MULTILAYER FERRITE CHIP BEAD FOR HIGH FREQUENCY

片式铁氧体高频磁珠

PFHB SERIES

深圳嘉嵘伟业电子有限公司

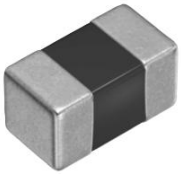
SHENZHEN JIARONG WEIYE ELECTRONICS CO.,LTD.

Tel:0755-2917 5978 FAE:133 7842 9168

Website:www.ransioning.com E-mail:admin@ransioning.com

Multilayer Ferrite Chip Bead for High Frequency-PFHB Series

片式铁氧体高频磁珠-PFHB 系列



INTRODUCTION AND CHARACTERISTICS 产品介绍及特性

INTRODUCTION	产品介绍
◆A ferrite bead is a passive electric component that suppresses high frequency noise in electronic circuits. It is a specific type of electronic choke. Ferrite beads employ the dissipation of high frequency currents in a ferrite ceramic to build high frequency noise suppression devices. PFHB series is endowed with perfect for EMI suppression at high frequency(≧1GHz).	◆磁珠是一种被动元件，用来抑制电路中的高频噪声。磁珠是一种特别的扼流圈，其成份多半为铁氧体，利用其高频电流产生的热耗散来抑制高频噪声。PFHB 系列对高频(≧1GHz)段噪声具有优良的 EMI 抑制效果。

CHARACTERISTICS	特性
◆Monolith structure for high reliability	◆积层独石结构、高可靠性
◆Under the same size the multilayer chip beads produce higher impedance than plug-in beads	◆在同样的尺寸下较插装磁珠有更高的阻抗值
◆No cross coupling due to magnetic shield	◆良好的磁屏蔽，无交叉耦合
◆Perfect shape for mounting with no directionality	◆无引线结构，适合表面安装
◆Excellent solderability and high heat resistance or reflow soldering or wave soldering	◆良好的焊接性，适合于回流焊或波峰焊

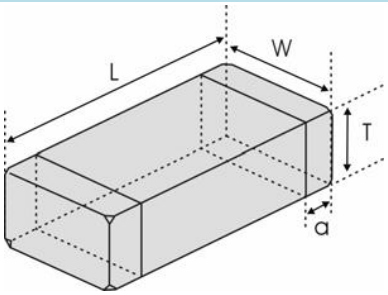
APPLICATIONS	应用产品
◆Mother board,tablet PC,notebook,desktop computers and peripheral equipment	◆主机板，平板电脑，笔记型，桌上型电脑及其周边设备
◆DSC,DVC,LCD Television,Set Top Box	◆数位相机，数位摄影机，液晶电视机，数位机上盒
◆Mobile phone,smart phone,PHD	◆行动电话，智能手机，个人导航设备
◆Redialed noise suppression on digital product clock lines signal lines and suppression noise on circuit	◆用于数据传输线、信号线。电源及回路部分的抗干扰

PRODUCT IDENTIFICATION 产品型号

PFHB	2012	P	601	T
①	②	③	④	⑤

①Product Series Code 产品系列码	PFHB	Multilayer Ferrite Chip Bead for High Frequency 片式铁氧体高频磁珠
②Size Code 尺寸码	2012	长×宽（L×W）（mm） 2.0×1.2
③Material Code 材质代号	--	P M S
④Nominal Impedance 阻抗	600	60Ω
	601	600Ω
⑤Packing 包装形式	T	Tape and Reel 编带

SHAPE AND DIMENSIONS 外观尺寸



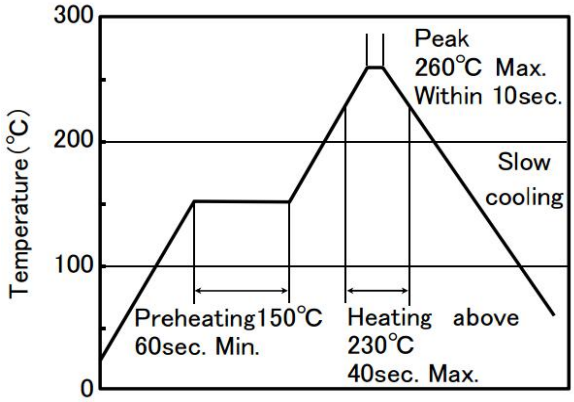
SIZE 尺寸	L 长 mm	W 宽 mm	T 厚 mm	a 银厚 mm
1005(0402)	1.0±0.15	0.5±0.15	0.5±0.15	0.15~0.35
1608(0603)	1.6±0.15	0.8±0.15	0.8±0.15	0.1~0.5
2012(0805)	2.0±0.2	1.2±0.2	0.85±0.2	0.2~0.8
3216(1206)	3.2±0.2	1.6±0.2	0.85±0.2	0.2~0.8

STORAGE AND OPERATING CONDITIONS 储存及操作条件

Operating Temperature Range	-55℃~+125℃
Storage Temperature and Humidity Range	－10℃~＋40℃,70%RH max.

RECOMMENDED SOLDERING CONDITION 建议焊锡方式

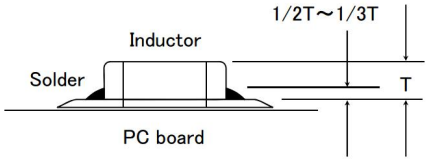
REFLOW SOLDERING 回流焊



① Ceramic chip components should be preheated to within 100 to 130℃ of the soldering.
② Assured to be reflow soldering for 2 times.

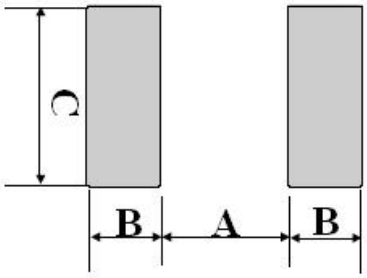
Caution:

1)The ideal condition is to have solder mass（fillet）controlled to 1/2 to 1/3 of the thickness of the inductor.



2)Because excessive dwell times can detrimentally affect solderability, soldering duration should be kept as close to recommended times as possible.

RECOMMENDED LAND PATTERN 推荐的焊盘尺寸

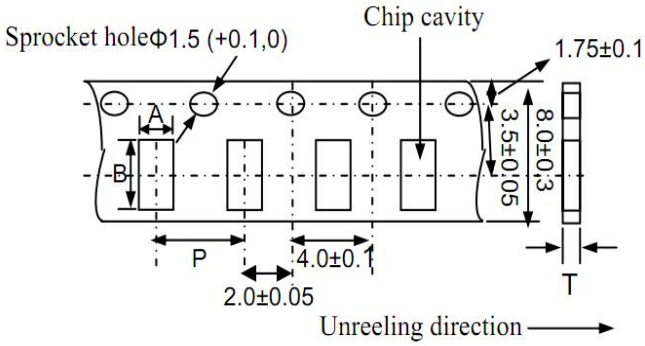


Dimension（mm）	A (mm)	B (mm)	C (mm)
1005	0.45~0.55	0.40~0.50	0.45~0.55
1608	0.6~0.8	0.6~0.8	0.6~0.8
2012	0.8~1.2	0.8~1.2	0.9~1.6
3216	1.8~2.5	1.0~1.5	1.2~2.0

PACKING STANDARD 包装标准

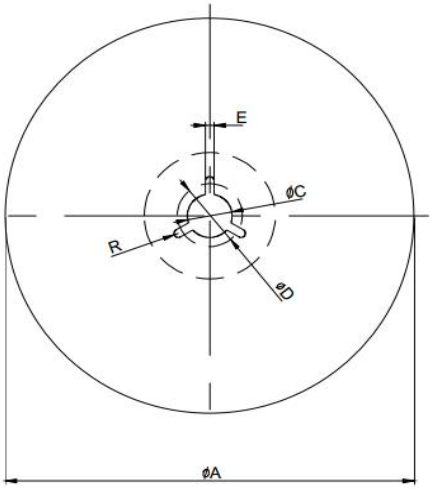
Taping Dimensions

◆Paper tape (8mm wide)



Type	Chip Thickness	A	B	P	T max.	Quantity (pcs/reel)
	(mm)					ø178mm Reel
PFHB1005	0.50	0.65	1.15	2	0.80	10000
PFHB1608	0.80	1.00	1.80	4	1.10	4000
PFHB2012	0.85	1.50	2.30	4	1.10	4000
PFHB3216	0.85	1.90	3.50	4	1.10	4000

◆Reel Dimensions



Symbol	ø178mm Reel	Ø330mm Reel
A	Ø178±2	Ø330±2
B	Ø60±2	Ø100±2
C	Ø13±0.8	Ø13±0.8
D	Ø21±0.8	Ø21±0.8
E	2	2
W8	10±1.5	10±1.5
W12	14.5±1.5	14.5±1.5
W16	--	17.4(Typ.)
W24	--	24.4(Typ.)
T	2±0.5	2±0.5
R	1	1

SPECIFICATIONS 规格特性

PFHB 1005(0402) TYPE

Part Number 型号	Impedance At 100MHz 阻抗 Z	Impedance At 1GHz 阻抗 Z	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir	Thickness 厚度
Units 单位	Ω ±25%	Ω ±40%	Ω (Max.)	mA (Max.)	mm
PFHB1005M181T	180	400	1.00	100	0.5±0.15
PFHB1005M301T	300	600	1.10	100	0.5±0.15
PFHB1005M471T	470	900	1.30	100	0.5±0.15
PFHB1005M601T	600	1100	0.85	300	0.5±0.15
PFHB1005M102T	1000	1200	1.25	250	0.5±0.15
PFHB1005M152T	1500	1400	2.20	50	0.5±0.15
PFHB1005M182T	1800	1620	2.20	200	0.5±0.15
PFHB1005P601T	600	600	0.70	300	0.5±0.15
PFHB1005P102T	1000	900	1.10	250	0.5±0.15

PFHB 1608(0603) TYPE

Part Number 型号	Impedance At 100MHz 阻抗 Z	Impedance At 1GHz 阻抗 Z	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir	Thickness 厚度
Units 单位	Ω ±25%	Ω ±40%	Ω (Max.)	mA (Max.)	mm
PFHB1608M471T	470	700	1.20	100	0.8±0.15
PFHB1608M601T	600	850	1.50	100	0.8±0.15
PFHB1608M102T	1000	1100	1.80	50	0.8±0.15
PFHB1608P181T	180	180	0.55	200	0.8±0.15
PFHB1608P301T	300	3000	0.75	200	0.8±0.15
PFHB1608P471T	470	400	0.85	200	0.8±0.15
PFHB1608P601T	600	450	1.00	200	0.8±0.15
PFHB1608P102T	1000	750	1.60	100	0.8±0.15

PFHB 2012(0805) TYPE

Part Number 型号	Impedance At 100MHz 阻抗 Z	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir	Thickness 厚度
Units 单位	Ω ±25%	Ω (Max.)	mA (Max.)	mm
PFHB2012P800T	80	0.15	400	0.85±0.2
PFHB2012P121T	120	0.15	400	0.85±0.2
PFHB2012P151T	150	0.20	400	0.85±0.2
PFHB2012P221T	220	0.20	400	0.85±0.2
PFHB2012P301T	300	0.25	400	0.85±0.2
PFHB2012P501T	500	0.30	200	0.85±0.2
PFHB2012P601T	600	0.30	200	0.85±0.2
PFHB2012P801T	800	0.50	180	0.85±0.2
PFHB2012P102T	1000	0.50	180	0.85±0.2

SPECIFICATIONS 规格特性

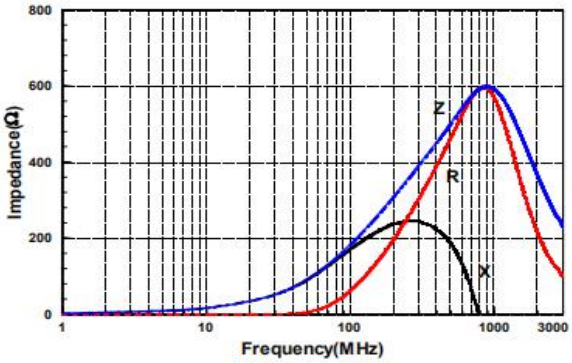
PFHB 3216(1206) TYPE

Part Number 型号	Impedance At 100MHz 阻抗 Z	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir	Thickness 厚度
Units 单位	Ω ±25%	Ω (Max.)	mA (Max.)	mm
PFHB3216P260T	26	0.10	1000	0.85±0.2
PFHB3216P121T	120	0.15	1000	0.85±0.2
PFHB3216P301T	300	0.25	300	0.85±0.2
PFHB3216P501T	500	0.30	200	0.85±0.2
PFHB3216P601T	600	0.35	200	0.85±0.2
PFHB3216P801T	800	0.50	200	0.85±0.2

TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

PFHB1005M181



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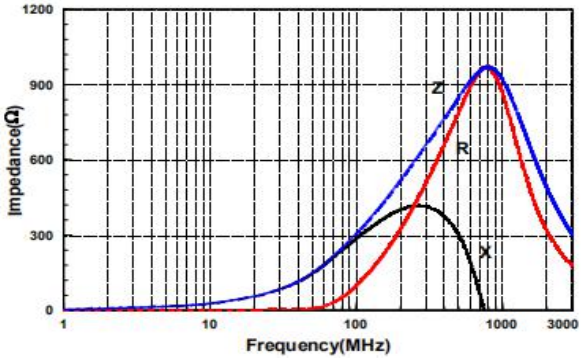

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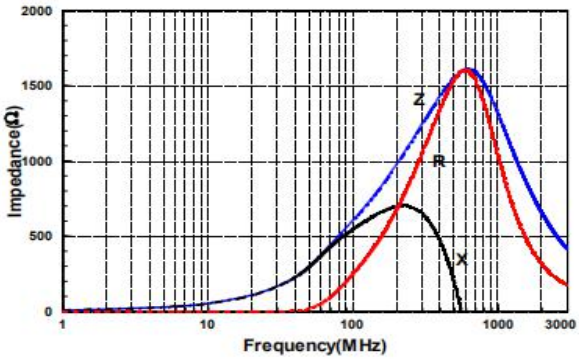

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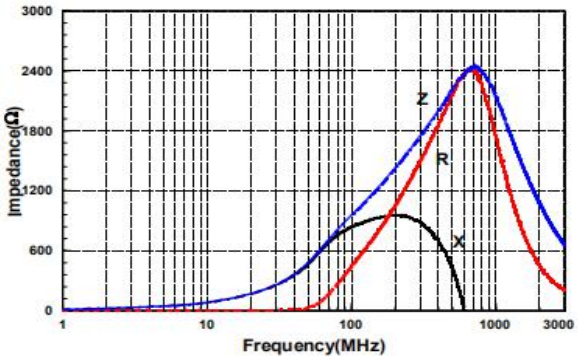

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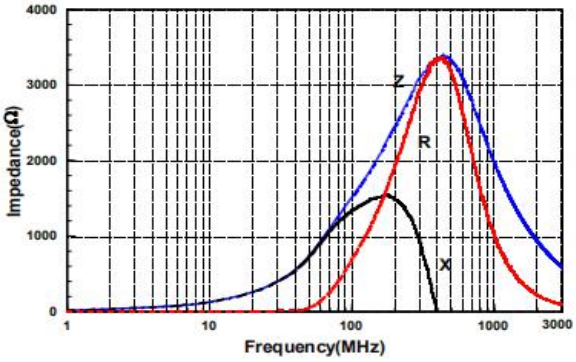

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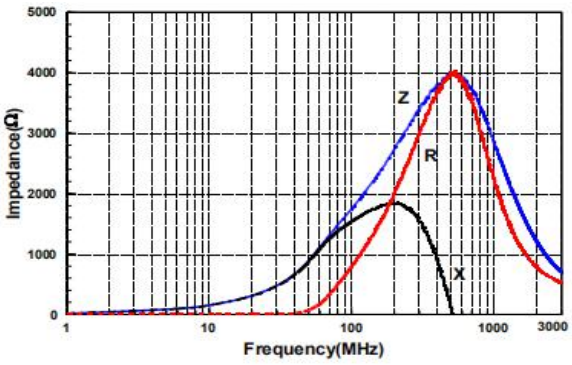

TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

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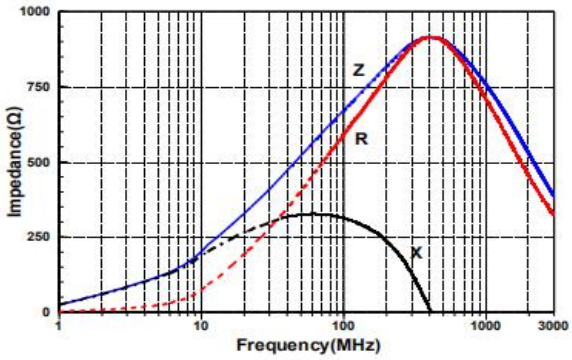

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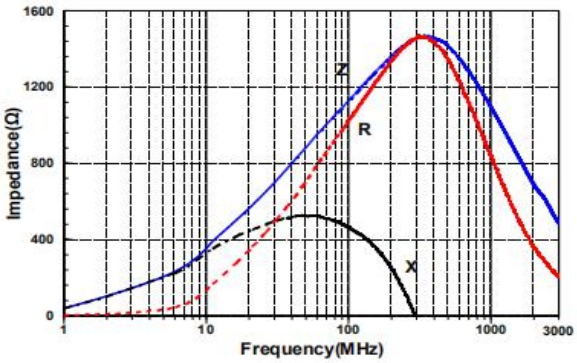

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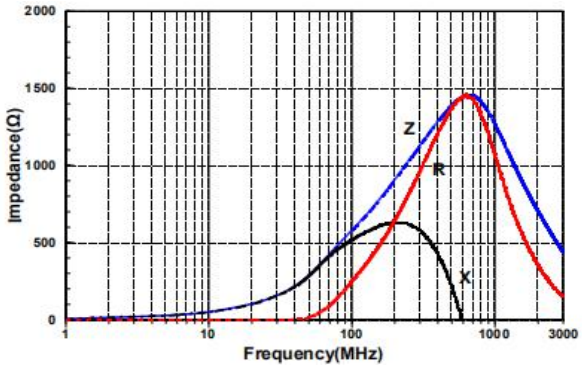

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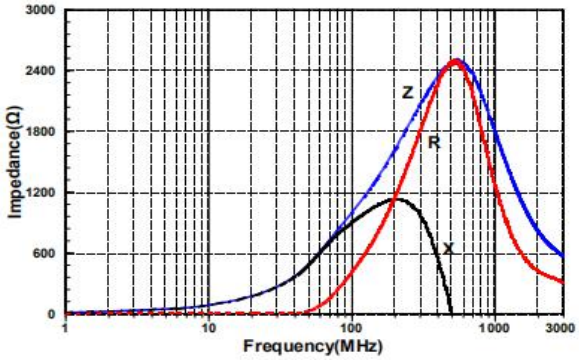

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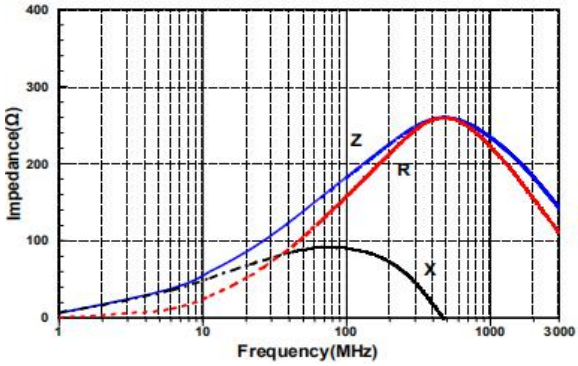

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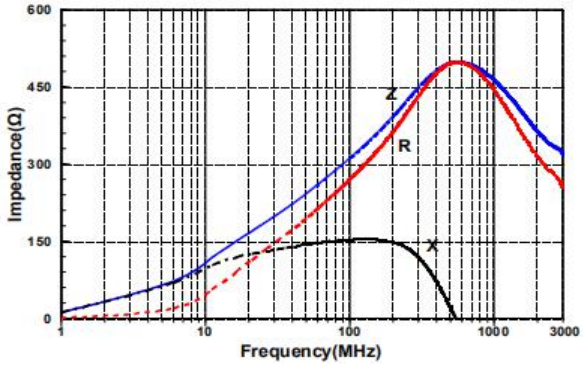

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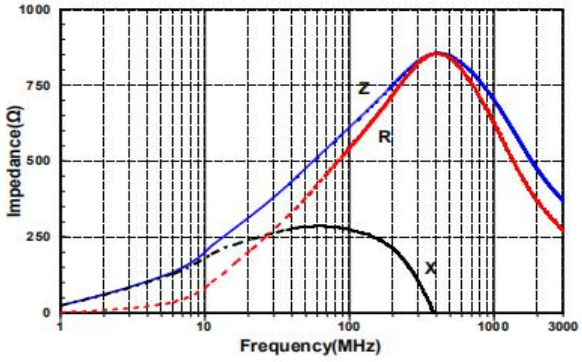

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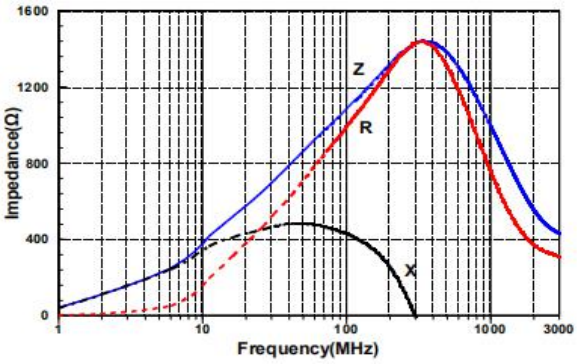
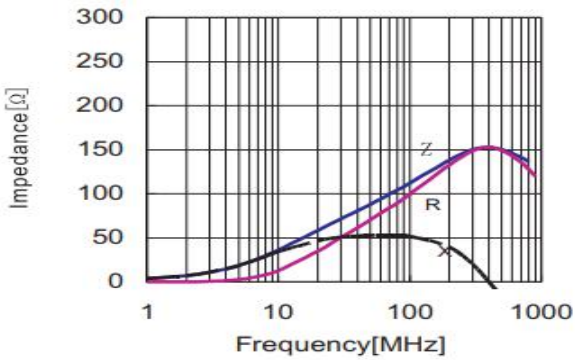


TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

PFHB2012P121



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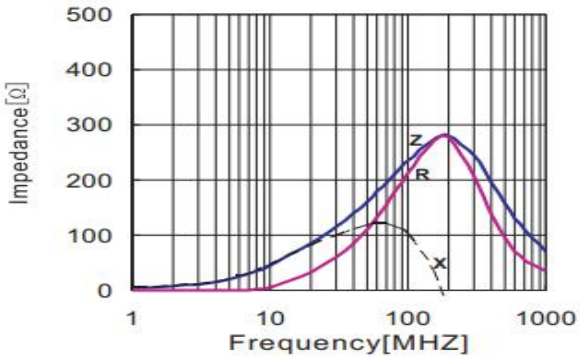

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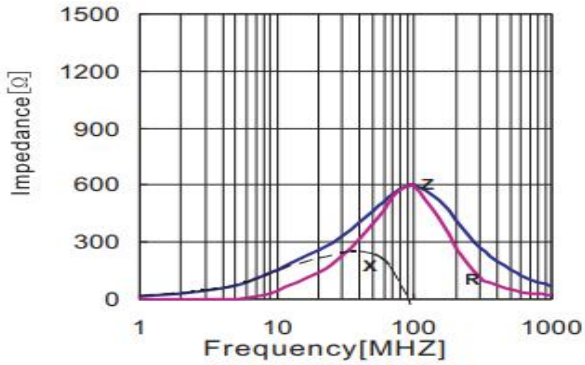

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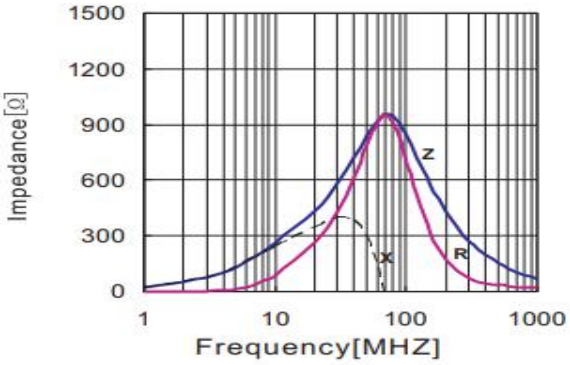

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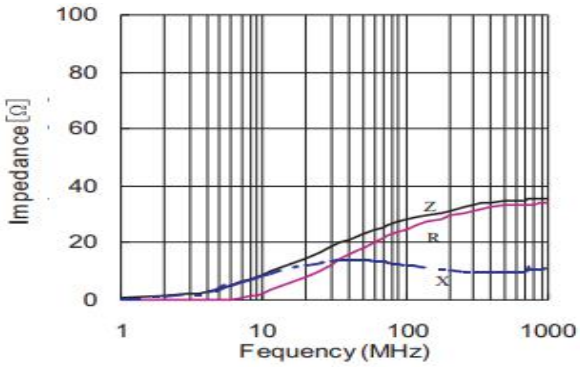

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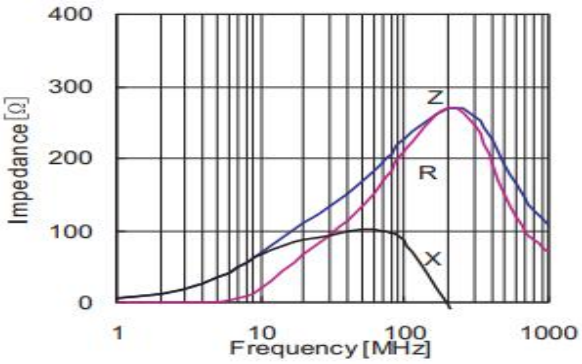

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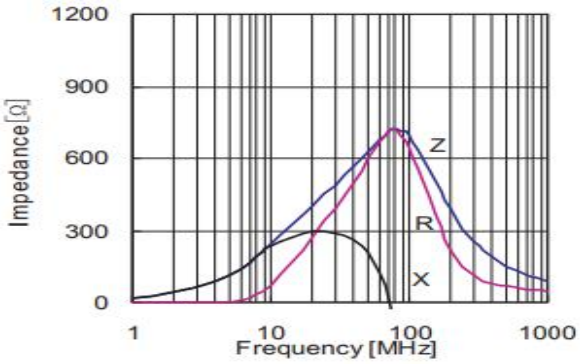
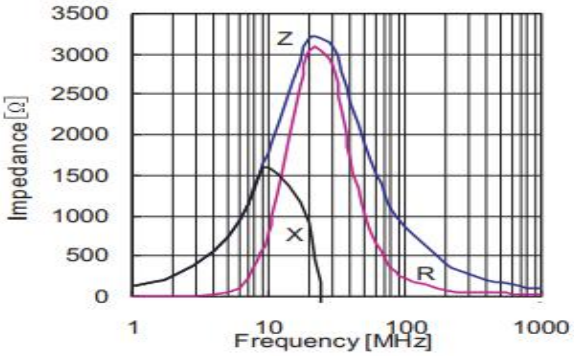
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