

Specification for Approval

Customer	
Product Name	Wire Wound Molded SMD Power Inductors
Customer P/N:	
Cjiang P/N:	FRICM-5040 Series

[New Released, Revised]

SPEC No.:

REMARK:		
Customer Approval Feedback		

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Version change history

Rev	Date	Description	APPROVED	CHECKED	DRAWN
1.0	2023/9/1	文件制定	Bond	Charles	王云燕

Caution :

All products listed in this specification are developed, designed and intended for use in general electronics equipment. The products are not designed or Warranted to meet the requirements of the applications listed below, whose performance and/or quality require especially high reliability, or whose failure, malfunction or trouble might directly cause damage to society, person, or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below. Please contact us for more details if you intend to use our products in the following applications.

1. Aircraft equipment.
2. Aerospace equipment.
3. Undersea equipment.
4. nuclear control equipment.
5. military equipment.
6. Power plant equipment.
7. Medical equipment.
8. Transportation equipment (automobiles, trains, ships,etc.)
9. Traffic signal equipment.
10. Disaster prevention / crime prevention equipment.
11. Data-processing equipment.
12. Applications of similar complexity or with reliability requirements comparable to the applications listed in the above.

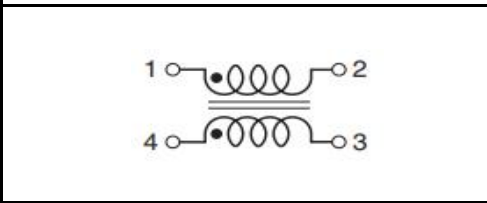
客户名称 CUSTOMER	-----	客户品名 CUSTOMER P/N	-----	版别 REV.	1.2
产品类型 PRODUCT TYPE	贴片共模电感	品名 OURS P/N	FRICM-5040-SERIES	文件编号 FILE NO.	

一.外观图/DIMENSION (单位/UNIT : mm)

	A	4.8 ±0.2
	B	5.0 ±0.2
	C	4.5 Max
	D	0.8 Typ
	E	1.0 Typ
	F	2.3 Ref
	G	1.6 Ref
	H	0.8 Ref
	I	1.0 Ref
	(Plated Dimensions) Unit : m/m ref.	

二.电路图/CIRCUIT DIAGRAM

三.注意事项/NOTE :



四.电气特性/ELECTRICAL CHARACTERISTIC

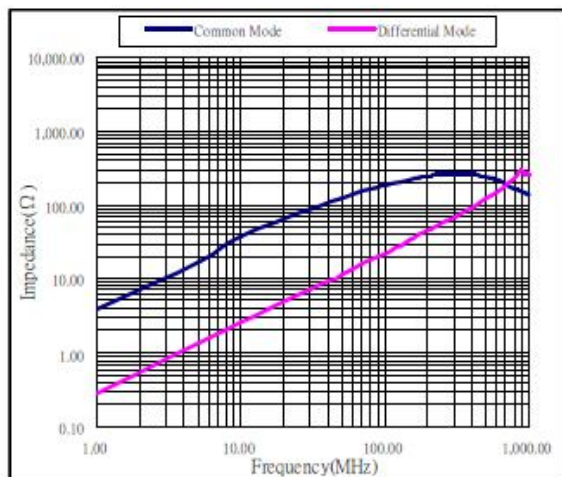
CUSTOMER P/N	Common mode Impedance @100MHz (Ω)	Inductance (uH) @100KHz/0.1V	Rated Voltage (Vdc) MAX	DCR (Ω) MAX	Rated Current (A) Max.	IR (MΩ) MIN
FRICM-5040-191	190 (Typ)	0.6(Typ)	50	0.02	5.0	10
FRICM-5040-351	350 (Typ)	1.1(Typ)	50	0.04	2.0	10
FRICM-5040-501	500 (Typ)	2.3(Typ)	50	0.23	1.0	10
FRICM-5040-102	1000 (Typ)	3.7(Typ)	50	0.06	1.5	10
FRICM-5040-152	1500 (Typ)	5.6(Typ)	50	0.10	1.0	10
FRICM-5040-302	3000 (Typ)	8.0(Typ)	50	0.20	0.5	10
FRICM-5040-402	4000 (Typ)	1.8(Typ)	50	0.30	0.2	10

注明：
1.IDC : ΔT=40℃ Typ.
2.I.R : 50V(DC)/0.5S,串联测试.

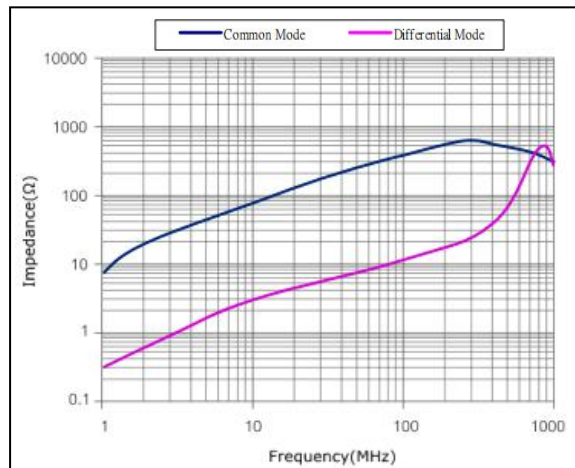
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七.特征曲线/CHARACTERISTICS(REFERENCE)

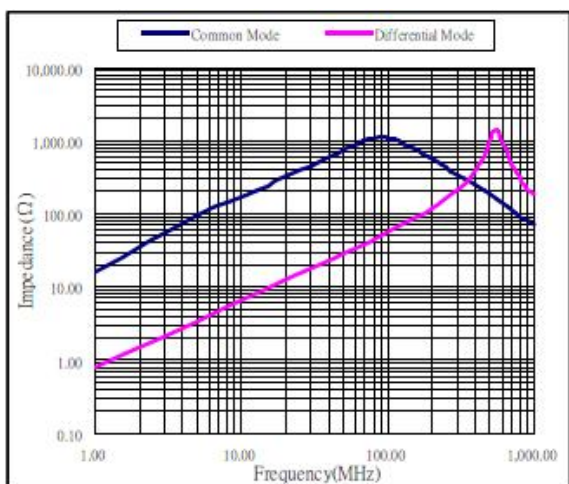
FRICM-5040-191



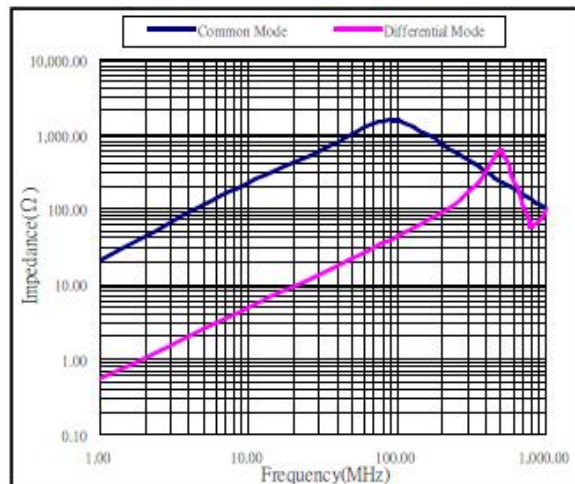
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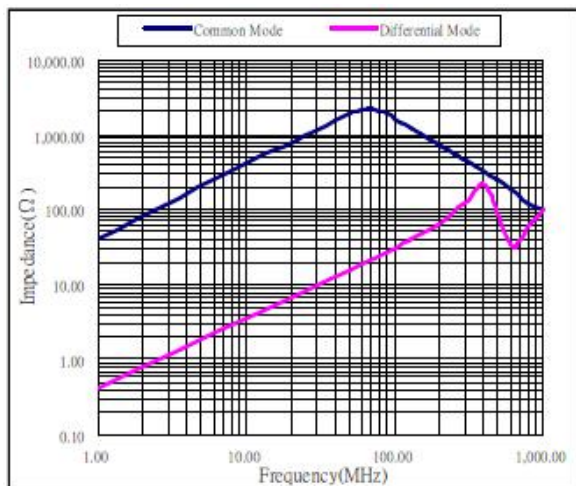
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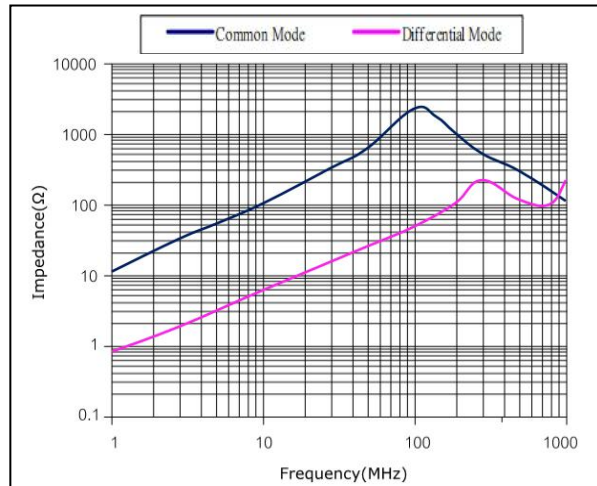
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FRICM-5040-302

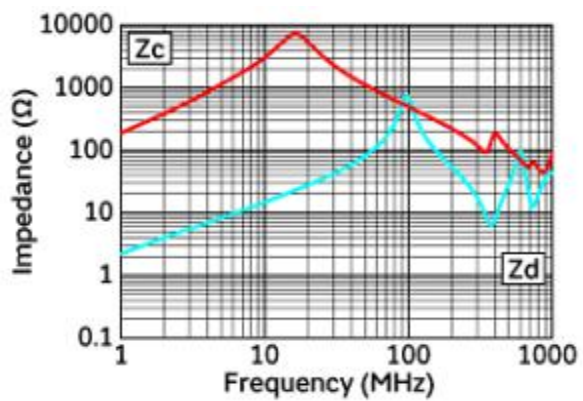


FRICM-5040-402



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FRICM-5040-501

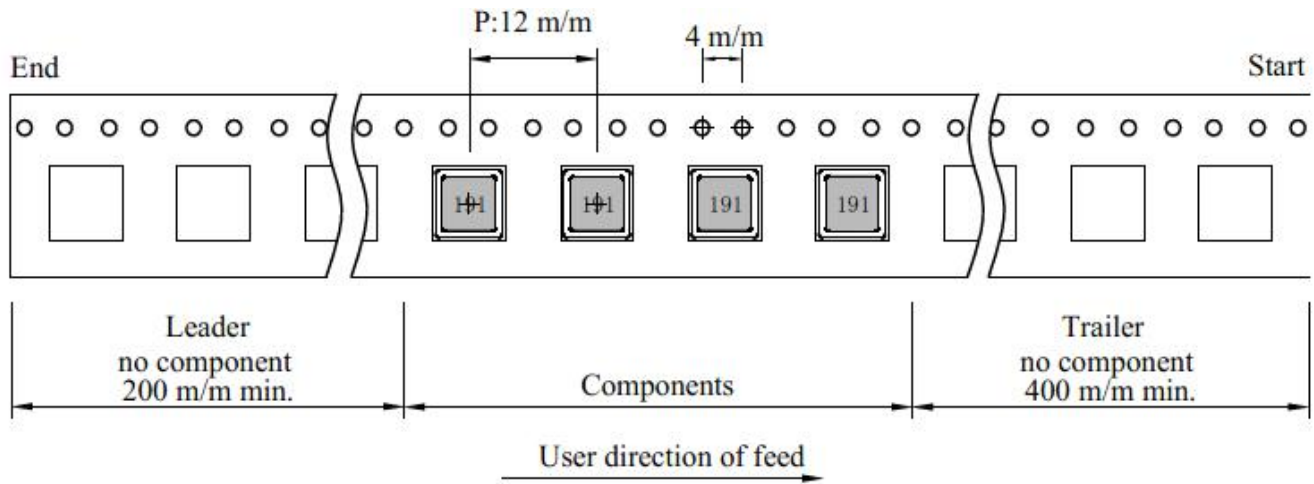


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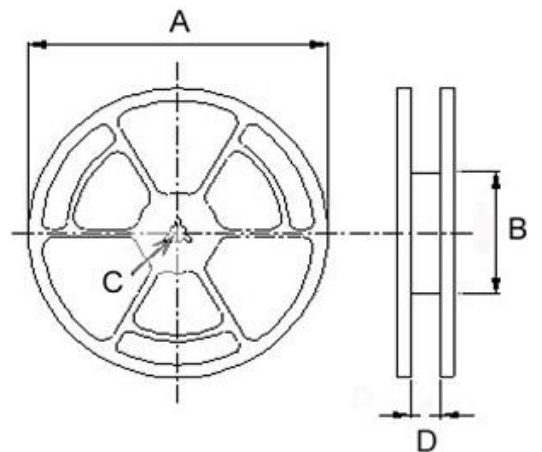
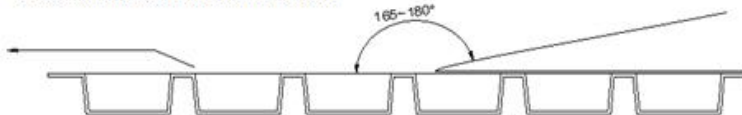
五.材料清单/MATERIAL LIST

NO.	ITEM	DESCRIPTION	SUPPLIER
1	CORE	FERRITE	FENGYIN OR EQ
2	WIRE	P180 Grd1	ELEKTRISOLA OR EQ
3	ADHESIVE	EPOXY RESIN	NAGASE OR EQ
4	SOLDER	Sn99.3:Cu0.7	SHENMAO OR EQ
5	INK	BLACK	BON MARQUE OR EQ

六.编带规格/TAPING SPECIFICATIONS



Adhesive strength of cover tape is 20 to 120 gf
The conduction band direction

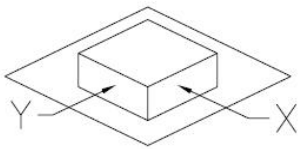


Reel Dimensions (Unit: mm)				Quantity
A	B	C	D	Pcs/Reel
330	100	13	16.5	1000

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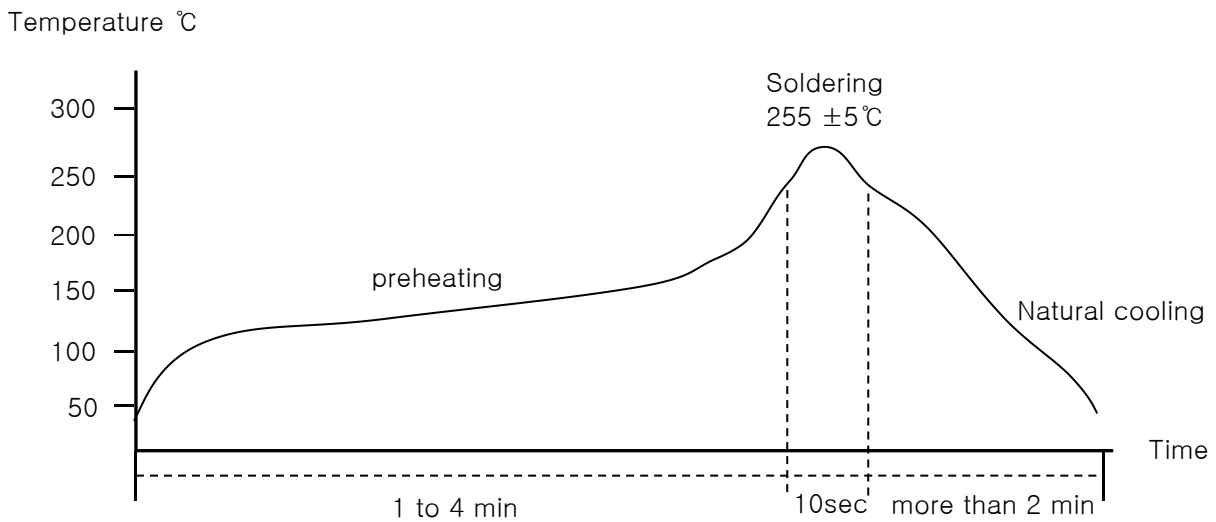
七.可靠性测试/RELIABILITY TESTING

Operating Temperature	- 40 to +105 °C (Contain Heating coil)
Appearance Inspection	No external defects by visual inspection
Terminal Strength	After soldering , between copper plaet and terminals of coils , push in two directions of X , Y with standing 10N(1.02kg) for10+/-2 sec. Terminal should not peel off. (Refer to figure at right)
Heat endurance of reflow soldering	Refer to figure
Insulating resistance	Over 100 MΩ at 100V D.C . between wire and core
Dielectric Strength	Apply at 0.5KV 3mA for 1 minute between wire and core
Temperature characteristics	Inductance coefficient (0~2,000) × 10 / °C (- 40~ + 105 °C)
Humidity characteristics	Inductance deviation within ± 10% , after 96 hours in 90~95% relative humidity at 40 ± 2 °C and 1 hours drying under normal condition



A test is made under the above mentioned condition , and it is kept for 2 hours in the normal

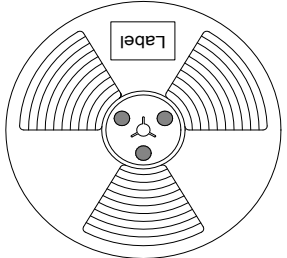
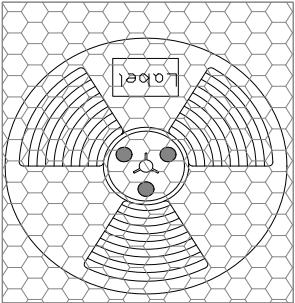
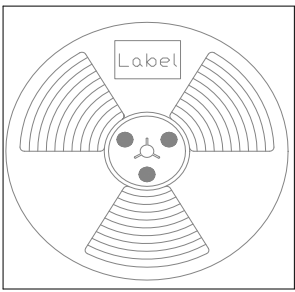
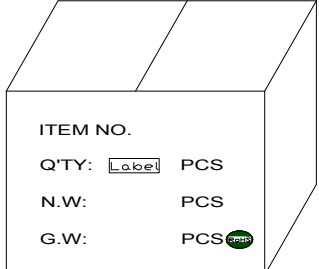
IR Reflow profile



Temperature and humidity . After that , no mechanical and electrical defect should be found .

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八.包装方式/PACKING LIST

	<p>1、轮盘规格：13(直径330mm) 数量：1000PCS/盘</p>
	<p>2、数量：1000PCS/袋.</p>
	<p>3、数量：3000PCS/盒</p>
	<p>4、数量：15000PCS/箱. 作业说明：当尾数箱不足一整箱时需用内盒或填充物装满.</p>