

CUSTOMER _____

CUSTOMER' S P/N _____

DESCRIPTION _____

TOROIDAL INDUCTOR

SGTE PART NO. _____

GT1386-201N

SAMPLE NO. _____

S21080301

REVISION NO. _____

A3

DATE _____

2021/8/3

SPECIFICATION FOR APPROVAL

FULLY APPROVED	REVISE APPROVED

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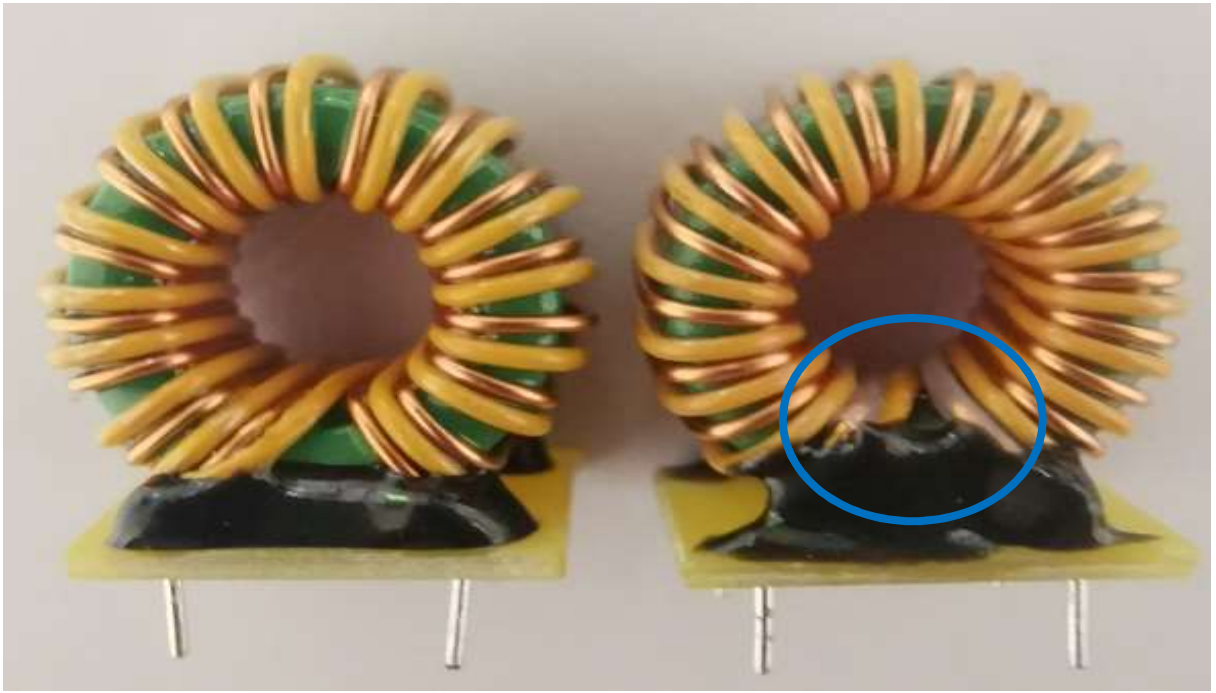
SPECIFICATION

RoHS
COMPLIANT

Customers Part Number	Item Name	Date	
	TOROIDAL INDUCTOR	2021/8/3	
Gan Tong Part NO.	Sample NO.	Revision No.	A3
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Version	Change history	Before the change	After the change	Release date
A0	NEW	—	—	2019/11/27
A1	NEW	原无耐压标准	增加耐压标准	2021/8/3
A2	NEW	原产品铜线无保护套管	现铜线进出线套10MM铁佛龙套管	2021/08/03

图示	左边铜线无保护套管	现铜线进出线套10MM铁佛龙套管
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A3	NEW	原感值200±30%公差有误，不适合环型电感	变更感值140uH-300uH	

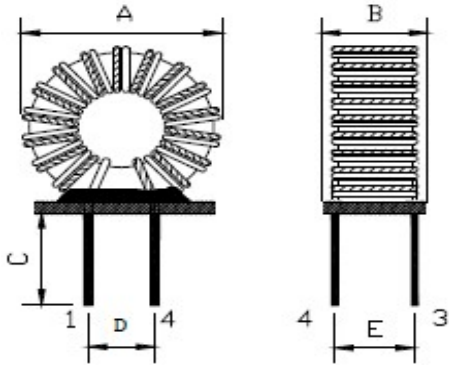
DRAWN BY	CHECKED BY	APPROVED BY
黄荣英	蒋艳军	田一

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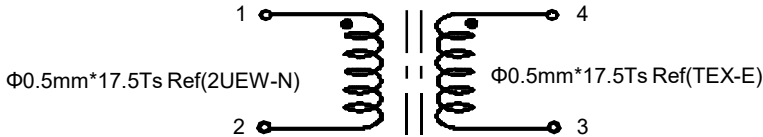
Customers Part Number	Item Name	Date	
41-110487-00G	TOROIDAL INDUCTOR	2021/8/3	
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MECHANICAL & DIMENSIONS



(UNIT: mm)	
A	16.0 MAX
B	13.0 MAX
C	3.0±0.5
D	8.0±0.5
E	7.0±0.5

备注：铜线进出线套10MM铁佛龙套管



MATERIAL LIST:

No.	Material	Specification	Supply's name	Remark
1	Core	K6 T12.7*7.9*6.35CT-G or equivalent	Dongguan Meici Electronics Co. , Ltd	
2	Wire	2UEW-155°C. 0.5mm	Shantou shengang Electrical Industrial Co. , Ltd.	E239508
3	Wire	THW-B-130°C. 0.5mm	Dongguan Hilde Electronics Co. , Ltd	E356133
4	PCB	KB-6160A. FR-4. 0. 130°C. 113.0*W10.0*H1.0mm	KINGBOARD LAMINATES HOLDINGS LTD	E123995
5	Solder	Sn99.3-Cu0.7	Huizhou Changsheng Metal Products Co. , Ltd	
7	Epoxy	Y-100	Dongguan Yuanbang Electronic Materials Co. , Ltd	

ELECTRICAL REQUIREMENTS:

PARAMETER	SPECIFICATION	CONDITION	TEST INSTRUMENTS
L (1-2)	下限140-上限300 uH	1KHz/0.25V	■LCR Agilent4284A / Chroma 11300
L (4-3)			
DCR R (1-2)	50.0 max mΩ	25°C ±5°C	■A4284A+A42841A LCR METER
DCR R (4-3)			
IDC	2.5A MAX	1KHz/0.25V	■Chroma 19052
HI-POT N1-N2	1000V / AC / 3.5mA / 60S	50HZ	■CC2670A/GY2670A

·I rms: Current that causes a 40°C temperature rise from 25°C ambient.

·All test Data is referenced to 25°C ambient.

·Operating Temperature Range: -25°C to +125°C.

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Electrical Characteristic :

PARAMETER	L	DCR			
UNIT	uH	mΩ			
SPECIFICATION	下限140-上限300	50 max			
CONDITION	1KHz/0.25V	25°C±5°C			
1	207.50	34.50			
2	198.20	34.50			
3	197.60	34.50			
4	186.80	34.30			
5	187.30	34.10			
6	199.10	35.20			
7	205.30	35.40			
8	188.60	35.10			
9	189.40	35.30			
10	189.70	35.20			
MEAN	194.95	34.81			
R	20.70	1.30			

External Dimensions:

NO	A	B	C	D				
	16.0 MAX	13.0 MAX	3.0±0.5	8.0±0.5				
1	14.50	10.14	3.14	8.01				
2	14.60	10.01	3.12	8.05				
3	14.60	10.23	3.11	8.11				
4	14.70	10.02	3.19	8.05				
5	14.50	10.38	3.17	8.04				
6	14.60	10.38	3.11	8.08				
7	14.60	10.34	3.15	8.02				
8	14.50	10.36	3.14	8.06				
9	14.70	10.35	3.12	8.07				
10	14.50	10.32	3.13	8.04				
MEAN	14.58	10.25	3.14	8.05				
R	0.20	0.37	0.08	0.10				

Inductance measured at 1.0KHz/0.25Vrms..

Electrical specifications at 25±5°C. Humidity 60±10%

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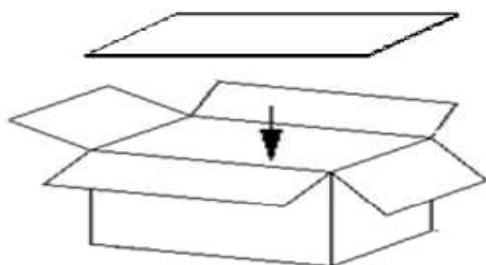
PACKAGING



PE bag Size : 152*100 mm

Quantity : 200PCS/bag

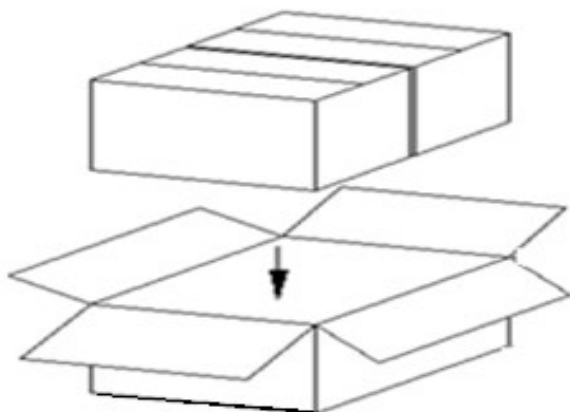
2flat card /Small box



Small box Size : 238*156*165 mm

Quantity : 20 bag/Small box

1Small box/4000PCS



Big box Size : 328*252*182mm

Quantity : 2 Small box/Big box

1 Big box/8000PCS

Storage

1. Temperature and humidity conditions: Less than 40°C and 70% RH.
2. Recommended products should be used within 6 months form 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.

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SOLDERING CONDITIONS

Figure 1. Re-flow Soldering

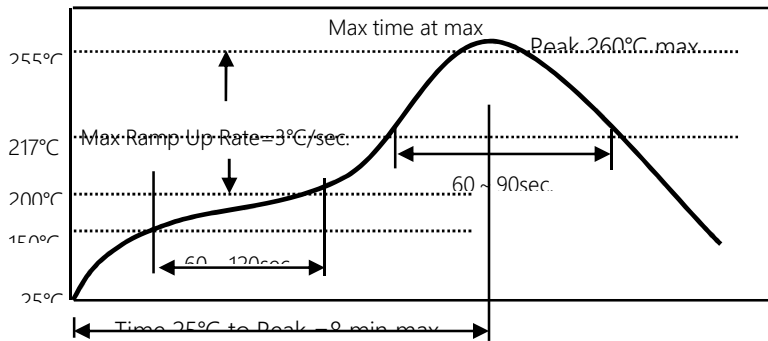
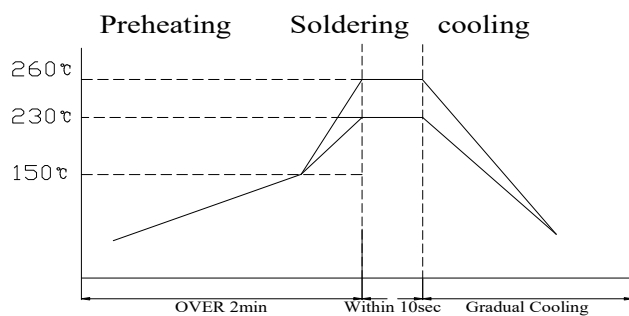


Figure 2. Wave Soldering



Soldering Iron: temperature 350°C±10°C , dwell time shall be less than 3 sec.

Reliability and Testing Conditions/Surface Mount Type Power Inductors

Item	Specification	Conditions															
Solderbility	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.															