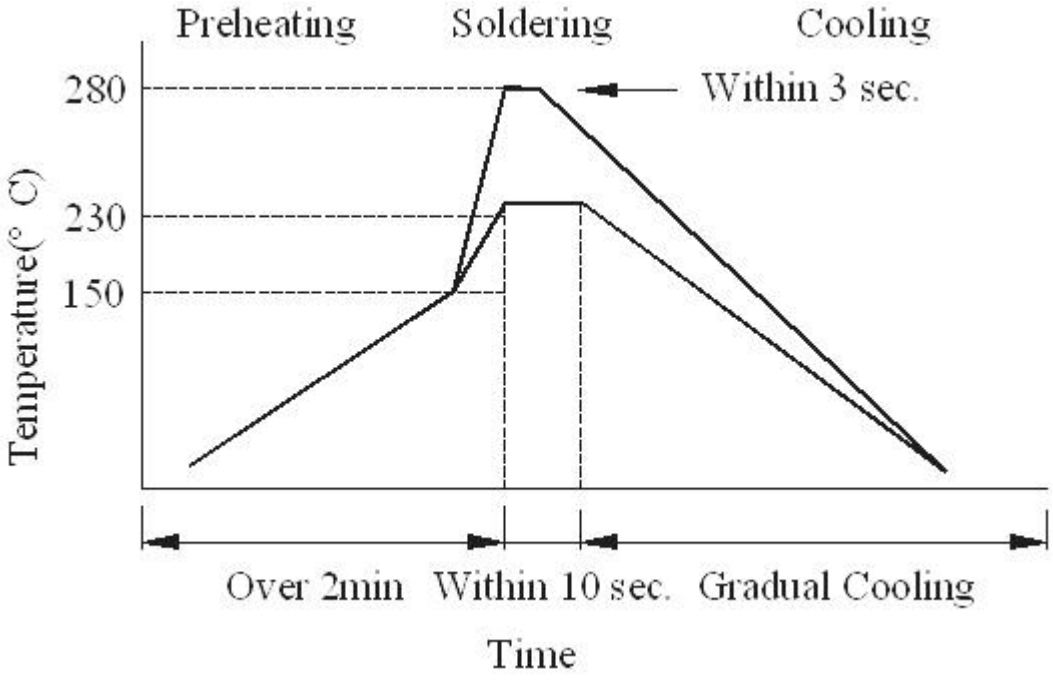
Wave Soldering



Hand soldering



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