

MULTILAYER FERRITE CHIP BEAD FOR HIGH SPEED

片式铁氧体尖峰磁珠



PFSB SERIES



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Multilayer Ferrite Chip Bead for High Speed-PFSB Series

片式铁氧体尖峰磁珠-PFSB 系列



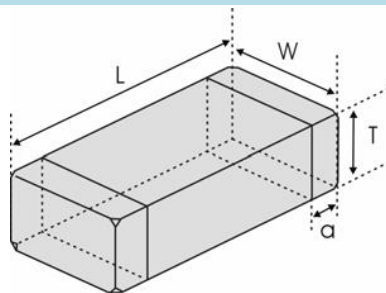
INTRODUCTION AND CHARACTERISTICS 产品介绍及特性

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. Multilayer Ferrite Chip Bead for High Speed is sharp impedance characteristics at desirable frequency and does not affect the signal frequency.	◆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。片式铁氧体尖峰磁珠在某频率区域内，其阻抗值急剧上升，从而在特定的频率区域内获得较高的衰减效果而对信号不产生影响。
CHARACTERISTICS	特性
◆Monolith structure for high reliability ◆No cross coupling due to magnetic shield ◆Perfect shape for mounting with no directionality ◆Excellent solderability and high heat resistance for reflow soldering or wave soldering	◆积层独石结构、高可靠性 ◆良好的磁屏蔽，无交叉耦合 ◆无引线结构，适合表面安装 ◆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 ◆DSC,DVC,LCD Television,Set Top Box ◆Mobile phone,smart phone,PHD ◆Redialed noise suppression on digital product clock lines signal lines and suppression noise on circuit	◆主机板，平板电脑，笔记型，桌上型电脑及其周边设备 ◆数位相机，数位摄影机，液晶电视机，数位机上盒 ◆行动电话，智能手机，个人导航设备 ◆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

PFSB 2012 S 601 T
 ① ② ③ ④ ⑤

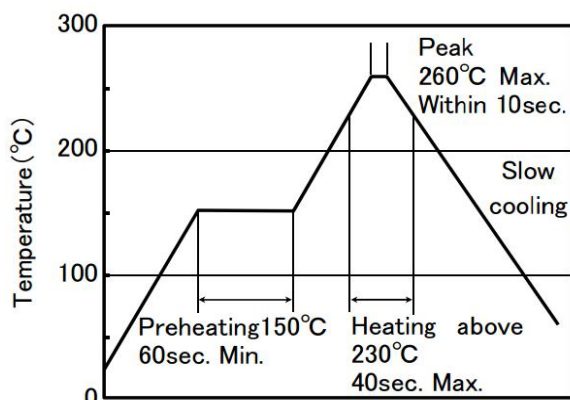
①Product Series Code 产品系列码	PFSB	Multilayer Ferrite Chip Bead for High Speed 片式铁氧体尖峰磁珠
②Size Code 尺寸码	2012	长×宽 (L×W) (mm) 2.0×1.2
③Material Code 材质代号	--	P M S
④Nominal Impedance 阻抗	600	60 Ω
	601	600 Ω
⑤Packing 包装形式	T	Tape and Reel 编带

SHAPE AND DIMENSIONS 外观尺寸


SIZE 尺寸	L 长 mm	W 宽 mm	T 厚 mm	a 银厚 mm
0603(0201)	0.6±0.05	0.3±0.05	0.3±0.05	0.1~0.2
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	1.25±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

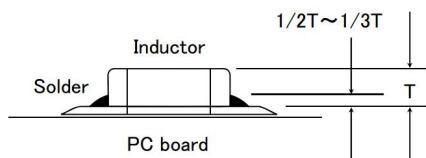
Operating Temperature Range	-55℃~+125℃
Storage Temperature and Humidity Range	-10℃~+40℃, 70%RH max.

RECOMMENDED SOLDERING CONDITION 建议焊锡方式
REFLOW SOLDERING 回流焊


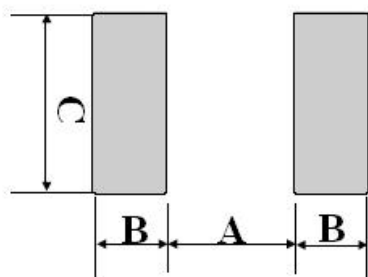
- ① Ceramic chip components should be preheated to within 100 to 130°C of the soldering.
- ② Assured to be reflow soldering for 2 times.

Caution:

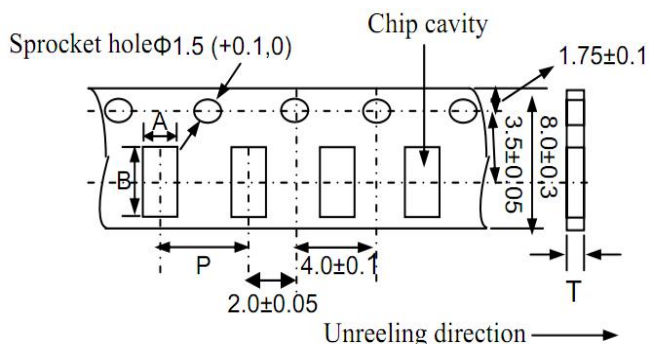
1)The ideal condition is to have solder mass (fillet) controlled to 1/2 to 1/3 of the thickness of the inductor.



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

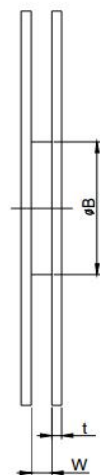
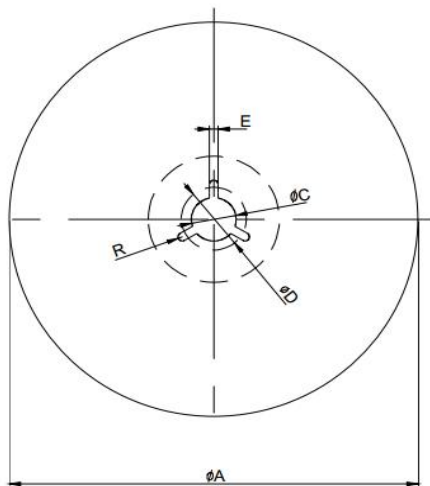
RECOMMENDED LAND PATTERN 推荐的焊盘尺寸


Dimension (mm)	A (mm)	B (mm)	C (mm)
0603	0.2~0.3	0.2~0.3	0.3~0.35
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
PFSB0603	0.30	0.40	0.70	2	0.55	15000
PFSB1005	0.50	0.65	1.15	2	0.80	10000
PFSB1608	0.80	1.00	1.80	4	1.10	4000
PFSB2012	0.85	1.50	2.30	4	1.10	4000
PFSB3216	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

PFSB 0603(0201) 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	$\Omega \pm 25\%$	Ω (Max.)	mA (Max.)	mm
PFSB0603S100T	10	0.25	200	0.3 ± 0.05
PFSB0603S220T	22	0.45	200	0.3 ± 0.05
PFSB0603S330T	33	0.55	150	0.3 ± 0.05
PFSB0603S470T	47	0.70	150	0.3 ± 0.05
PFSB0603S560T	56	1.00	100	0.3 ± 0.05
PFSB0603S800T	80	1.30	100	0.3 ± 0.05
PFSB0603S121T	120	1.50	100	0.3 ± 0.05

PFSB 1005(0402) 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	$\Omega \pm 25\%$	Ω (Max.)	mA (Max.)	mm
PFSB1005S050T	0~15	0.15	600	0.5 ± 0.15
PFSB1005S300T	30	0.15	600	0.5 ± 0.15
PFSB1005S750T	75	0.30	600	0.5 ± 0.15
PFSB1005S121T	120	0.40	400	0.5 ± 0.15
PFSB1005S221T	220	0.70	200	0.5 ± 0.15
PFSB1005M750T	75	0.30	600	0.5 ± 0.15
PFSB1005M121T	120	0.40	400	0.5 ± 0.15
PFSB1005M221T	220	0.70	200	0.5 ± 0.15
PFSB1005M301T	300	0.80	200	0.5 ± 0.15
PFSB1005M421T	420	1.00	150	0.5 ± 0.15
PFSB1005M601T	600	1.10	100	0.5 ± 0.15
PFSB1005M102T	1000	1.20	100	0.5 ± 0.15
PFSB1005M152T	1500	1.40	100	0.5 ± 0.15
PFSB1005M182T	1800	1.80	50	0.5 ± 0.15

PFSB 1608(0603) 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	$\Omega \pm 25\%$	Ω (Max.)	mA (Max.)	mm
PFSB1608S050T	0~15	0.10	800	0.8 ± 0.15
PFSB1608S220T	22	0.20	800	0.8 ± 0.15
PFSB1608S600T	60	0.30	600	0.8 ± 0.15
PFSB1608S121T	120	0.45	600	0.8 ± 0.15
PFSB1608S221T	220	0.55	500	0.8 ± 0.15
PFSB1608S331T	330	0.70	500	0.8 ± 0.15
PFSB1608S471T	470	0.80	400	0.8 ± 0.15

PFSB1608S601T	600	1.10	200	0.8±0.15
PFSB1608S102T	1000	1.20	150	0.8±0.15
PFSB1608M121T	120	0.40	600	0.8±0.15
PFSB1608M221T	220	0.45	500	0.8±0.15
PFSB1608M331T	330	0.50	500	0.8±0.15
PFSB1608M421T	420	0.55	400	0.8±0.15
PFSB1608M471T	470	0.55	400	0.8±0.15
PFSB1608M601T	600	0.60	200	0.8±0.15
PFSB1608M102T	1000	0.80	200	0.8±0.15
PFSB1608M152T	1500	0.80	200	0.8±0.15
PFSB1608M202T	2000	1.00	200	0.8±0.15
PFSB1608M222T	2200	1.00	200	0.8±0.15
PFSB1608M252T	2500	1.20	200	0.8±0.15
PFSB1608M272T	2700	1.40	200	0.8±0.15

SPECIFICATIONS 规格特性

PFSB 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	$\Omega \pm 25\%$	Ω (Max.)	mA (Max.)	mm
PFSB2012S050T	0~15	0.07	1000	0.85±0.2
PFSB2012S300T	30	0.10	1000	0.85±0.2
PFSB2012S600T	60	0.20	800	0.85±0.2
PFSB2012S121T	120	0.25	600	0.85±0.2
PFSB2012S221T	220	0.30	600	0.85±0.2
PFSB2012S421T	420	0.40	600	0.85±0.2
PFSB2012S601T	600	0.45	600	0.85±0.2
PFSB2012S102T	1000	0.50	500	0.85±0.2
PFSB2012M121T	120	0.20	600	0.85±0.2
PFSB2012M221T	220	0.25	600	0.85±0.2
PFSB2012M301T	300	0.30	600	0.85±0.2
PFSB2012M601T	600	0.35	600	0.85±0.2
PFSB2012M102T	1000	0.40	500	0.85±0.2
PFSB2012M152T	1500	0.45	200	0.85±0.2
PFSB2012M222T	2200	0.60	200	0.85±0.2
PFSB2012M252T	2500	0.70	200	0.85±0.2
PFSB2012M272T	2700	0.80	200	0.85±0.2

SPECIFICATIONS 规格特性

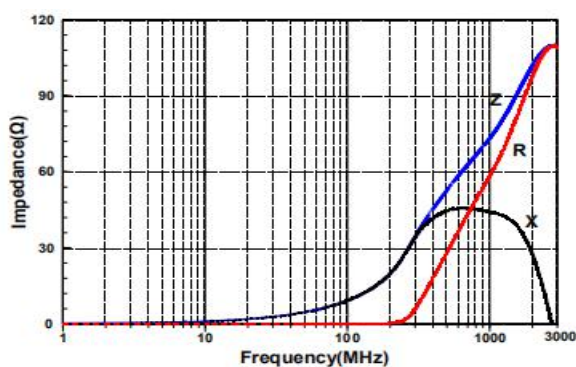
PFSB 3216(1206) TYPE

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	$\Omega \pm 25\%$	Ω (Max.)	mA (Max.)	mm
PFSB3216S190T	12~25	0.10	500	0.85±0.2
PFSB3216S260T	26	0.10	500	0.85±0.2
PFSB3216S310T	31	0.10	500	0.85±0.2
PFSB3216S700T	70	0.20	400	0.85±0.2
PFSB3216S800T	80	0.20	400	0.85±0.2
PFSB3216S101T	100	0.20	400	0.85±0.2
PFSB3216S121T	120	0.20	400	0.85±0.2
PFSB3216S151T	150	0.20	400	0.85±0.2
PFSB3216S221T	220	0.20	400	0.85±0.2
PFSB3216S301T	300	0.25	400	0.85±0.2
PFSB3216S501T	500	0.30	300	0.85±0.2
PFSB3216S601T	600	0.30	300	0.85±0.2
PFSB3216S801T	800	0.40	300	0.85±0.2
PFSB3216S102T	1000	0.40	300	0.85±0.2
PFSB3216S122T	1200	0.60	100	0.85±0.2

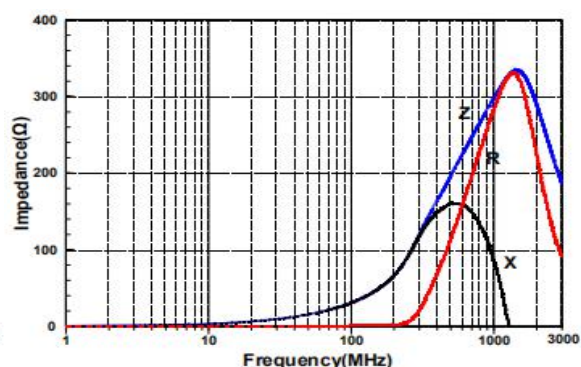
TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

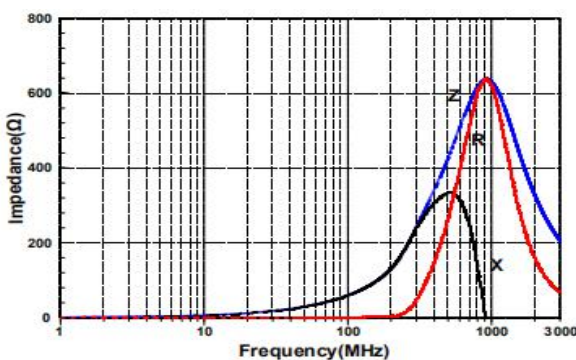
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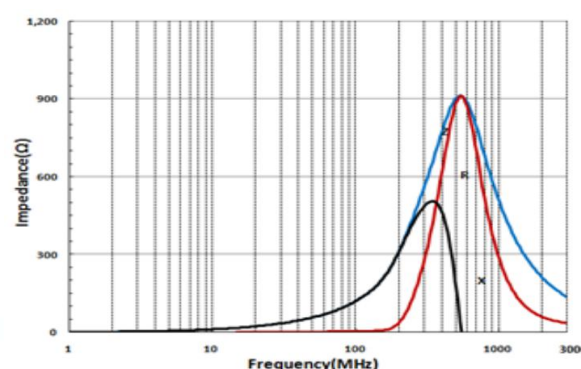
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PFSB0603S560



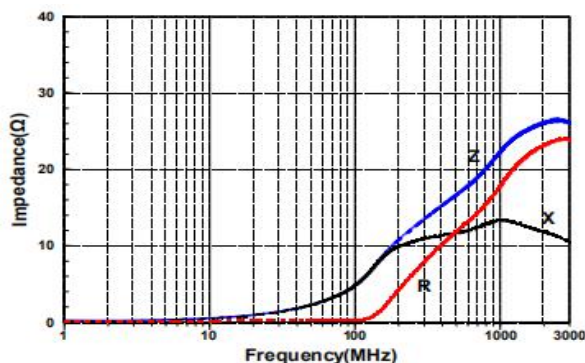
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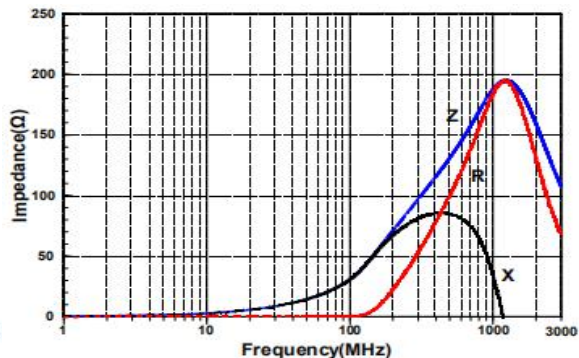
TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

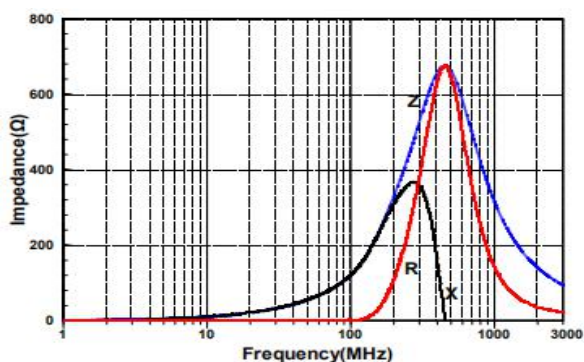
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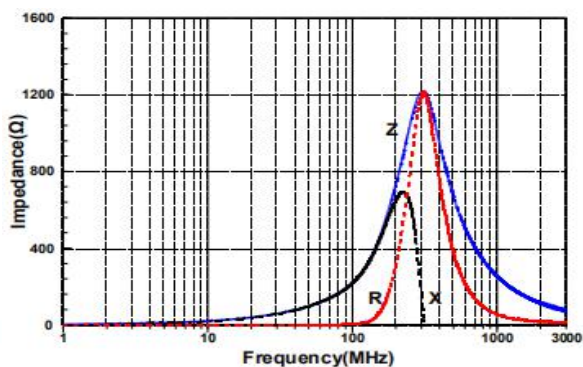
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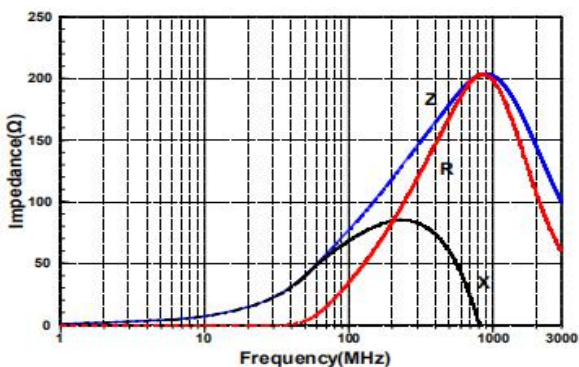
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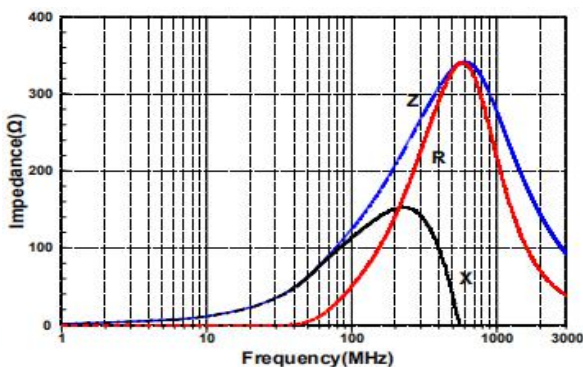
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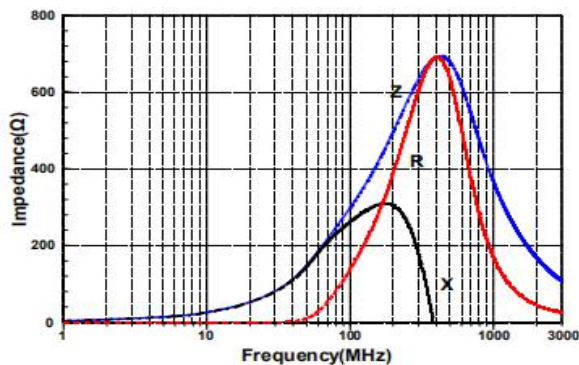
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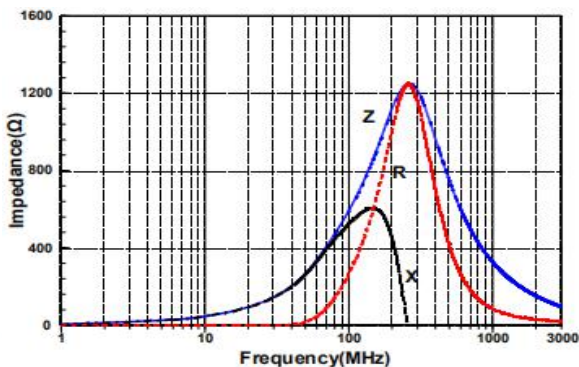
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PFSB1005M301



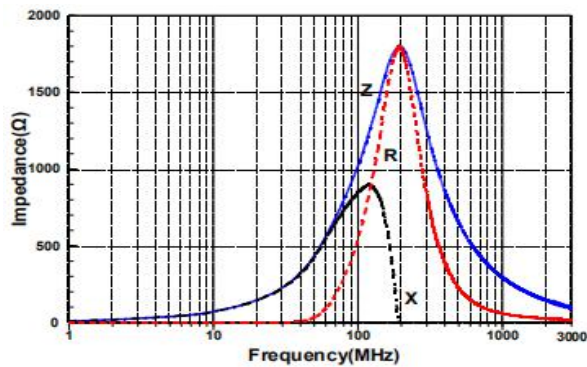
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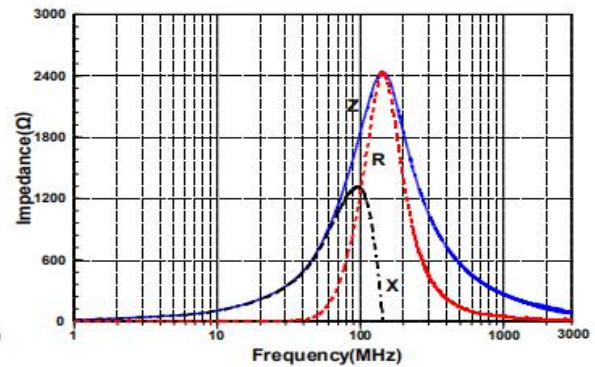
TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

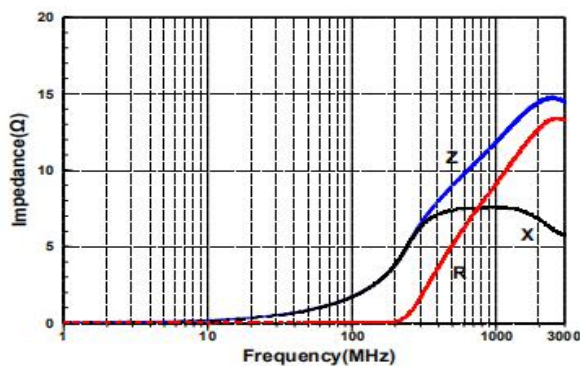
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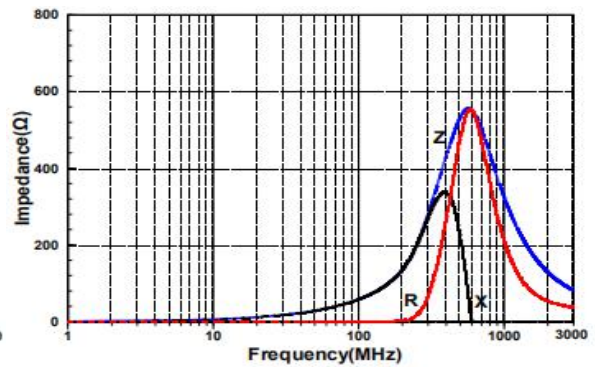
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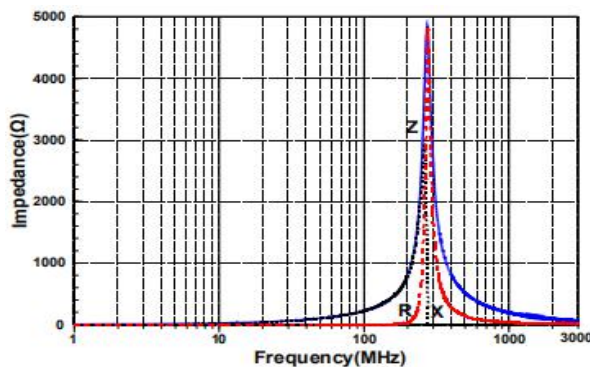
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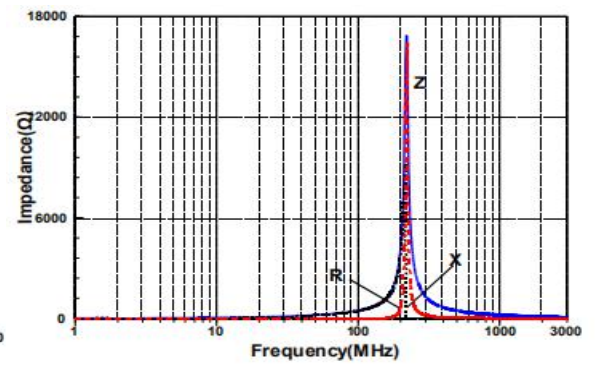
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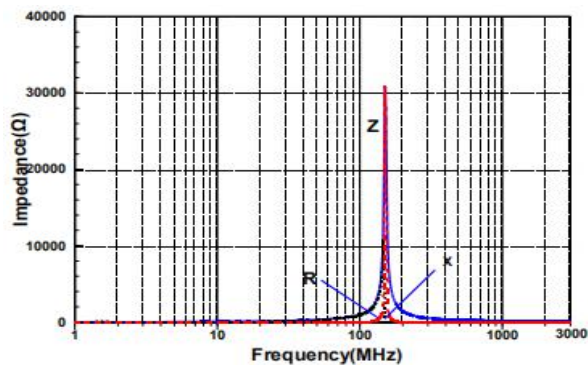
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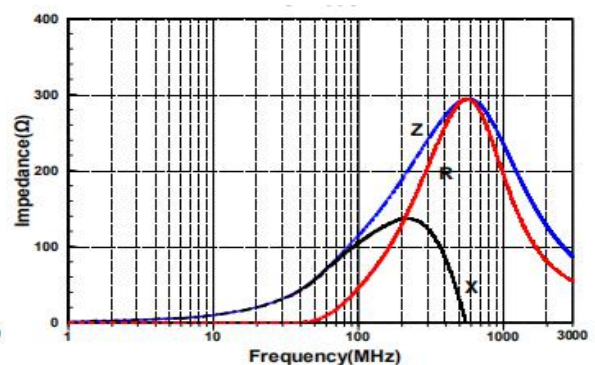
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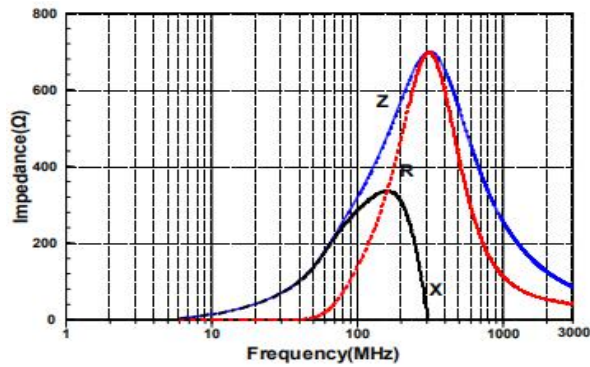
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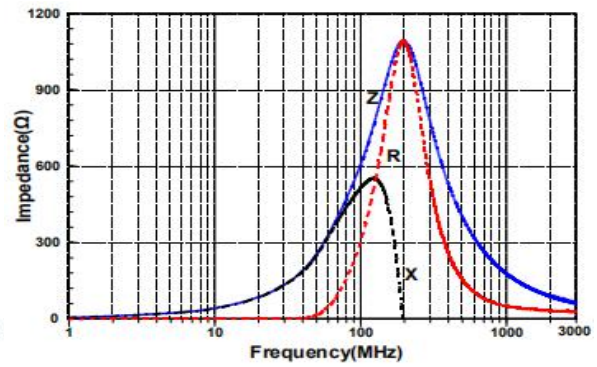
TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

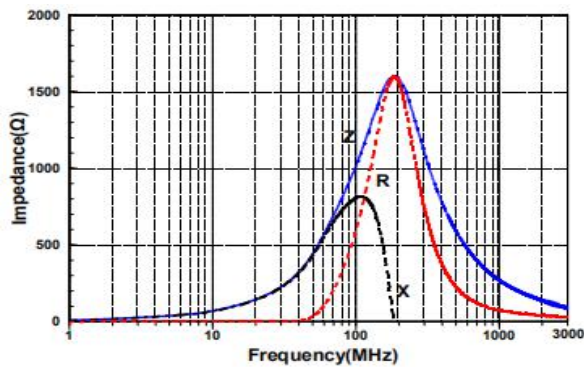
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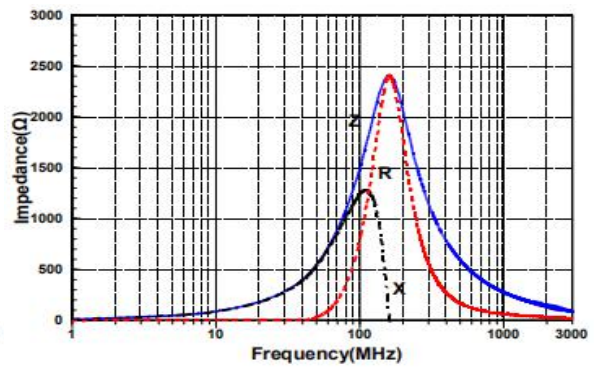
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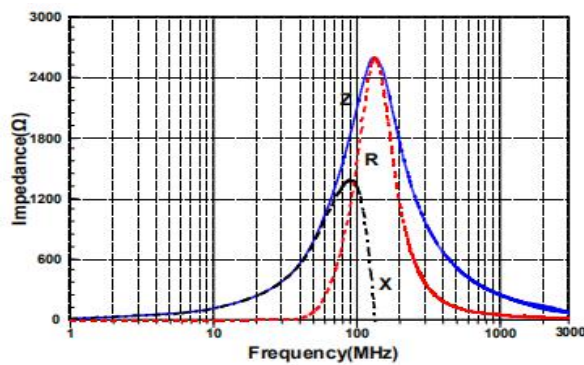
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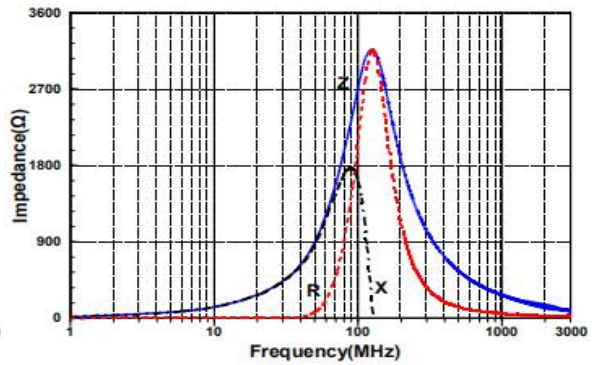
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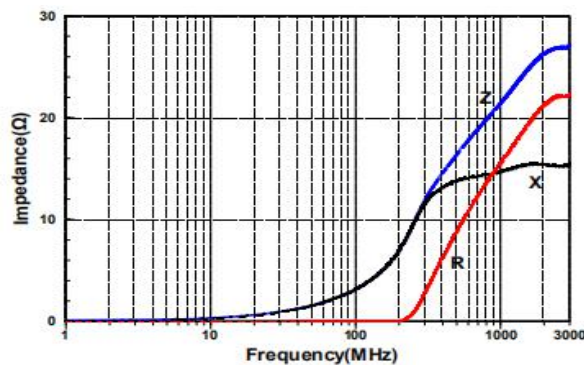
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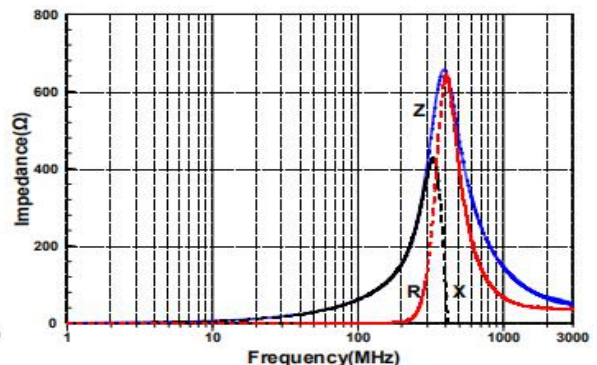
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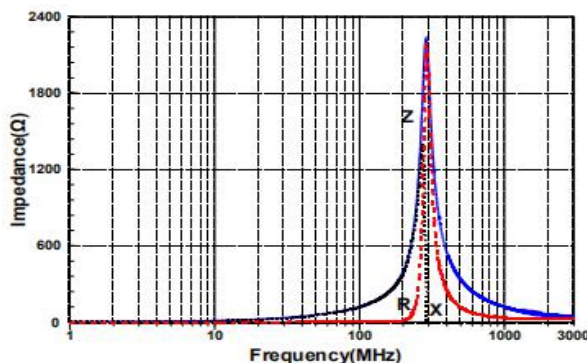
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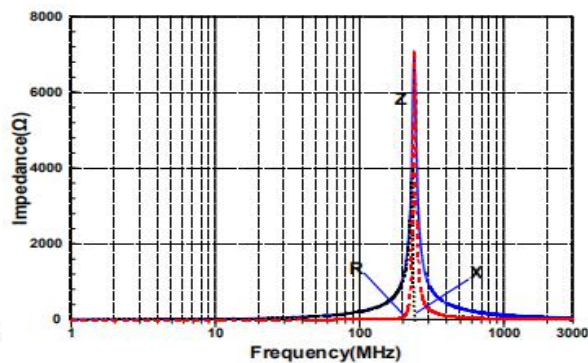
TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

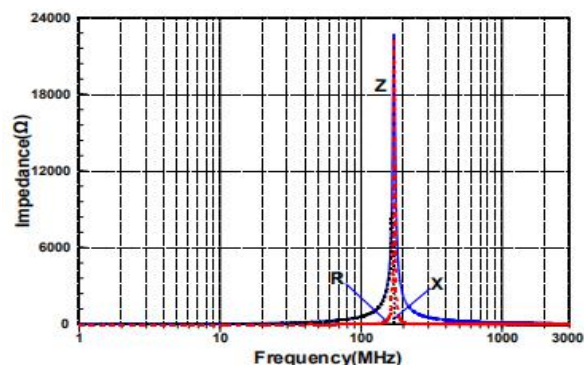
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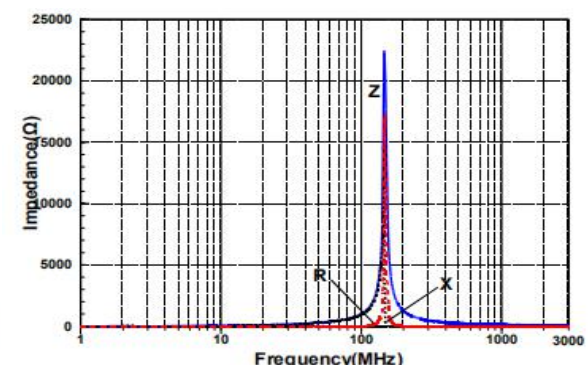
PFSB2012S221



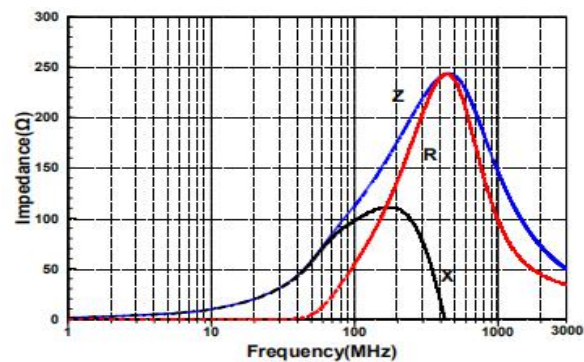
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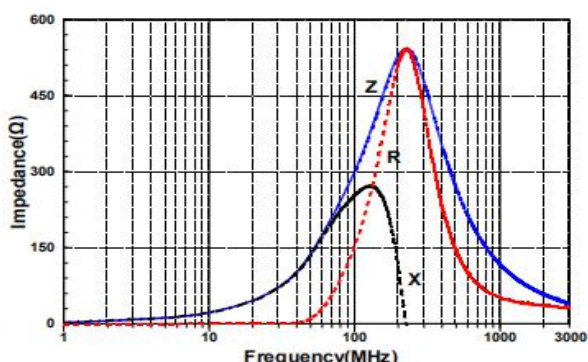
PFSB2012S102



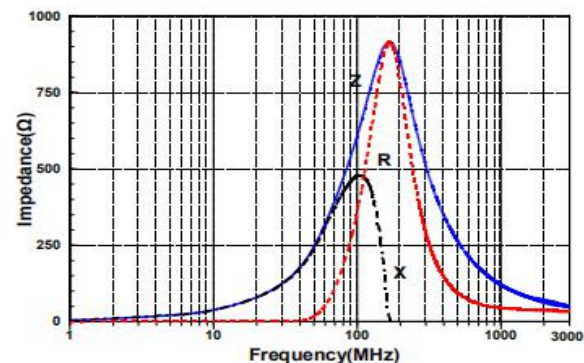
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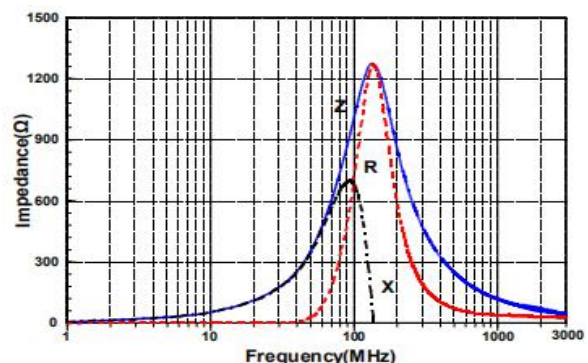
PFSB2012M301



PFSB2012M601



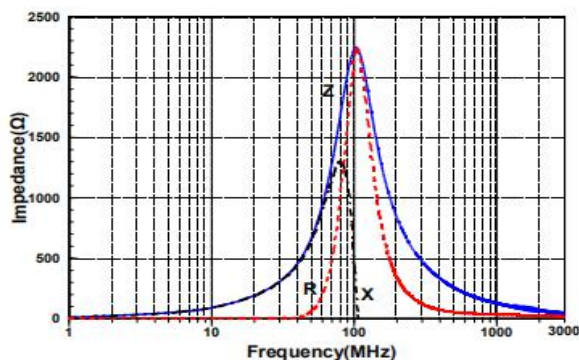
PFSB2012M102



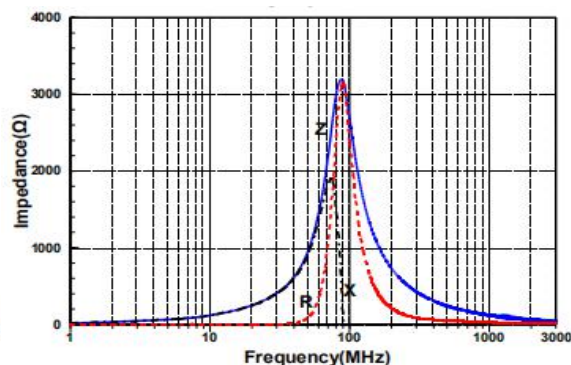
TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

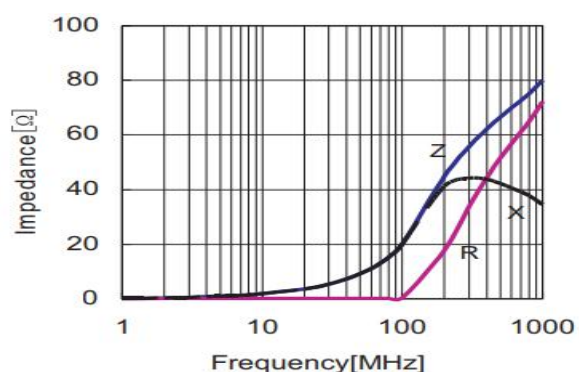
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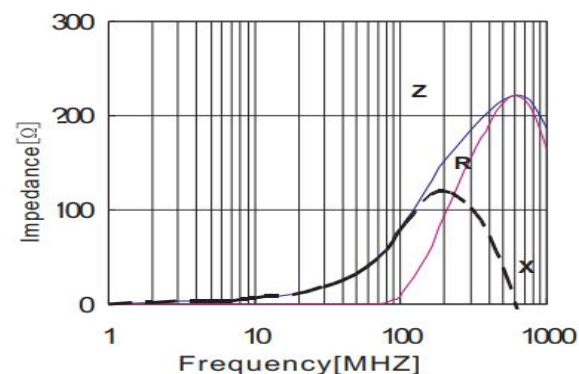
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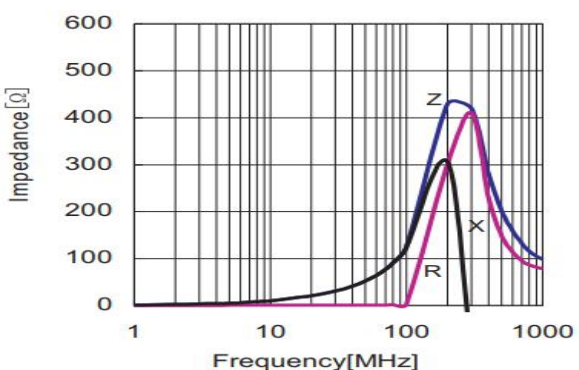
PFSB3216M260



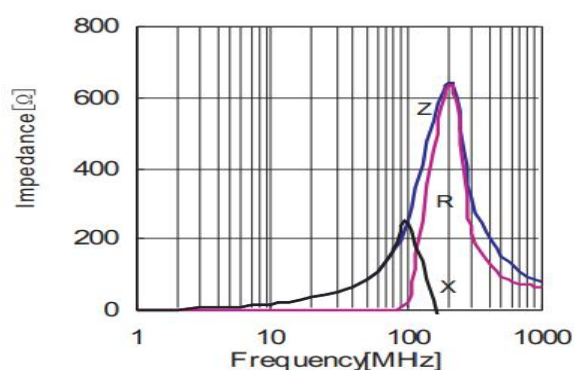
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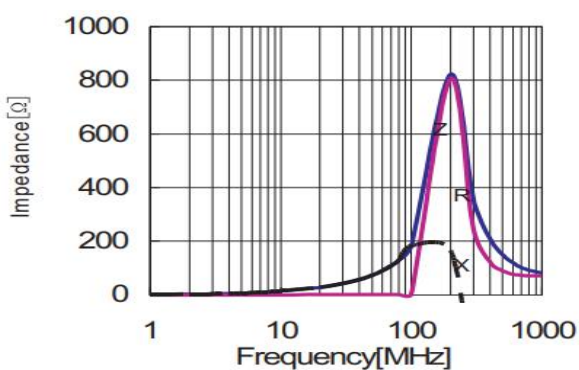
PFSB3216M121



PFSB3216M221



PFSB3216M301



PFSB3216M102

