

CUSTOMER \_\_\_\_\_

CUSTOMER' S P/N \_\_\_\_\_

DESCRIPTION Common Mode Filter

SGTE PART NO. CW2012-900

SAMPLE NO. S17101704 REVISION NO. A0 DATE 2017/10/17

## SPECIFICATION FOR APPROVAL

FULLY APPROVED	REVISE APPROVED

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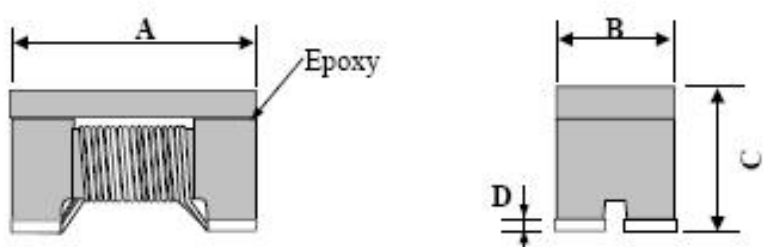


# SPECIFICATION

**RoHS  
COMPLIANT**

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	Common Mode Filter	2017/10/17	
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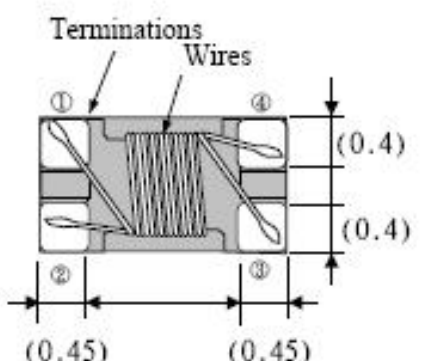
## MECHANICAL & DIMENSIONS



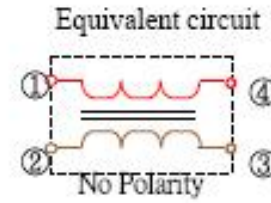
Epoxy

(UNIT: mm)

A	$2.0 \pm 0.2$
B	$1.2 \pm 0.2$
C	$1.2 \pm 0.2$
D	$0.2 \pm 0.1$

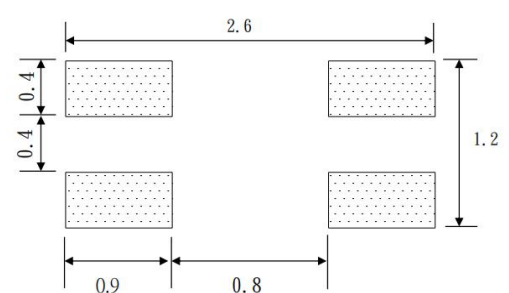


Terminations Wires



Equivalent circuit

No Polarity



## ELECTRICAL REQUIREMENTS:

PARAMETER	SPECIFICATION	CONDITION	TEST INSTRUMENTS
Z	$90 \pm 25\%$ $\Omega$	100MHz	■ TEST EQUIPMENT: TH2818 ■ TEST INSTRUMENTS: TH1775 ■ TEST INSTRUMENTS: CH502BC
DCR	0.3 max $\Omega$		
IDC	400.0 mA	MAX	

- The CB series can be used on high current circuits due to its low DC resistance. It can match power lines to a maximum of 300mA DC.
- All test Data is referenced to 25°C ambient.
- Operating Temperature Range: -25°C to +125°C.

# TEST DATA

## DIMENSION & ELECTRIC CHARACTER

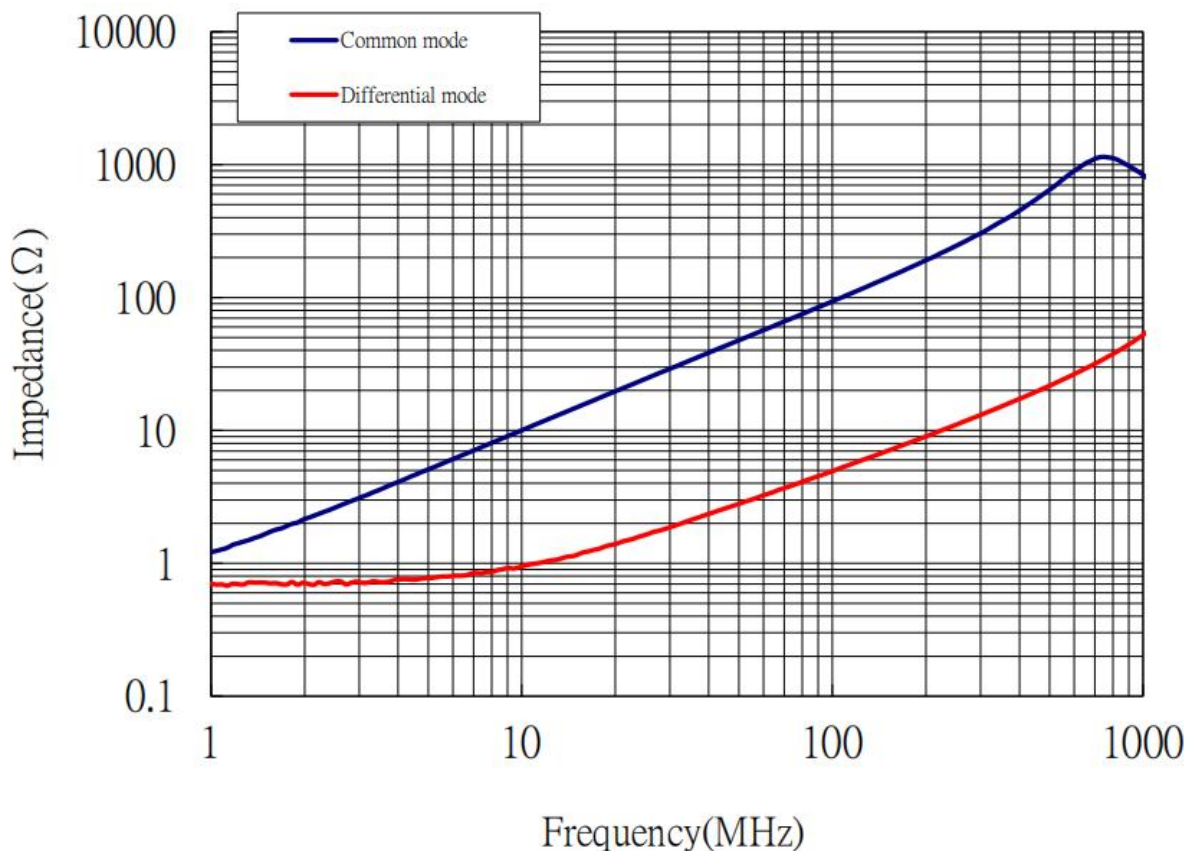
Customers Part Number				Gan Tong Part NO.		CW2012-900		
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TEMP.	25 ° C	HUMIDITY	65%	INSPECTION Q'TY		5 PCS		
	A	B	C	D		Z	DCR	
ITEM	mm	mm	mm	mm		Ω	Ω	
SPEC	2.0 ± 0.2	1.2 ± 0.2	1.2 ± 0.2	0.2 ± 0.1		90 ± 25%	0.3 max	
TEST FREQ.						100MHz		
1	2.05	1.22	1.20	0.20		85.00	0.25	
2	2.01	1.22	1.20	0.19		93.00	0.24	
3	2.03	1.20	1.19	0.21		85.00	0.21	
4	2.00	1.20	1.20	0.19		92.00	0.25	
5	2.04	1.21	1.20	0.20		90.00	0.23	
6								
7								
8								
9								
10								
AVG.	1.01	0.61	0.60	0.10		89.00	0.236	
OK/NG	OK	OK	OK	OK		OK	OK	
REMARK:								

# SPECIFICATION

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## Typical Impedance v.s. Frequency Curve



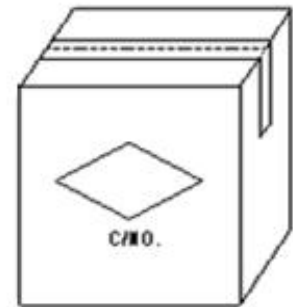
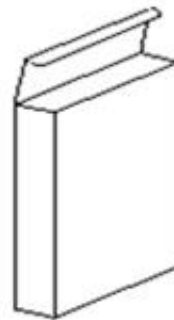
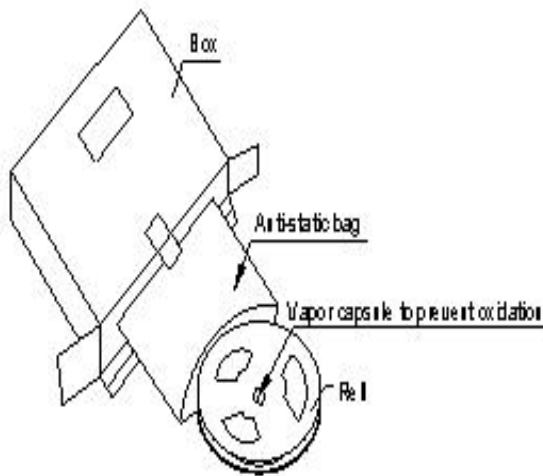
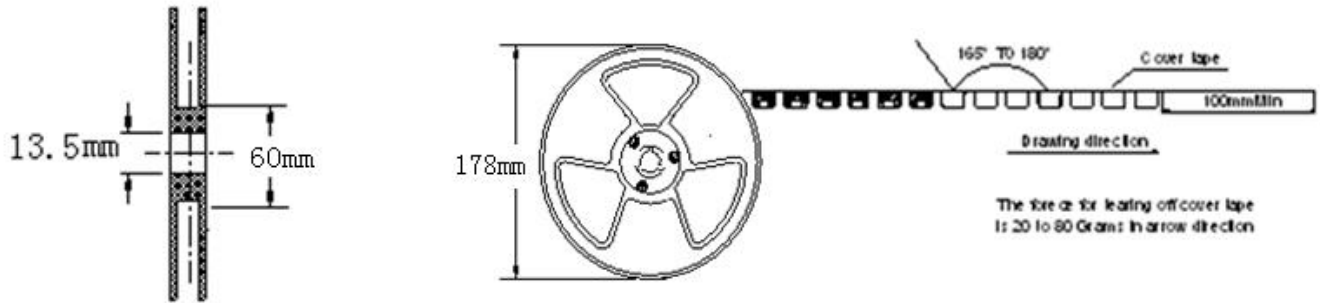
- Internal silver printed layers and magnetic shielded structures to minimize crosstalk.
- It has sharp impedance characteristics at desirable frequency and does not affect the signal.

# SPECIFICATION

**RoHS  
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## PACKAGING



## Packaging Quantity

Unit: mm					
Inner Carton		Outer Carton			
Reel size	Quantity/Reel	Inside the box size	Quantity	Carton size	Quantity
∅ 180	2000pcs	185*185*95	20000pcs	190*190*390	80000pcs

### Storage

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

# SPECIFICATION

**RoHS  
COMPLIANT**

Customers Part Number	Item Name	Date	
	SMD Power Inductor	2017/10/17	
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## SOLDRING CONDITIONS

Figure 1. Re-flow Soldering

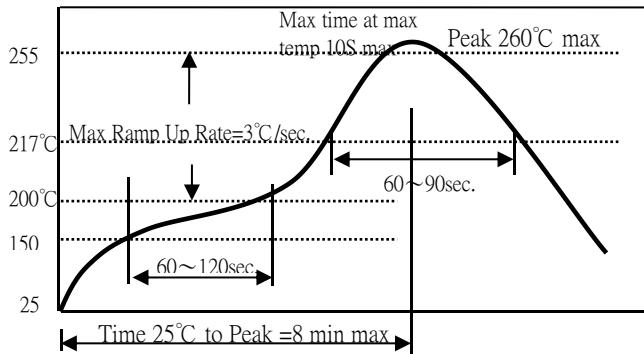
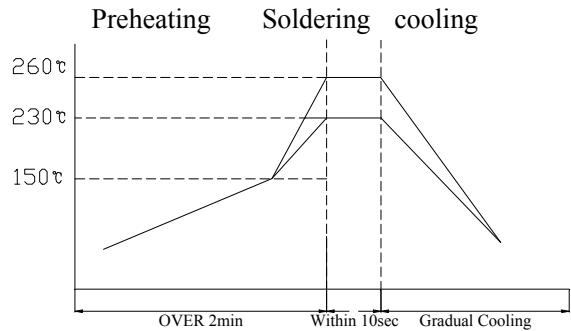


Figure 2. Wave Soldering



Soldering Iron: temperature  $350^{\circ}\text{C} \pm 10^{\circ}\text{C}$  , 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 $\pm 20\%$ of initial value and appearance shall not break.																
Heat resistance	Inductance within $\pm 20\%$ of initial value. No disconnection or short circuit. Appearance shall not break.	After $500 \pm 12$ hours in $145 \pm 5^{\circ}\text{C}$ and 2 hour drying under normal condition.															
Cold resistance	Inductance within $\pm 20\%$ of initial value. No disconnection or short circuit. Appearance shall not break.	After $500 \pm 12$ hours in $-40 \pm 2^{\circ}\text{C}$ and 2 hour drying under normal condition.															
Thermal shock	Inductance within $\pm 20\%$ of initial value. No disconnection or short circuit. Appearance shall not break.	After 10 cycles of following condition. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Step</th> <th>Temperature (<math>^{\circ}\text{C}</math>)</th> <th>Times (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><math>-40 \pm 2</math></td> <td>30</td> </tr> <tr> <td>2</td> <td>Room Temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td><math>145 \pm 5</math></td> <td>30</td> </tr> <tr> <td>4</td> <td>Room Temperature</td> <td>Within 3</td> </tr> </tbody> </table>	Step	Temperature ( $^{\circ}\text{C}$ )	Times (min.)	1	$-40 \pm 2$	30	2	Room Temperature	Within 3	3	$145 \pm 5$	30	4	Room Temperature	Within 3
Step	Temperature ( $^{\circ}\text{C}$ )	Times (min.)															
1	$-40 \pm 2$	30															
2	Room Temperature	Within 3															
3	$145 \pm 5$	30															
4	Room Temperature	Within 3															
Humidity Resistance	Inductance within $\pm 20\%$ of initial value. No disconnection or short circuit. Appearance shall not break.	After $500 \pm 12$ hours in $40 \pm 2^{\circ}\text{C}$ and 90 to 95% humidity , and 2 hour drying under normal condition.															
* Vibration Test	Inductance within $\pm 20\%$ 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.															