CUSTOMER：　　DATE:

纳入仕样书
SPECIFICATION

PRODUCT NAME:　Winding Wire Common Mode Choke Coil

YOUR PART NO.:

OUR PART NO.:　MGRC7060M701T-2-LF

RECEPTION THE SPECIFICATION HAS BEEN ACCEPTED. COMPANY：　　DATE：		
批准 CFMD	审核 CHKD	接收 RCVD

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MANUFACTURING NAME

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CFMD. 批准	CHKD. 审核	DSGD. 担当

1. Scope

This specification applies to the MGRC series of Common Mode Choke Coil.

2. Product Identification

MGRC	7060	M	701	T	-	2	-	LF
①	②	③	④	⑤		⑥		⑦

① Series name

② Dimensions L×W：（7060=7.0×6.0mm）

③ Material code

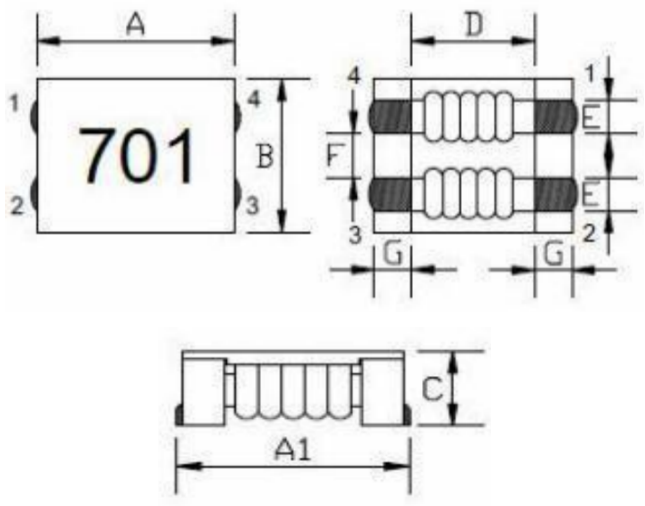
④ Impedance：（701=700Ω min）

⑤ Packing Style：（T: Taping B: Bulk）

⑥ Number of signal lines

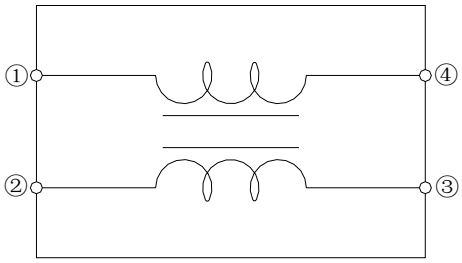
⑦ Lead Free

3. Shapes and dimension and an equivalent circuit



Dimensions in mm	
A	7.0±0.5
A1	7.5±0.5
B	6.0±0.5
C	3.5±0.3
D	3.5Typ
E	1.5±0.2
F	1.5±0.2
G	1.75±0.2

Equivalent circuit



4. Electrical characteristics

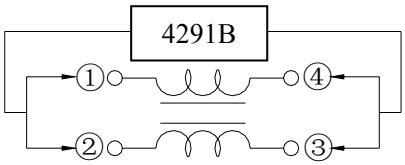
4.1 Electrical specification

Part No.	Z (Ω)/100MHz Min	Z (Ω)/100MHz Typ	Idc (A) /max	RDC(Ω) /max	Rated Voltage(V) /max	Insulation Resistance (MΩ)/min	印字
MGRC7060M701T-2-LF	500	700	5.0	0.24	125	10	701

4.2 Test equipment

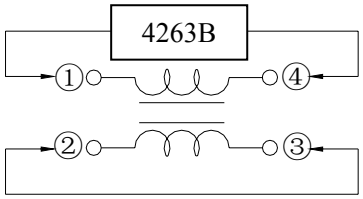
⑴ Common mode impedance

Measured by using 4291B RF impedance/material analyzer



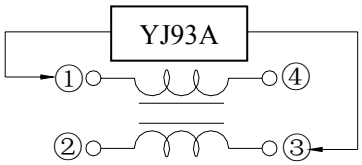
⑵DC resistance

Measured by using 4263B LCR meter



⑶Insulation resistance

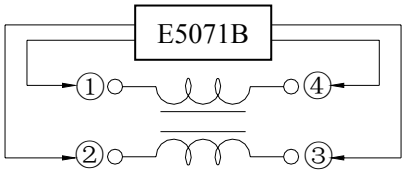
Measured by using YJ93A Standard DC voltage source.



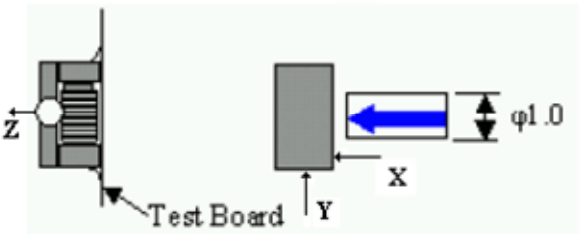
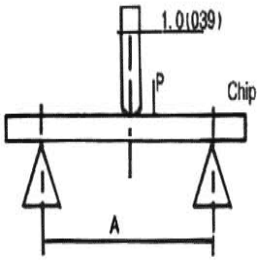
⑷Cut off frequency

Measured by using E5071B net work analyzer

Cut off frequency is defined as frequency of 3dB attenuation.



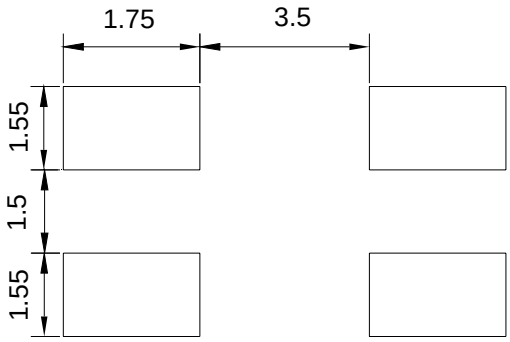
5.Reliable Performance

NO.	Item	Specifications	Test Methods
1	Solder-Ability	It can be connected on the Recommendation soldering condition.	Solder: Sn Temperature: 255℃+5℃/-0℃ Flux: rosin Duration: 3.5±0.5s
2	Leaching Resistance	More than 75% of termination Should be covered with new solder.	Solder: Sn Temperature: 270℃+2℃/-0℃ Flux: rosin Duration: 10±0.5s
3	Terminal Strength	The terminal and body should be no damage	Solder a chip to test substrate, and then laterally apply a load 9.8N in the X, Y and Z directions 在 X,Y,Z 方向上施加拉力如下： 
4	Bending Strength	No mechanical damage should be noticed	When the board curve to 2mm(0.079 inches) 

NO.	Item	Specifications	Test Methods
5	Vibration	1.No mechanical damage shall be noticed 2.Impedance shall be within ±20% of the initial value 3.Insulation resistance: ＞10(MΩ)DC	Frequency: 10 to 55Hz Amplitude: 1.52mm Direction and time :X, Y and Z directions for 2 hours each.
6	Humidity resistance		a. Test condition Temp.:85±2℃ Humidity: 90%~95% Test time: 500±12 h b. Measurement method: The component should be stabilized at normal condition for (24±2) hours before test.
7	High temperature resistance		a. Test condition Applied rated current. Temp.: 85±2℃ Test time: 500±12 h b. Measurement method: The component should be stabilized at normal condition for (24±2) hours before test.
8	Low temperature resistance		a. Test condition Temp.: -40±2℃ Test time: 500±12 h b. Measurement method: The component should be stabilized at normal condition for (24±2) hours before test.
9	Thermal shock (Temperature cycle)		a. Test condition 1) Temp.: -40℃, time: 30±3min 2) Temp.: +85℃, time: 30±3min 100 cycles b. Measurement method: The component should be stabilized at normal condition for (24±2) hours before test.

6. Recommended Soldering Conditions

⑴ Recommended Footprint

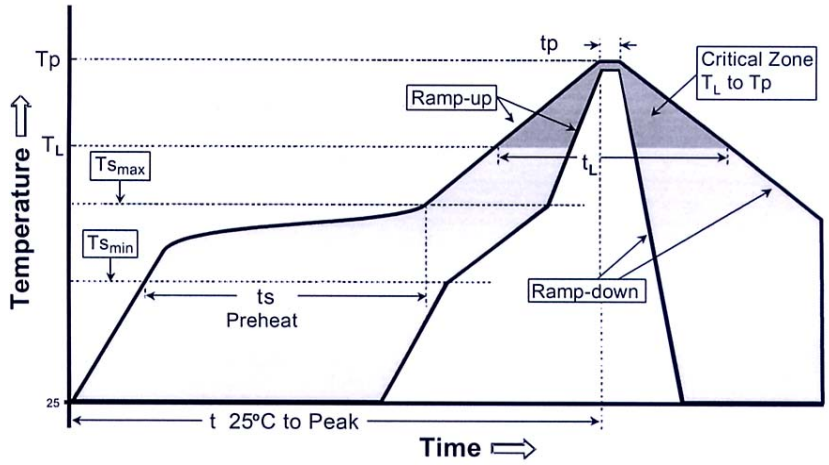


⑵ Recommended Reflow soldering conditions

Profile Feature	Lead-Free Assembly
Average Ramp-Up Rate (Tsmax to Tp)	3℃ C/second max.
Preheat – Temperature Min (Tsmin) – Temperature Max (Tsmax) – Time (tsmin to tsmax) min to tsmax)	150 ℃ 200 ℃ 60-180 seconds
Time maintained above: – Temperature (TL) – Time (tL)	217 ℃ 60-150 seconds
Peak/Classification Temperature (Tp) Peak/Classification Time (Tp)	260 ℃ 3-4 seconds
Time within 5 °C of actual Peak Temperature (tp)	20-40 seconds
Ramp-Down Rate	6°C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

Note 1: All temperatures refer to topside of the package, measured on the package body surface.

. Standard soldering profile



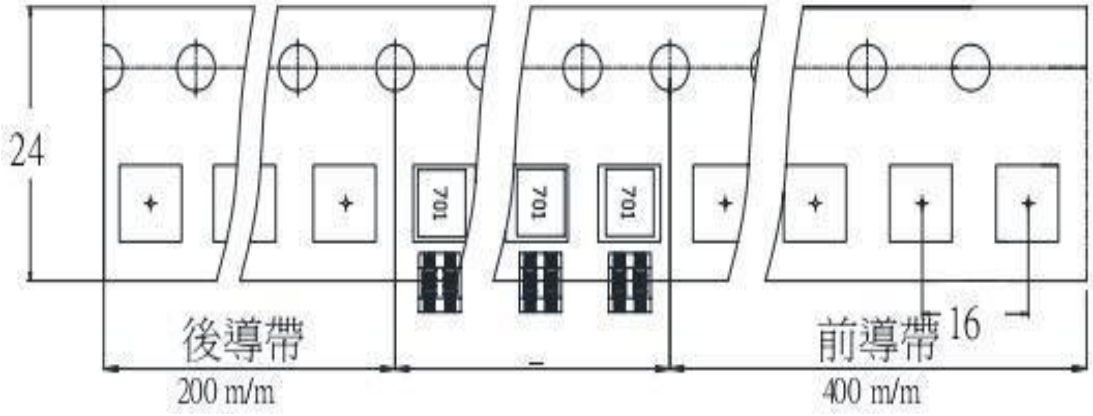
⑶ Reworking with soldering iron

The following conditions must be strictly followed when using a soldering iron.

Pre-heating	150℃, 1 minute
Tip temperature	280℃ max
Soldering iron output	30w max
End of soldering iron	Φ1mm max
Soldering time	2 seconds max

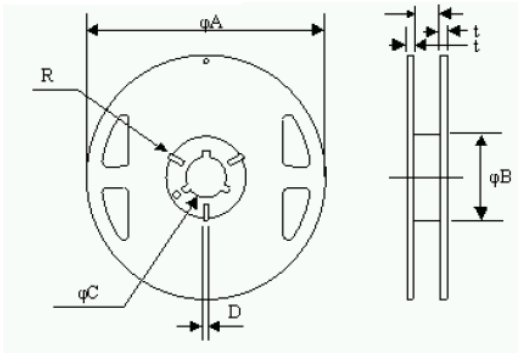
9. Packaging

⑴ Dimensions of Tape:



⑵ Dimensions of Reel

Unit: mm



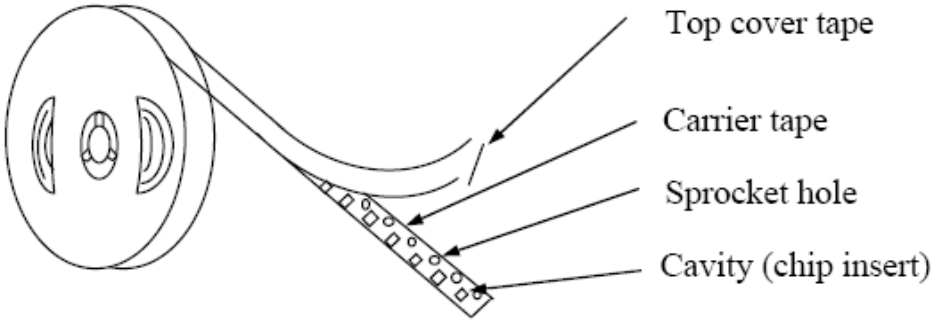
A	180+0，-3
B	60+1，-0
C	13.0±0.2
D	2.2±0.5
W	9.0±1.0
t	1.2
R	1.0

Reel material: PS (Polystyrene)

⑶ Pulling strength of tapes:

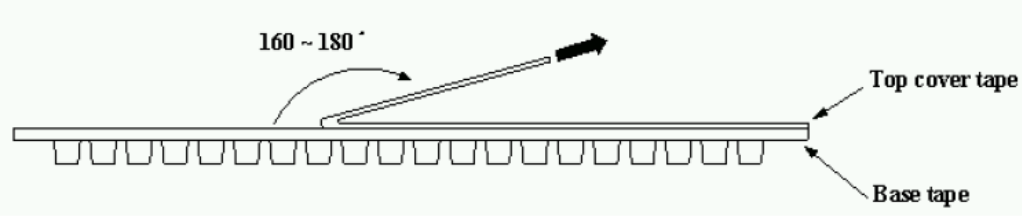
Carrier tape	10N or more (1kgf or more)
Cover tape	5N or more (1kgf or more)

⑷ Taping figure and drawing direction:



⑸ Peeling strength of cover tape:

Cover tape	0.05~0.69N



Test condition:

Temperature: 5~35℃

Humidity: 45~85%

(6) Packing quantity

φ180mm reel T type:1500pcs/rell