CUSTOMER _____

CUSTOMER' S P/N _____

DESCRIPTION SMD Inductor

SGTE PART NO. MCM9070-701N

SAMPLE NO. S18051501 REVISION NO. A1 DATE 2022/9/9

SPECIFICATION FOR APPROVAL

FULLY APPROVED	REVISE APPROVED

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SPECIFICATION

RoHS COMPLIANT

Customers Part Number	Item Name	Date	
	SMD Inductor	2022/9/9	
Gan Tong Part NO.	Sample NO.	Revision No.	A1
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Version	Change history	Before the change	After the change	Release date
A0	NEW	—	—	2018/5/15
A1		·Operating Temperature Range: -25℃ to +125℃.	·Operating Temperature Range: -40℃ to +125℃.	2022/9/9

DRAWN BY	CHECKED BY	APPROVED BY
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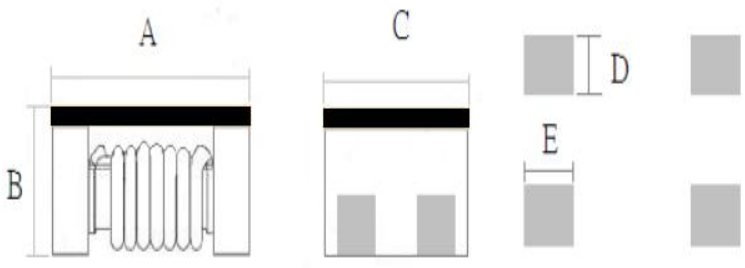
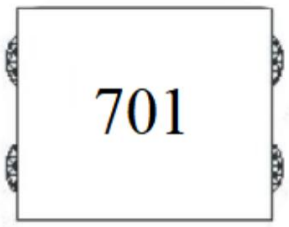
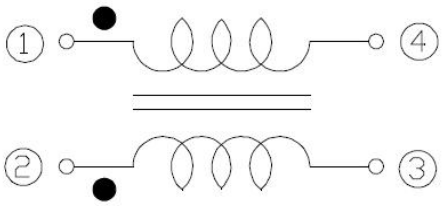
SHAPES AND DIMENSIONS:



Unit:mm	
A	9.0±0.5
B	5.0 MAX
C	7.0±0.5
D	2.0 TYP
E	2.0 TYP



CIRCUIT DIAGRAM:



ELECTRICAL REQUIREMENTS:

MAGLAYERS PT/N0.	Impedance at (100MHz)	Resistance DC(mΩ) max	RATED CURRENT(A)	Insulation Resistance (MΩ) min
MCM9070-701N	700Ω±30%	10	4.0	10

·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: -40℃ to +125℃.

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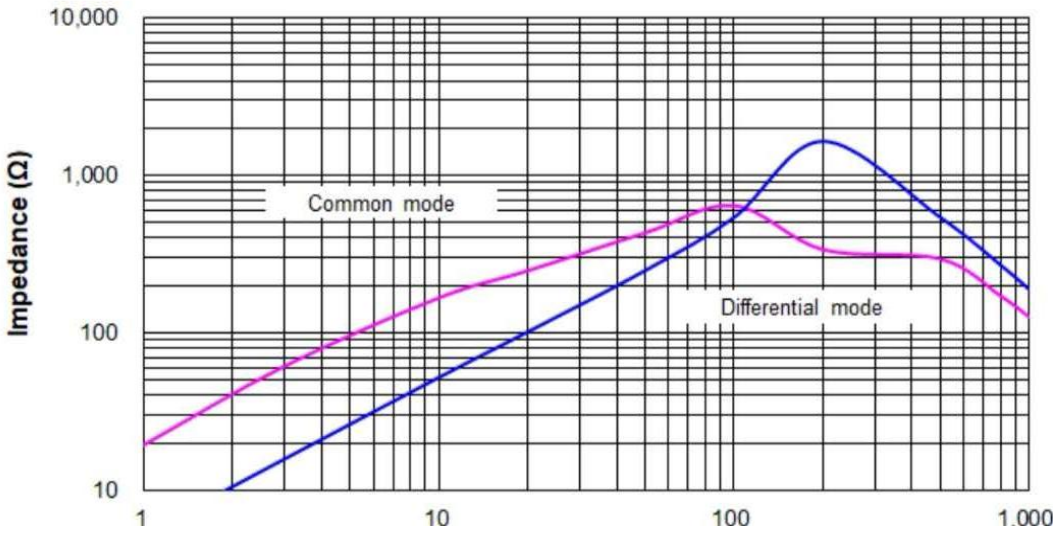
CHARACTERISTICS(REFERENCE)

MCM9070-701N



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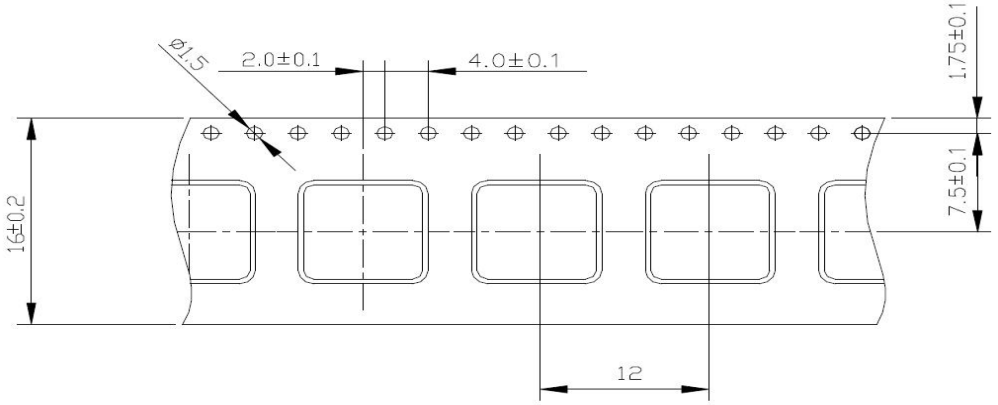
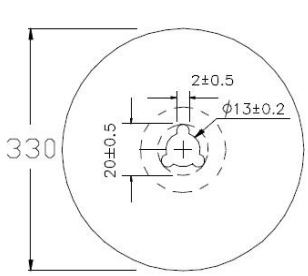
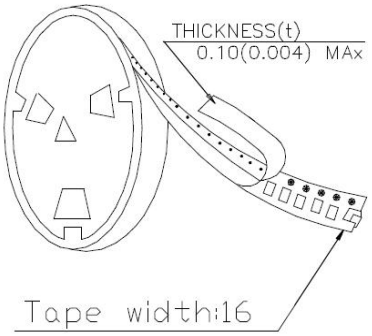
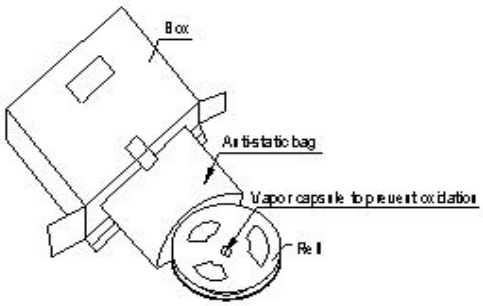
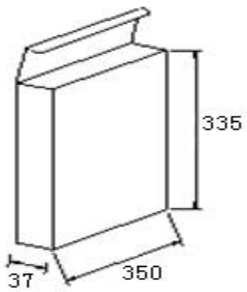
PACKAGING

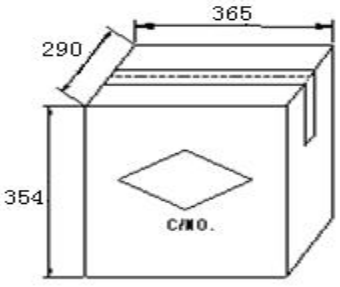












Packaging Quantity

Unit: mm

Inner Carton		Quter Carton			
Reel size	Quantity/Reel	Inside the box size	Quantity	Carton size	Quantity
¢330	1500pcs	350*335*37	4500pcs	365*345*290	9000pcs

Storage

1. Temperature and humidity conditions: Less than 40℃ 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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SOLDRING CONDITIONS

Figure 1. Re-flow Soldering

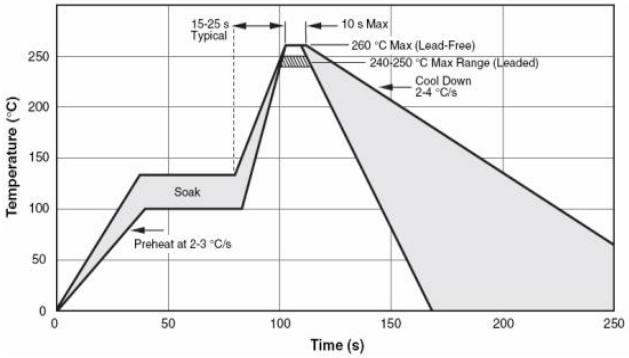
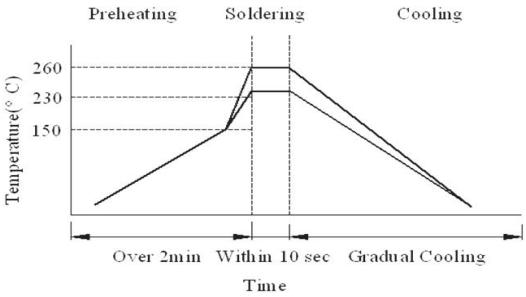
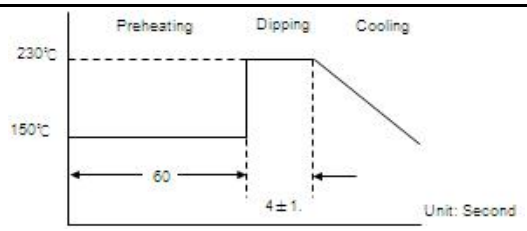
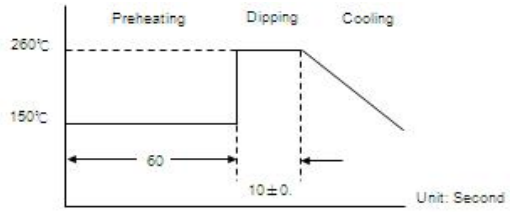


Figure 2. Wave Soldering



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

Reliability and Testing Conditions/Sureface 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 125±5℃ 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℃ 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><tr><th>Step</th><th>Temperature (℃)</th><th>Times (min.)</th></tr><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>125±5</td><td>30</td></tr><tr><td>4</td><td>Room Temperature</td><td>Within 3</td></tr></table>
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 500±12 hours in 40±2℃ 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.