东莞市振宝佳电子有限公司

Dongguan Zhenbaojia Electronics Co., Ltd

承认书

APPROVAL SHEET

客 户 (Client)		品 名 (Description)	共模电感
型 号 (YZX P/N)	ZBJGM1513F	版 本 (Rev.NO)	A/0
承认书编号 (Admission number)	ZBJA20241010-339	发行日期 (RELEASE DATA)	2024/10/24

确认签核(supplierApproved)		
APPROVEDBY	CHECKEDBY	PREPAREDBY
ChenJinLai	HongRui	XieBin

客户承认栏(请签名盖章并签署日期后回传		
Customer ’ s Approval Chop 客户承认盖章	Approved By 承认人	Approved Date 承认日期

目 录 Catalogue

封面 Cover

变更履历 Change resume

实物照片 Physical photos

外形尺寸及推荐焊盘 External Dimensions & PCB Pattern

原理图 Schematic

参考基板尺寸 Reference land pattern (mm)

材料清单 Material list

电气特性 Electrical Characteristic

阻抗值 VS 频率曲线 Impedance vs Frequency Curve

回流焊曲线图 Reflow diagram

包装规格 Packing Specification

产品声明 Legal Disclaimer Notice

变更履历 Change resume

序号	变更内容说明	版 本	修改人	日 期	备 注
1	新制定	A/0		2024年10月24日	
2					
3					
4					
5					
6					
7					
8					
9					
10					

	Part NO	DESCRIPTION	DATE	Pagination
	ZBJGM1513F	共模电感	2024/10/24	1/13

Common Mode Line Filt ZBJGM Series





Product Identification:

ZBJGM 4520 F - 900

(1) (2) (3) (4)

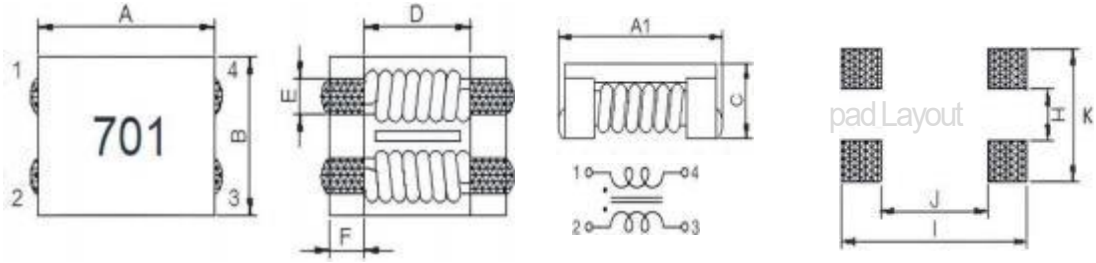
(1) Series

(2) Dimensions(L*H*W)

(3) Type

(4) Impedance(900=90Ω, 901=900Ω, 902=9000Ω)

DIMENSIONS DRAWING:



	Shape and Dimensions							Recommended Pattern			
TYPE	A(mm)	A1(MM)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	K(mm)	H(mm)	I(mm)	J(mm)
ZBJGM4520F	4.7±0.5	5.2±0.5	4.5±0.5	2.2Max	2.7Typ	0.8Typ	1.0Typ	3.0Typ	1.0Typ	6.0Typ	2.0Typ
ZBJGM7060F	7.0±0.5	7.5±0.5	6.0±0.5	3.8Max	3.5Typ	1.5Typ	1.7Typ	5.0Typ	1.5Typ	8.0Typ	3.0Typ
ZBJGM9070F	9.0±0.5	9.5±0.5	7.0±0.5	4.8Max	5.6Typ	1.5Typ	1.7Typ	5.5Typ	1.5Typ	10.5Typ	5.0Typ
ZBJGM1211F	12.0±0.5	12.5±0.5	10.8±0.5	6.4Max	7.0Typ	2.7Typ	2.5Typ	8.5Typ	2.0Typ	12.5Typ	6.5Typ
ZBJGM1513F	15.0±0.5	15.6±0.5	13.0±0.5	6.6Max	9.4Typ	2.6Typ	2.5Typ	9.5Typ	3.3Typ	16.0Typ	8.8Typ

Common Mode Line Filte ZBJGM4520FSeries

ELECTRICAL CHARACTERISTIC:

Part Number	Impedance (Ω@100MHz)		DCR (mΩ) Max.	Rated Current (A) Max	Rated Volt. (Vdc)Max	IR(MΩ) Min.	MARK
	Min	Typ					
ZBJGM4520F-900	60	90	35	3.2	50	10	900
ZBJGM4520F-151	90	150	40	3.1	50	10	151
ZBJGM4520F-231	180	230	45	3.0	50	10	231
ZBJGM4520F-301	200	300	45	3.0	50	10	301
ZBJGM4520F-401	300	420	50	2.5	50	10	401
ZBJGM4520F-501	350	500	55	2.4	50	10	501
ZBJGM4520F-701	500	700	58	2.2	50	10	701
ZBJGM4520F-901	650	900	60	2.1	50	10	901
ZBJGM4520F-102	800	1000	60	2.1	50	10	102
ZBJGM4520F-122	1000	1200	70	2.0	50	10	122
ZBJGM4520F-142	1200	1400	81	1.9	50	10	142
ZBJGM4520F-202	1800	2000	80	1.5	50	10	202
ZBJGM4520F-302	2500	3000	80	1.0	50	10	302

(1) .Rated Current: Temp. rise 40 °c TYP

(2) .Operating Temperature: -40 °c up to +125℃

Common Mode Line Filte ZBJGM7060FSeries

ELECTRICAL CHARACTERISTIC:

Part Number	Impedance (Ω@100MHz)		DCR (mΩ) Max.	Rated Current (A) Max	Rated Volt. (Vdc)Max	IR (MΩ) Min.	MARK
	Min	Typ					
ZBJGM7060F-400	40	70	5	15.0	125	10	400
ZBJGM7060F-101	100	140	8	9.0	125	10	101
ZBJGM7060F-201	200	250	9	7.0	125	10	201
ZBJGM7060F-301	225	300	10	6.0	125	10	301
ZBJGM7060F-501	300	500	10	5.0	125	10	501
ZBJGM7060F-601	400	600	10	5.0	125	10	601
ZBJGM7060F-701	500	700	15	4.0	125	10	701
ZBJGM7060F-801	500	800	15	4.0	125	10	801
ZBJGM7060F-102	800	1 020	17	3.0	125	10	102
ZBJGM7060F-132	910	1300	21	2.5	125	10	132
ZBJGM7060F-202	1500	2000	50	1.5	125	10	202
ZBJGM7060F-272	2000	2700	63	1.0	125	10	272
ZBJGM7060F-302	2500	3000	75	0.9	125	10	302
ZBJGM7060F-402	3300	4000	100	0.8	125	10	402

Common Mode Line Filte ZBJGM9070F Series

ELECTRICAL CHARACTERISTIC:

Part Number	Impedance (Ω@100MHz)		DCR (mΩ) Max.	Rated Current (A) Max	Rated Volt. (Vdc)Max	IR (MΩ) Min.	MARK
	Min	Typ					
ZBJGM9070F-301	225	300	6	6	80	10	301
ZBJGM9070F-501	375	500	8	5.5	80	10	501
ZBJGM9070F-701	500	700	10	5.0	80	10	701
ZBJGM9070F-102	750	1000	13	4.5	80	10	102
ZBJGM9070F-132	1000	1300	20	4.0	80	10	132
ZBJGM9070F-152	1200	1500	20	4.0	80	10	152
ZBJGM9070F-202	1500	2000	30	3.5	80	10	202
ZBJGM9070F-222	1700	2200	50	3.0	80	10	222
ZBJGM9070F-272	2000	2700	60	2.8	80	10	272
ZBJGM9070F-302	2500	3000	70	2.7	80	10	302
ZBJGM9070F-402	3500	4000	80	2.5	80	10	402

(1）.Rated Current: Temp. rise 40 °c TYP

(2）.Operating Temperature: -40 °c up to +125℃

Common Mode Line Filte ZBJGM1211Series

ELECTRICAL CHARACTERISTIC:

Part Number	Impedance (Ω@100MHz)		DCR (mΩ) Max.	Rated Current (A) Max	Rated Volt. (Vdc)max	IR (MΩ) Min	MARK
	Min	Typ					
ZBJGM1211F-800	80	230	2.0	12.0	125	10	800
ZBJGM1211F-231	80	230	3.0	12.0	125	10	231
ZBJGM1211F-101	100	230	3.0	12.0	125	10	101
ZBJGM1211F-301	175	350	4.0	10.0	125	10	301
ZBJGM1211F-501	300	500	5.0	10.0	125	10	501
ZBJGM1211F-701	500	700	6.0	8.0	125	10	701
ZBJGM1211F-801	600	800	8.0	8.0	125	10	801
ZBJGM1211F-102	750	1000	12.0	6.0	125	10	102
ZBJGM1211F-152	1200	1500	20.0	5.0	125	10	152
ZBJGM1211F-202	1700	2000	25.0	4.0	125	10	202
ZBJGM1211F-222	2200	2500	35.0	3.0	125	10	222
ZBJGM1211F-272	2300	2700	50.0	2.0	125	10	272

Common Mode Line Filte ZBJGM1513FSeries

ELECTRICAL CHARACTERISTIC:

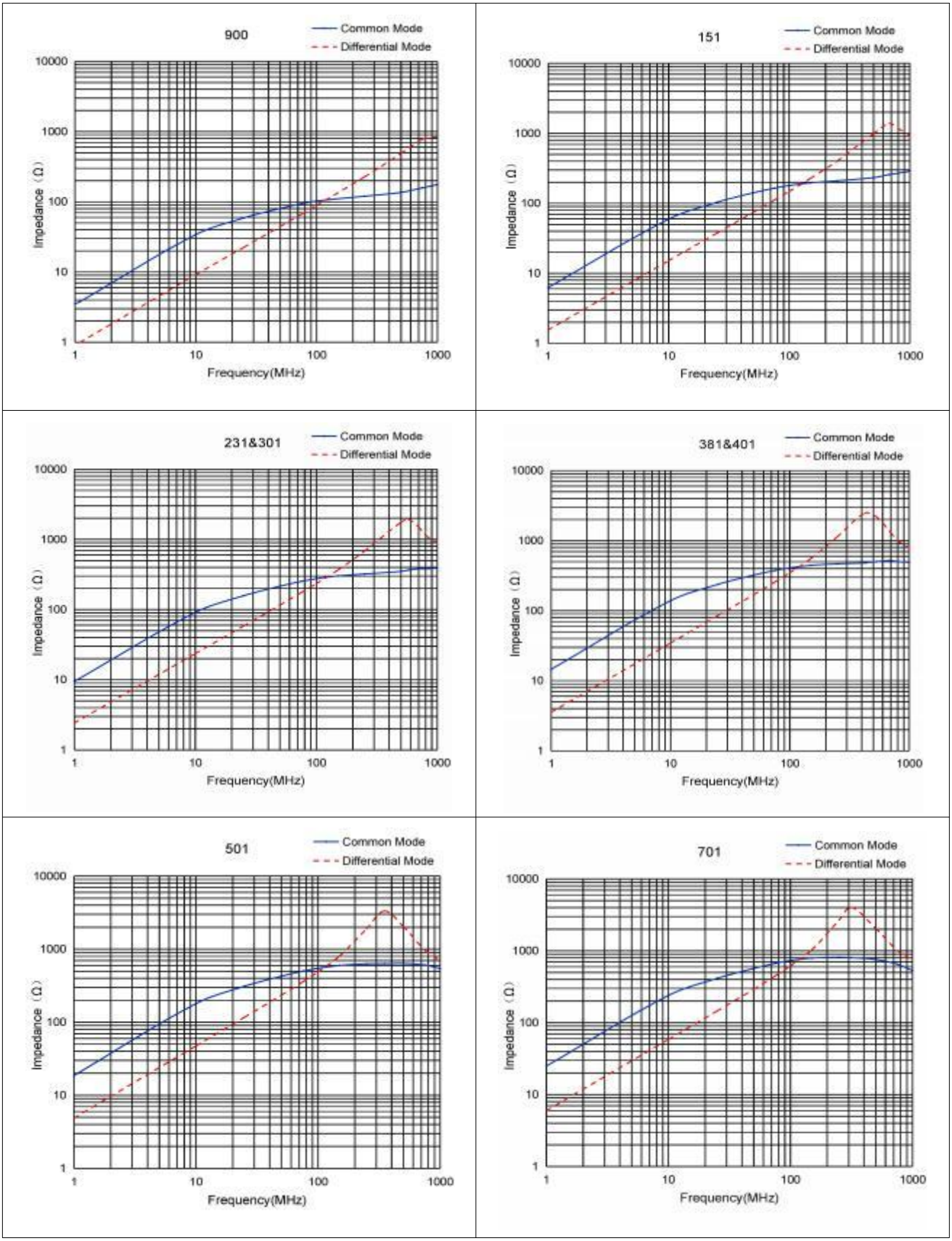
Part Number	Impedance (Ω@100MHz)		DCR (mΩ) Max.	Rated Current (A) Max	Rated Volt. (Vdc)max	IR (MΩ) Min.	MARK
	Min	Typ					
ZBJGM1513F-101	125	200	3.0	13.0	80	10	101
ZBJGM1513F-301	250	300	4.0	13.0	80	10	301
ZBJGM1513F-501	380	500	5.0	12.0	80	10	501
ZBJGM1513F-551	450	550	6.0	10.0	80	10	551
ZBJGM1513F-701	500	700	7.0	10.0	80	10	701
ZBJGM1513F-102	800	1000	12.0	10.0	80	10	102
ZBJGM1513F-152	1200	1500	13.0	10.0	80	10	152
ZBJGM1513F-222	1700	2200	14.0	8.0	80	10	222
ZBJGM1513F-302	1300	3000	17.0	5.0	80	10	302

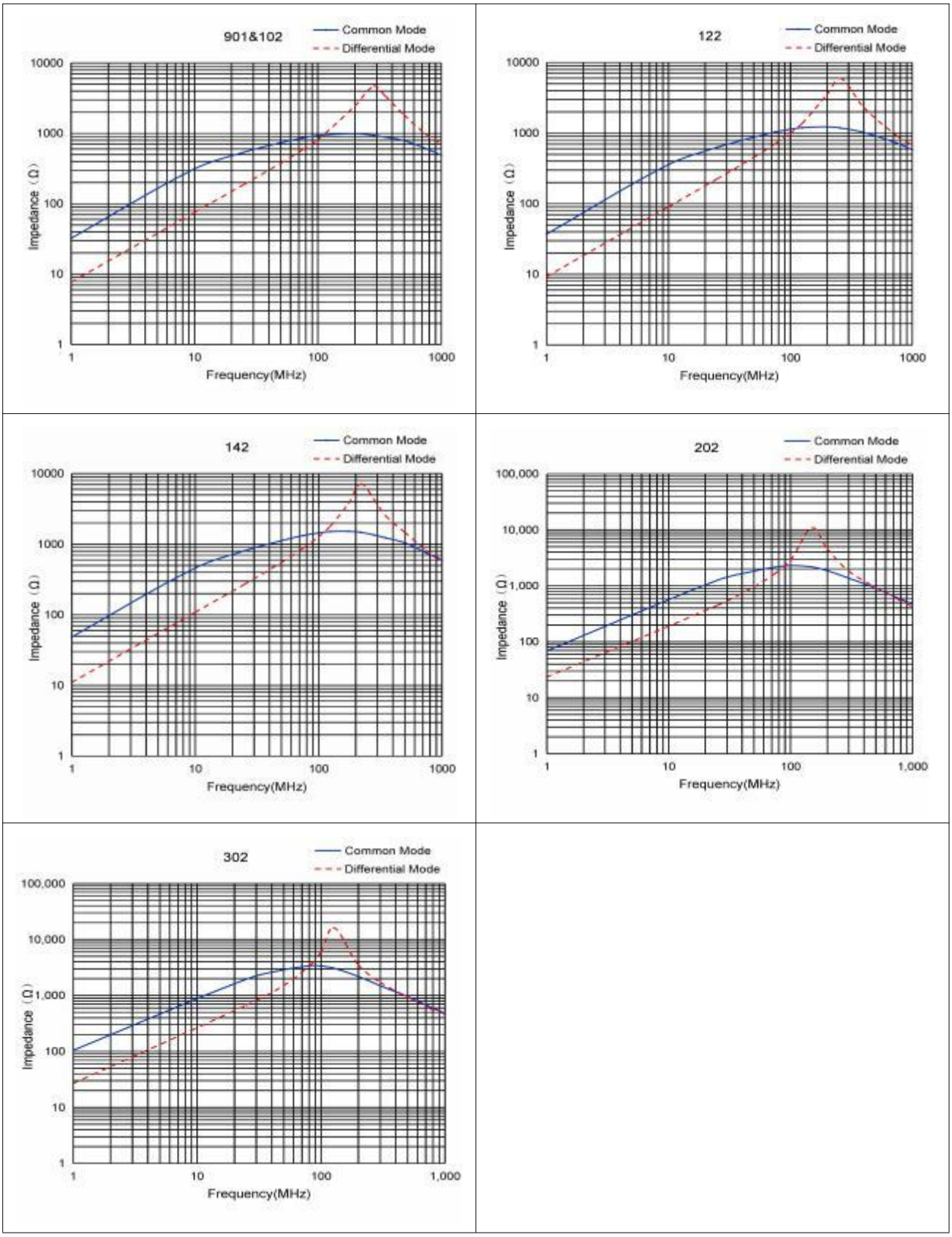
(1）.Rated Current: Temp. rise 40 °c TYP

(2）.Operating Temperature: -40 °c up to +125℃

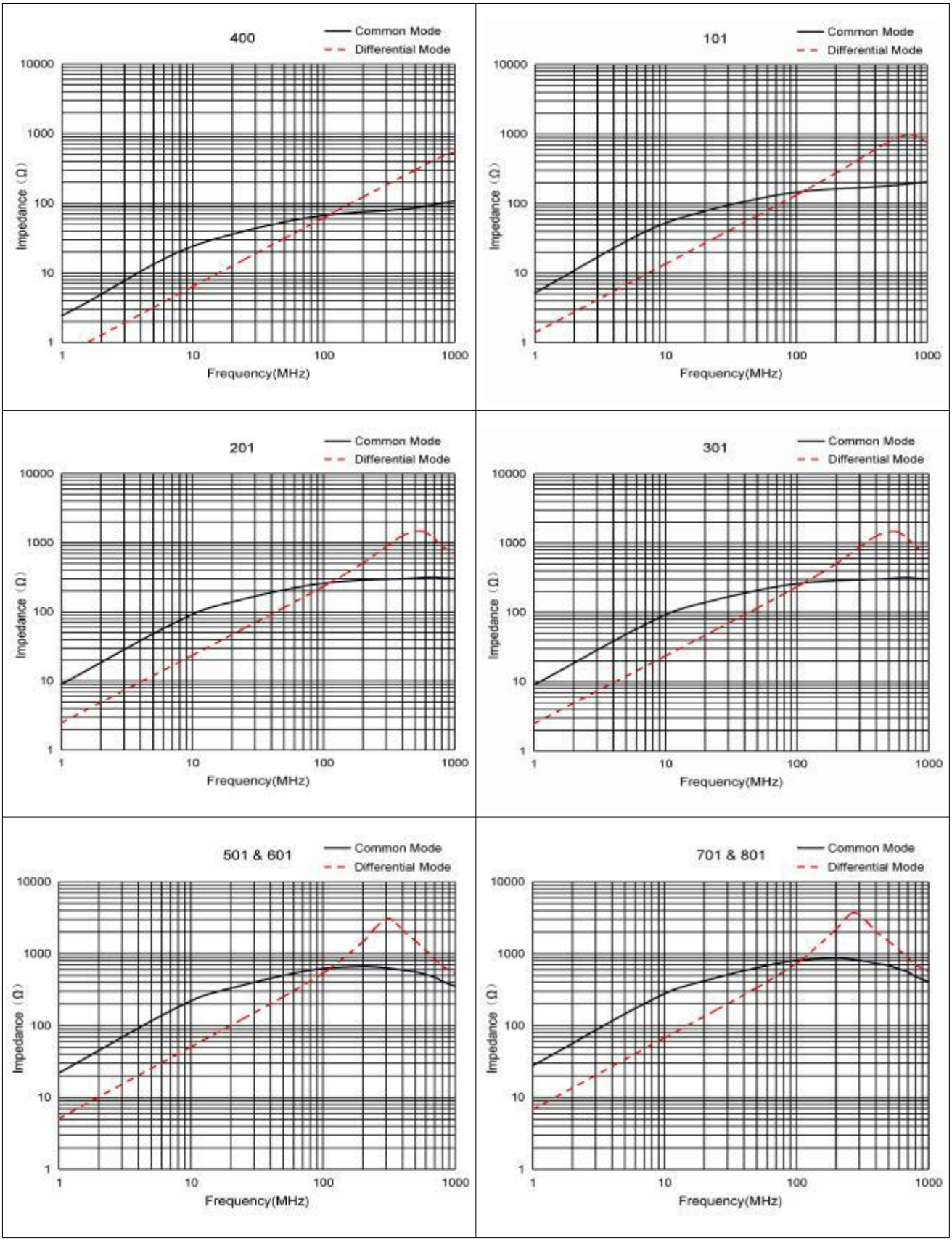
5.Impedance vs Frequency Curve

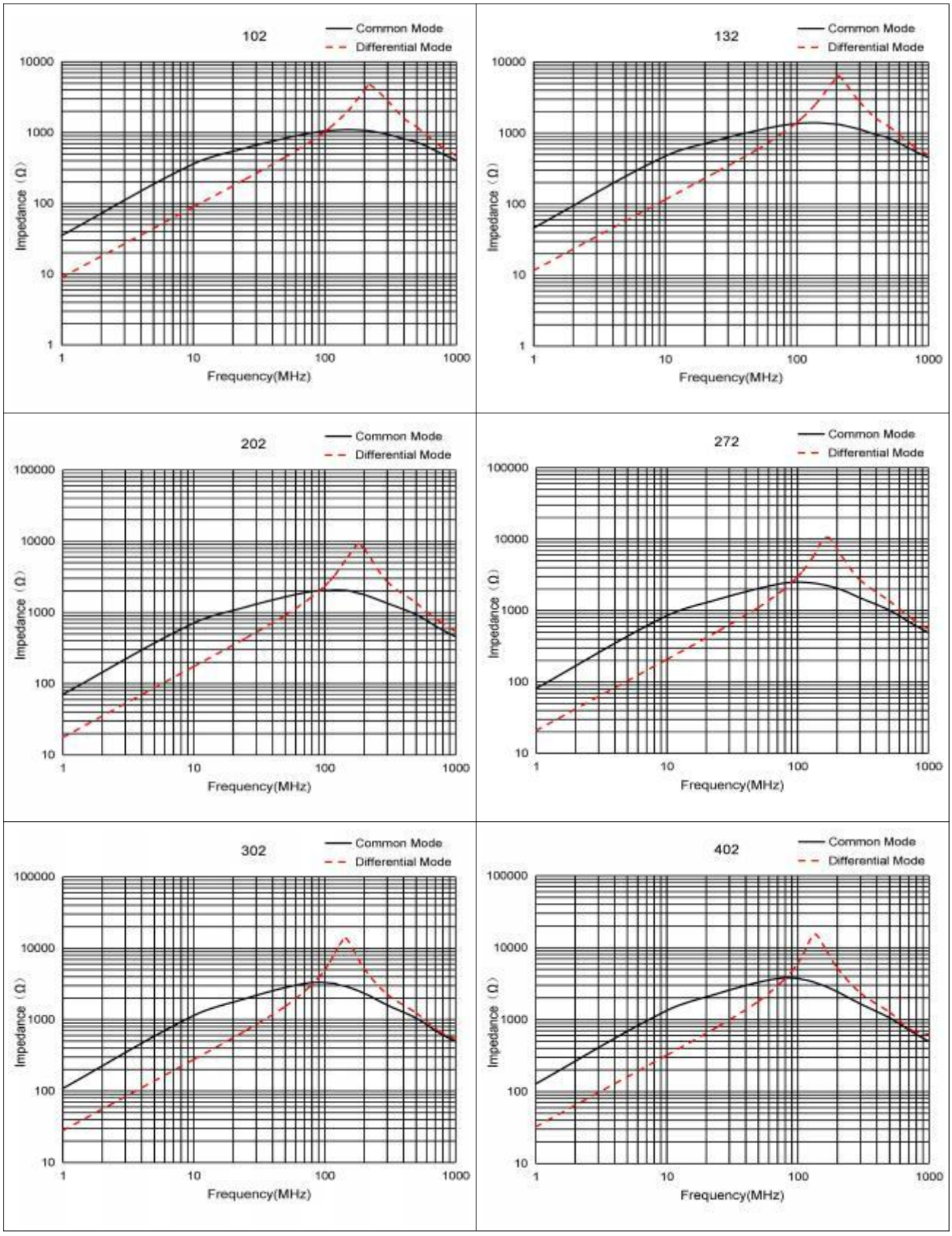
阻抗值 VS 频率曲线



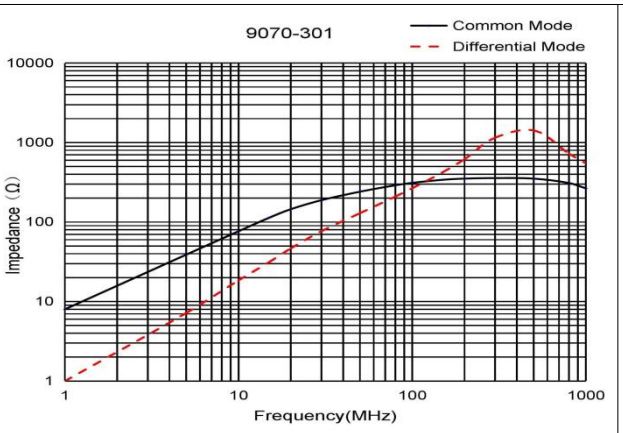

901&102
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
122
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
142
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
202
Common Mode
Differential Mode
Impedance (Ω)
100,000
10,000
1,000
100
10
1
1
10
100
1,000
Frequency(MHz)
302
Common Mode
Differential Mode
Impedance (Ω)
100,000
10,000
1,000
100
10
1
1
10
100
1,000
Frequency(MHz)

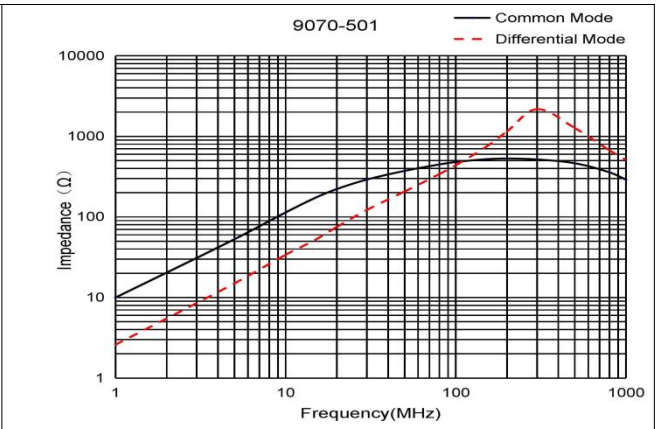
阻抗值 VS 频率曲线

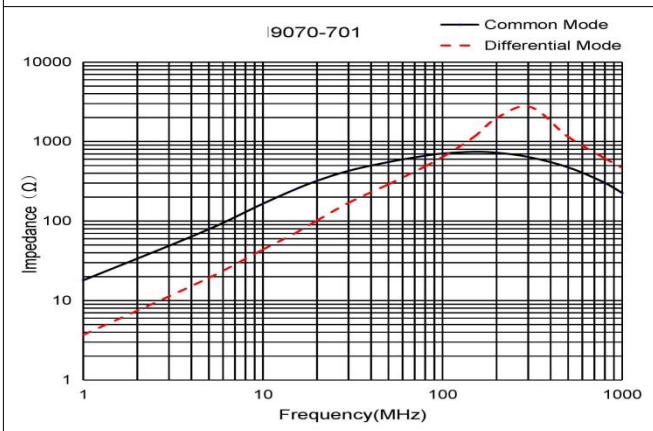

400
101
201
301
501 & 601
701 & 801
Common Mode
Differential Mode
Impedance (Ω)
Frequency(MHz)
10000
1000
100
10
1
1
10
100
1000

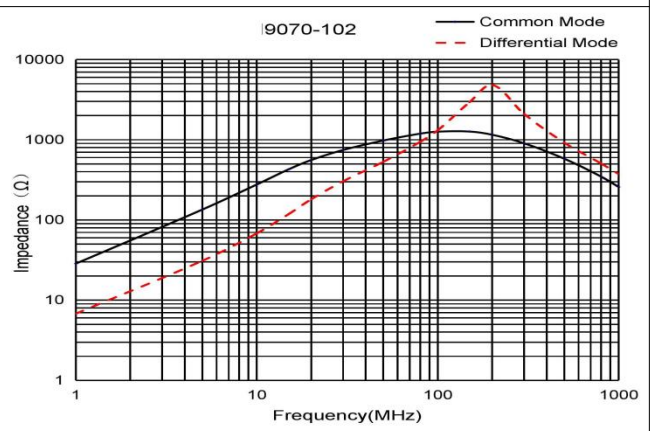

102
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
132
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
202
Common Mode
Differential Mode
Impedance (Ω)
100000
10000
1000
100
10
1
10
100
1000
Frequency(MHz)
272
Common Mode
Differential Mode
Impedance (Ω)
100000
10000
1000
100
10
1
10
100
1000
Frequency(MHz)
302
Common Mode
Differential Mode
Impedance (Ω)
100000
10000
1000
100
10
1
10
100
1000
Frequency(MHz)
402
Common Mode
Differential Mode
Impedance (Ω)
100000
10000
1000
100
10
1
10
100
1000
Frequency(MHz)

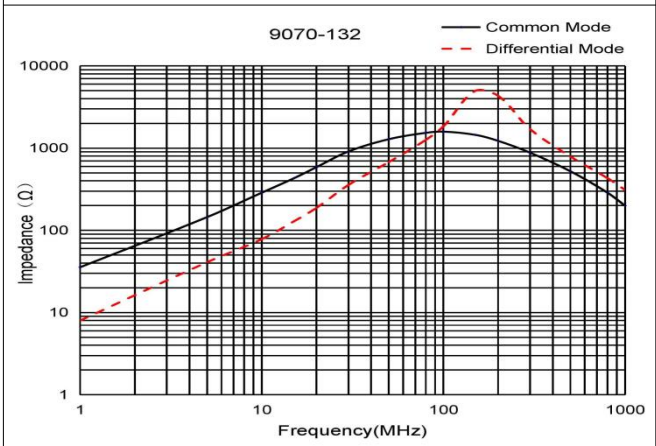
阻抗值 VS 频率曲线

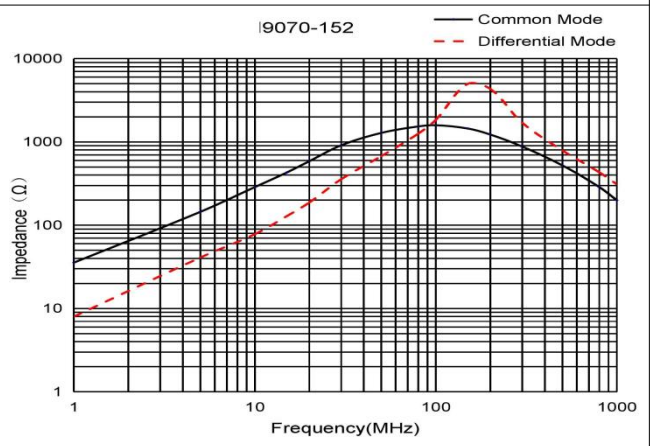

9070-301
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)

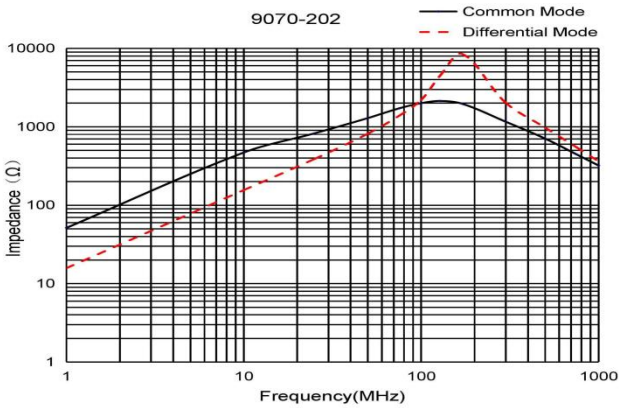

9070-501
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)

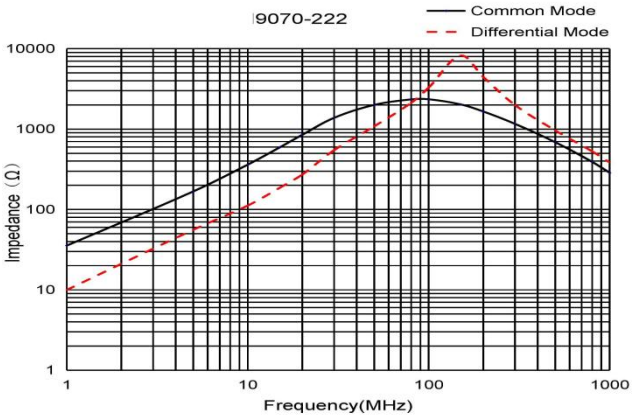

9070-701
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)

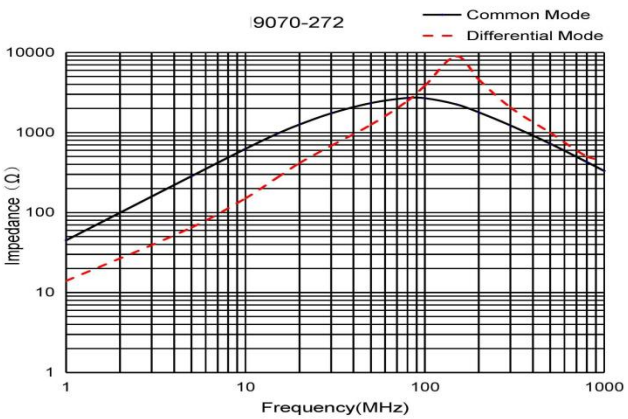

9070-102
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)

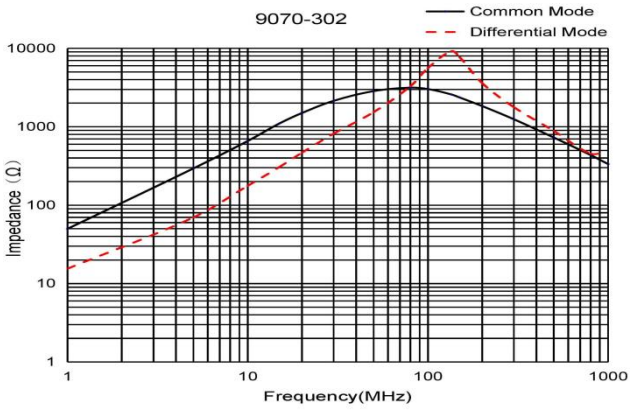

9070-132
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)

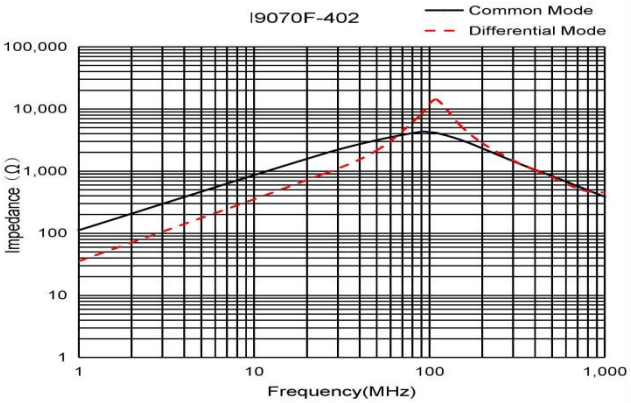

9070-152
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)


9070-202
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)

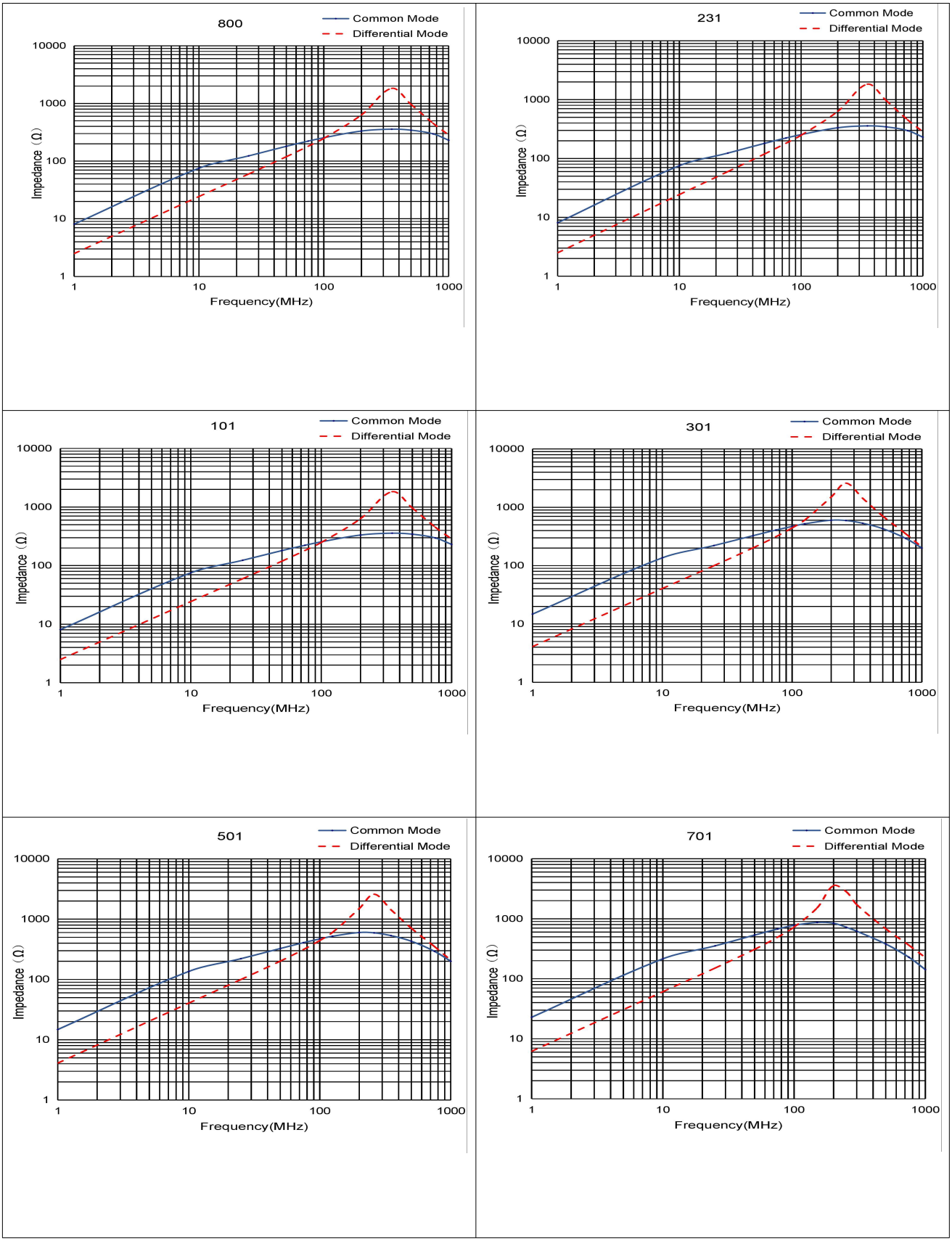

9070-222
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)

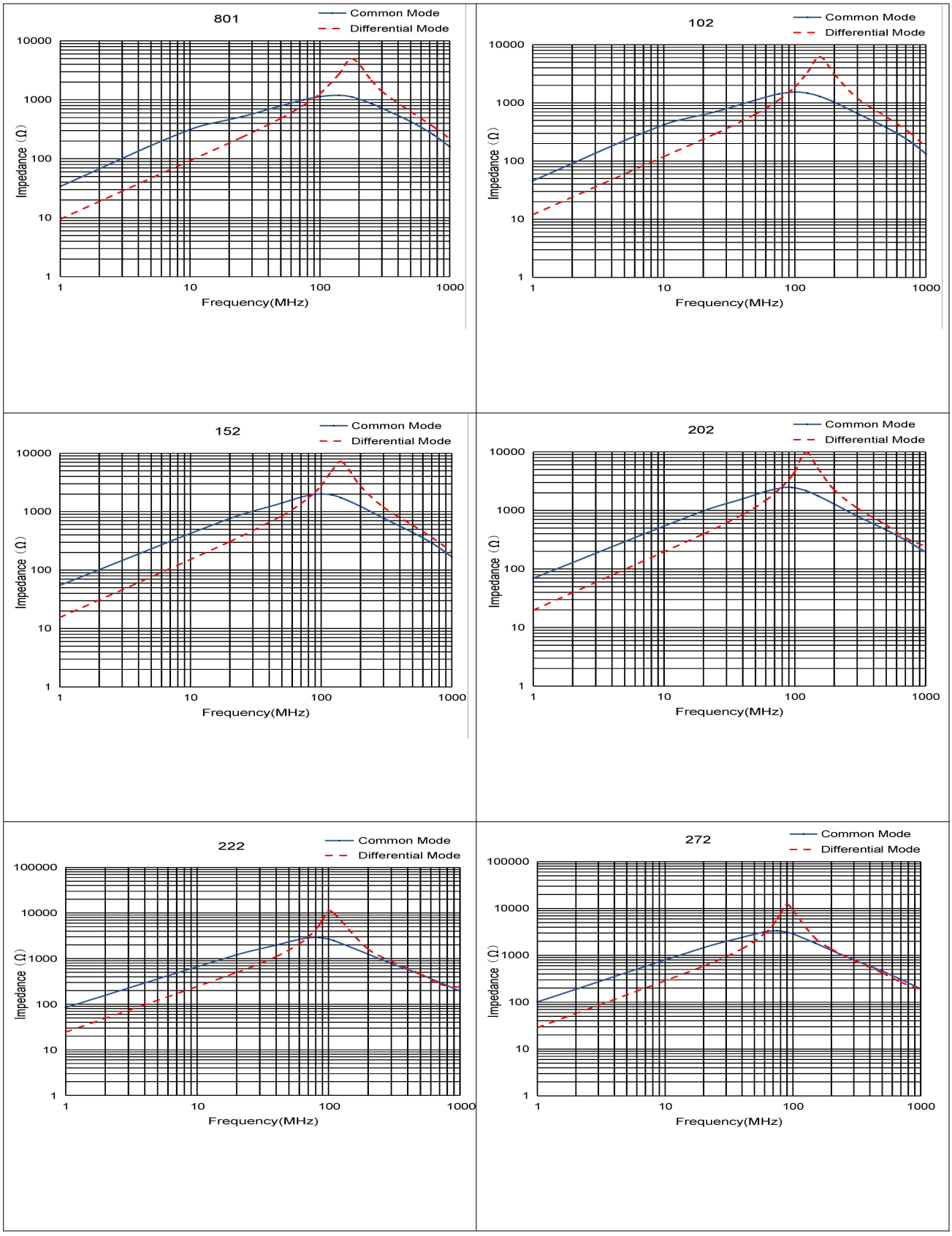

9070-272
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)


9070-302
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)


9070F-402
Common Mode
Differential Mode
Impedance (Ω)
100,000
10,000
1,000
100
10
1
1
10
100
1,000
Frequency(MHz)

阻抗值 VS 频率曲线

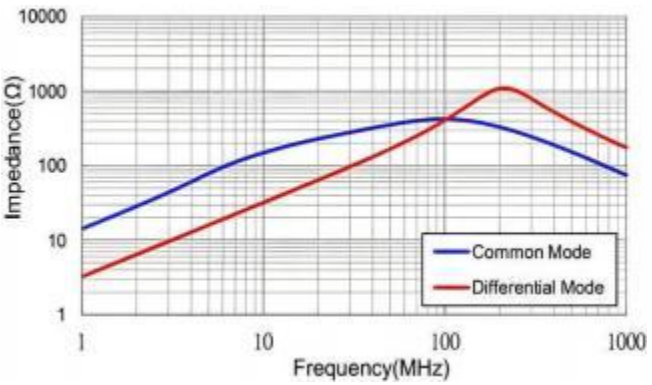

800
231
101
301
501
701
Common Mode
Differential Mode
Impedance (Ω)
Frequency(MHz)
10000
1000
100
10
1
1
10
100
1000


801
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
102
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
152
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
202
Common Mode
Differential Mode
Impedance (Ω)
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
222
Common Mode
Differential Mode
Impedance (Ω)
100000
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)
272
Common Mode
Differential Mode
Impedance (Ω)
100000
10000
1000
100
10
1
1
10
100
1000
Frequency(MHz)

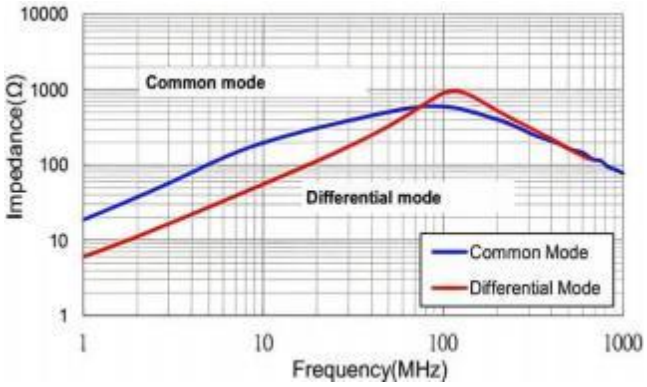
Common Mode Line Filte ZBJGM1513F Series

CHARACTERISTICS(REFERENCE)

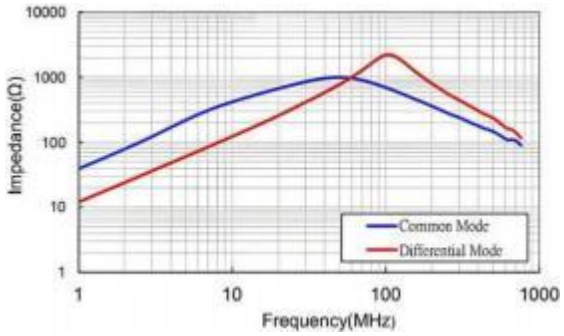
ZBJGM1513CF-301



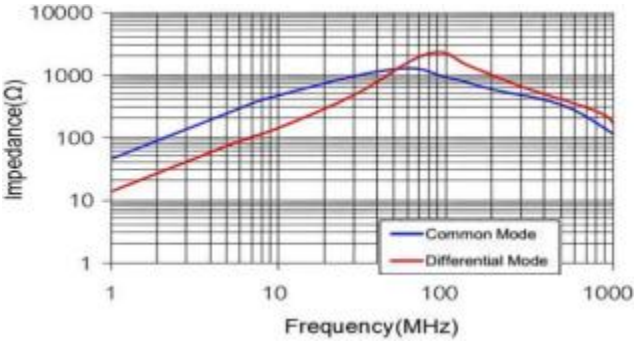
ZBJGM1513CF-551

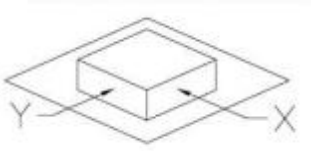


ZBJGM1513CF-601&701

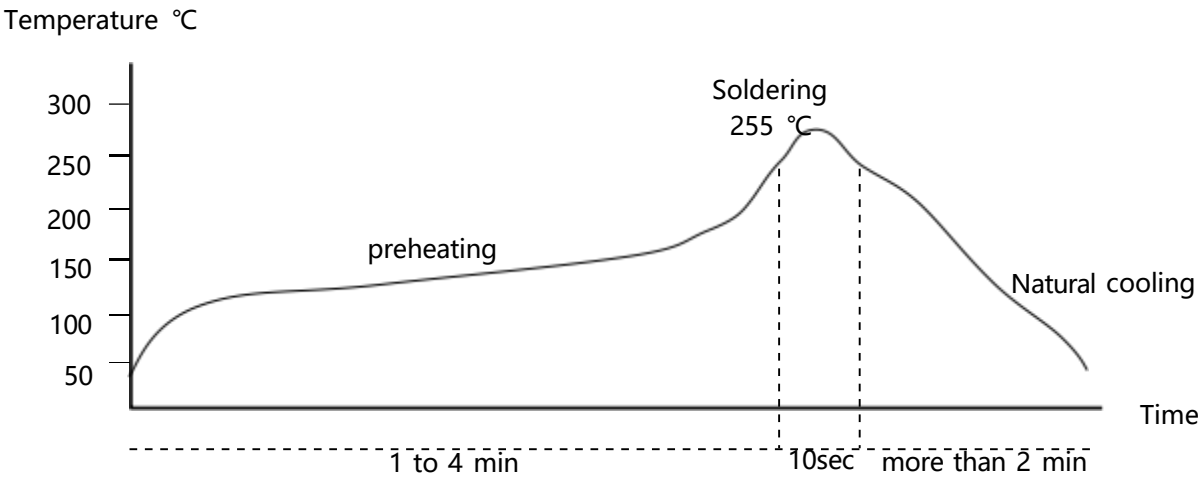


ZBJGM1513CF-102



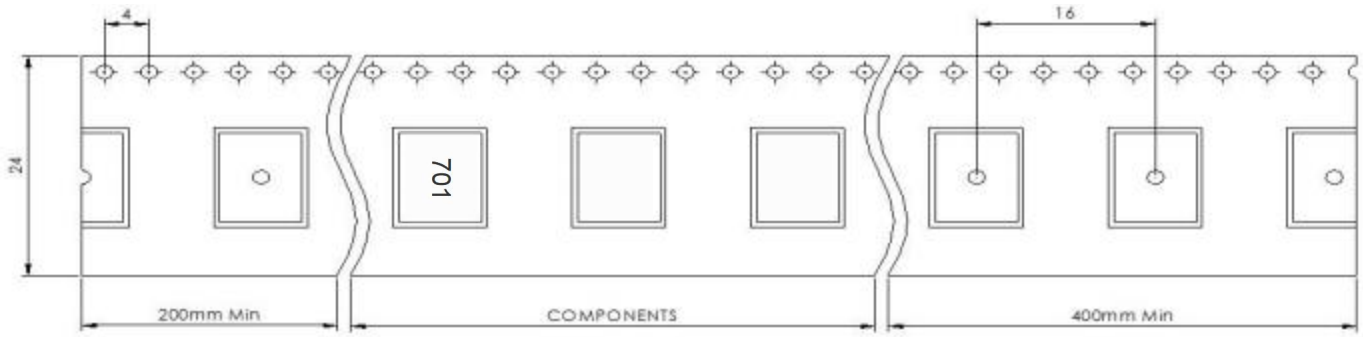
RELIABILITY TESTING	
Operating Temperature	- 40 to +125 ℃ (Contain Heating coil)
Appearance Inspection	No external defects by visual inspection
Terminal Strength 	After soldering , between copper plaet and terminals of coils , push in two directions of X , Y with standing 10N(1.02kg) for10+/-2 sec. Terminal 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 / ℃(- 40~ + 125 ℃)
Humidity characteristics	Inductance deviation within ± 10% , after 96 hours in 90~95% relative humidity at 40 ± 2 ℃ 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	

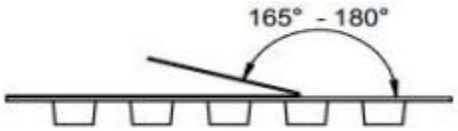
IR Reflow profile



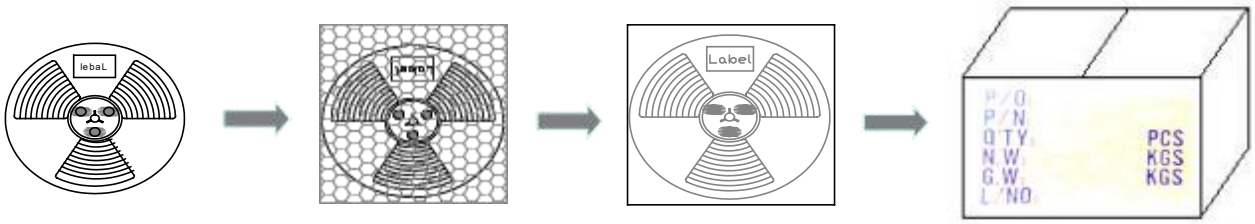
Temperature and humidity . After that , no mechanical and electrical defect should be found .

七.包装规格/PACKING SPECFICATIONS





Tape width	Distance	Pull-of force
24 mm	16 mm	10~120g



轮盘：13’(直径330mm)　　PE袋　　内盒　　外箱，不足整箱用内盒或填充物装满

系列	盘系数	盒系数	箱系数
4520	1000	4000	20000
7060	1500	4500	22500
9070	700	1400	7000
1211	500	1000	5000

4520F系列轮盘直径为178mm
其他系列均为330mm