

CUSTOMER 5010

CUSTOMER'S P/N _____

DESCRIPTION POWER INDUCTOR

GAN TONG PART NO. GTCD1312-470M

DATE 10-Sep-08 SAMPLE NO. 08053008-C

SPECIFICATION FOR APPROVAL

FULLY APPROVED	REVISE APPROVED

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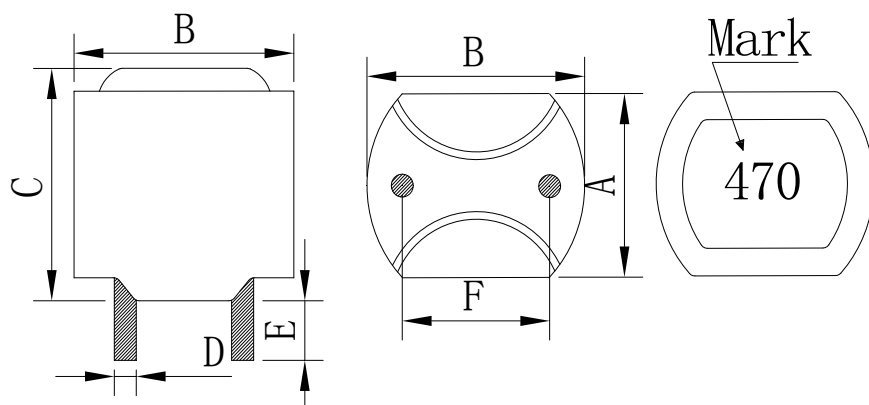
APPROVED BY	CHECKED BY	DRAWING BY
		Jeff 9/10

SPECIFICATION

**RoHS
COMPLIANT**

Customers Part Number	Item Name	Date
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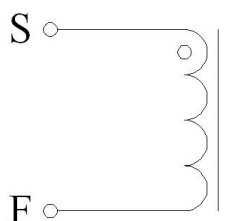
External Dimensions Unit (mm)



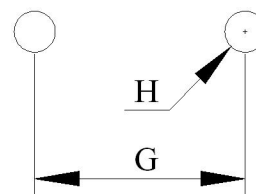
A	12.0± 0.5 (mm)
B	13.0± 0.5 (mm)
C	17.5 Max (mm)
D	0.8± 0.1 (mm)
E	3.4± 0.5 (mm)
F	7.5± 0.5 (mm)
G	7.5± 0.5 (mm)
H	1.2 (ref)

Coating: Gray

Connection



Recommended Land Pattern



Electrical Specification

Measurement Item	Unit Tolerance	Specification	Test Frequency	Test Instrument
L	uH (±20%)	47uH ±20%	100KHz/1V	LCR Meter Agilent/4284A or Zentech /3252
DCR	mΩ (Max)	46 mΩ(Max)		Zentech/ 16502
I rms	Amps	7.2A	100KHz/1V	LCR Meter Agilent/4284A+42841A
I sat	Amps	7.6A	100KHz/1V	or Zentech /3302+1320

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

TEST REPORT

**RoHS
COMPLIANT**

Customers Part Number	Item Name	Date
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Electrical Characteristic

Item	L0	DCR	I rms	I sat
Specification	47uH	46mΩ	7.2Amps	7.6Amps
Tolerance	±20%	Max	$\Delta T \leq 40^{\circ}\text{C}$	$L \geq 65\%$
1	45.65	35.28	15°C	81%
2	45.86	35.26		
3	46.15	35.23		
4	45.69	35.29		
5	46.28	35.26		
6	45.95	35.29		
7	44.88	35.28		
8	46.52	35.23		
9	46.32	35.25		
10	45.97	35.28		

External Dimensions

Item	A	B	C	D	E	F
Specification	12.0	13.0	17.5	0.8	3.4	7.5
Tolerance	± 0.5 (mm)	± 0.5 (mm)	Max (mm)	± 0.1 (mm)	± 0.5 (mm)	± 0.5 (mm)
1	12.31	13.32	16.88	0.83	3.25	7.75
2	12.30	13.39	16.87	0.81	3.26	7.77
3	12.37	13.38	16.79	0.84	3.25	7.80
4	12.35	13.32	16.85	0.85	3.25	7.76
5	12.34	13.34	16.82	0.82	3.25	7.79
6	12.32	13.36	16.86	0.84	3.29	7.76
7	12.31	13.27	16.84	0.88	3.28	7.75
8	12.31	13.32	16.87	0.81	3.29	7.76
9	12.31	13.32	16.85	0.83	3.25	7.74
10	12.35	13.34	16.82	0.82	3.25	7.81

Inductance measured at 100KHz/1Vrms.

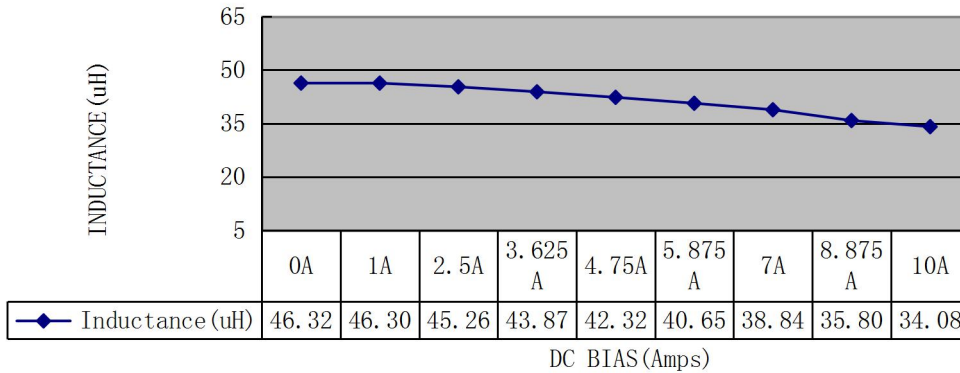
Electrical specifications at 25°C. Humidity 60±10%

ELECTRICAL CHARACTERISTICS

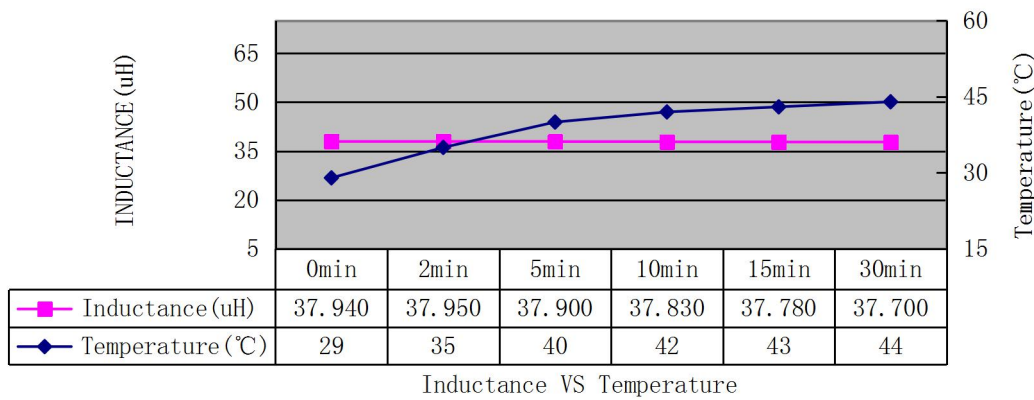
**RoHS
COMPLIANT**

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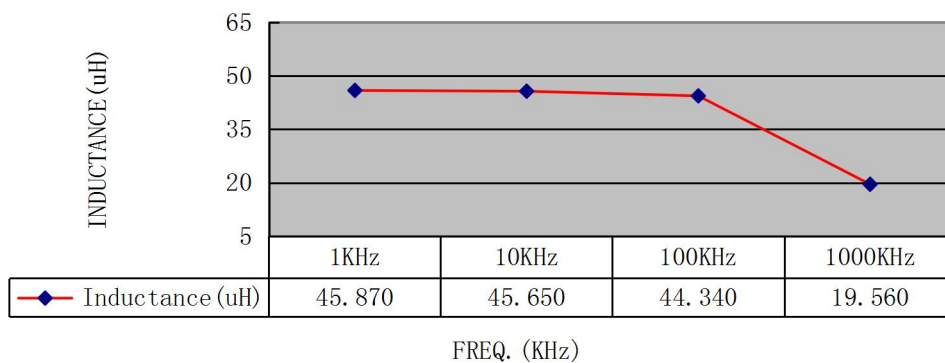
Inductance VS DC current (Amps)



DCcurrent VS Temperature



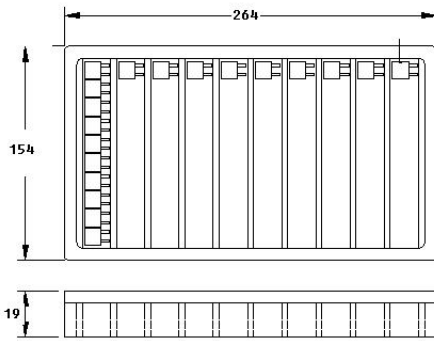
Inductance VS Frequency



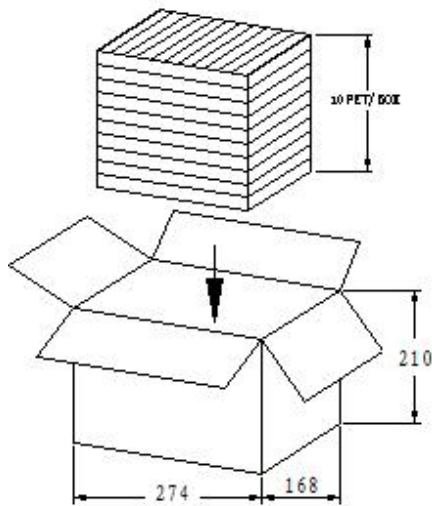
PACKING FOR SPECIFICATION

**RoHS
COMPLIANT**

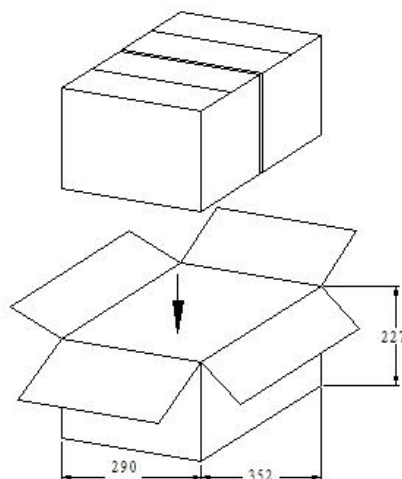
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PET Size : 264*154*19 mm
Quantity : 100PCS/PET



Small box Size : 274*168*210mm
Quantity : 10PET/Small box
1 Small box/1000PCS

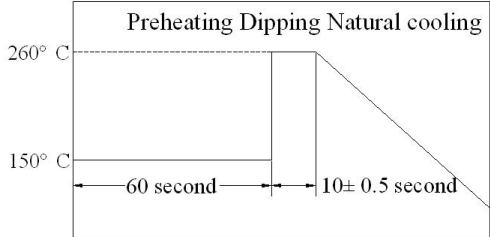
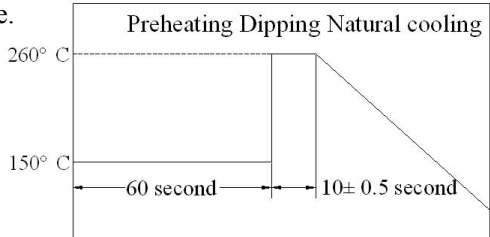
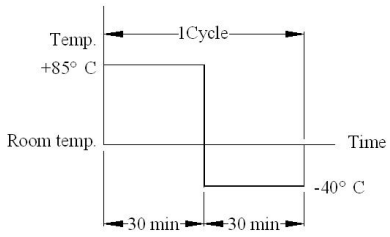


Big box Size : 352*290*227 mm
Quantity : 2 Small box/Big box
1 Big box/2000PCS

GENERAL CHARACTERISTICS

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Item	Performance	Test Condition
Mechanical Performance Test		
Solder ability Test	<p>More than 90% of terminal electrode should be covered with solder.</p> <p>After fluxing, component shall be dipped in a melted solder bath at $260\pm 5^{\circ}\text{C}$ for 10 seconds</p>	
Solder Heat Resistance	<p>Components should have not evidence of electrical and mechanical damage.</p> <p>Inductance: within $\pm 20\%$ of initial value.</p> <p>Preheat: 150°C 60 seconds</p> <p>Solder: (SnCu0.7)</p> <p>Solder Temperature: $260\pm 5^{\circ}\text{C}$</p> <p>Flux: Rosin.</p> <p>Dip time: 10 ± 0.5 seconds</p>	
Low temperature storage test	<p>1. Appearance: No damage.</p> <p>2. Inductance: within $\pm 20\%$ of initial value.</p> <p>3. No disconnection or short circuit.</p>	<p>Temperature: $-40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Time: 500 ± 12 Hours</p> <p>Recovery: 4 to 24 hours of recovery under the standard condition after the removal from test chamber.</p>
High temperature storage test		<p>Temperature: $85^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Time: 500 ± 2 Hours</p> <p>Recovery: 4 to 24 hours of recovery under the standard condition after the removal from test chamber.</p>
Thermal Shock Test (Temperature cycle)		<p>$-40 \pm 5^{\circ}\text{C}$ for 30 Minutes. $+85 \pm 5^{\circ}\text{C}$ for 30 Minutes.</p> <p>Total: 10 Cycles</p> 
Humidity load life test		<p>Temperature: $40 \pm 5^{\circ}\text{C}$ Humidity: 90-95%</p> <p>Time: 500 ± 12 Hours Load: Allowed DC current</p> <p>Recovery: 4 to 24 hours of recovery under the standard condition after the removal from test chamber.</p>

THE CONDITION OF REFLOW

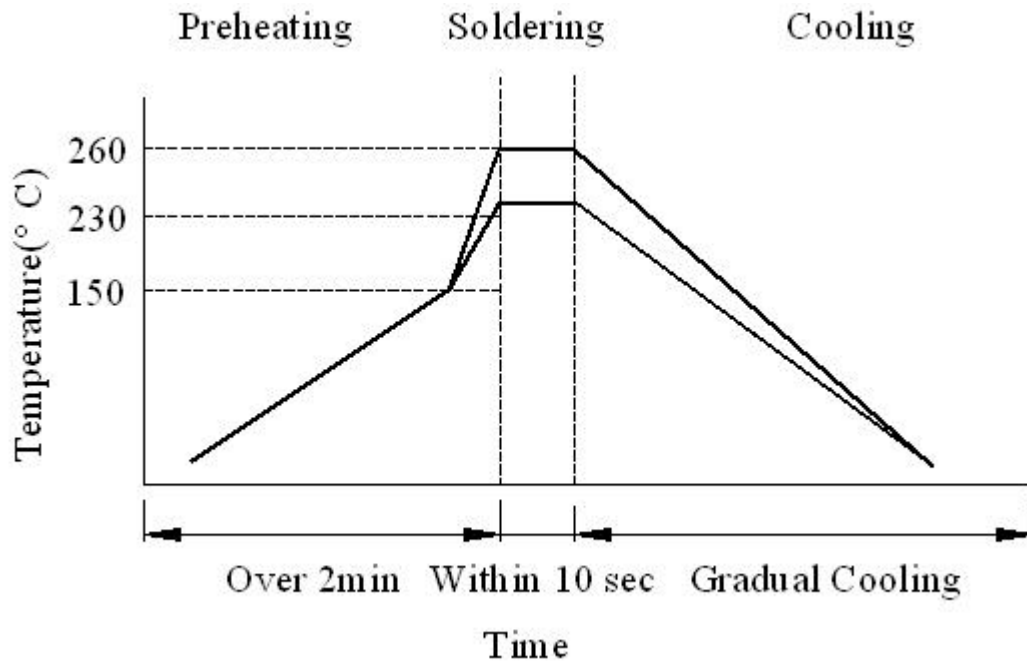
RoHS
COMPLIANT

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Wave Soldering



Hand soldering

