

MULTILAYER FERRITE CHIP BEAD FOR HIGH FREQUENCY

片式铁氧体高频磁珠



PFHB SERIES



深圳高路瑞电子有限公司

Shenzhen Glory Electronics Co., Ltd.

Tel: 0755-2342 5572

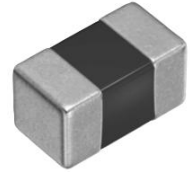
FAX: 158 8976 3756

Website: www.gloryelectr.com

E-mail: glory@gloryelectr.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($\geq 1\text{GHz}$).

◆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($\geq 1\text{GHz}$)段噪声具有优良的 EMI 抑制效果。

CHARACTERISTICS	特性
-----------------	----

◆ Monolith structure for high reliability
 ◆ Under the same size the multilayer chip beads produce higher impedance than plug-in beads
 ◆ No cross coupling due to magnetic shield
 ◆ Perfect shape for mounting with no directionality
 ◆ Excellent solderability and high heat resistance or reflow soldering or wave soldering

◆ 积层独石结构、高可靠性
 ◆ 在同样的尺寸下较插装磁珠有更高的阻抗值
 ◆ 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

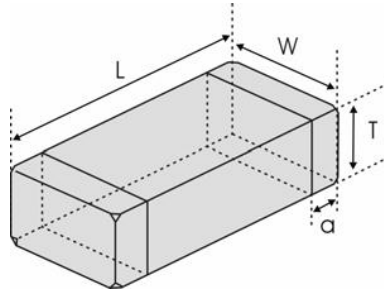
◆ 主机板，平板电脑，笔记型，桌上型电脑及其周边设备
 ◆ 数位相机，数位摄影机，液晶电视机，数位机上盒
 ◆ 行动电话，智能手机，个人导航设备
 ◆ 用于数据传输线、信号线。电源及回路部分的抗干扰

PRODUCT IDENTIFICATION 产品型号

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	60 Ω
	601	600 Ω
⑤Packing 包装形式	T	Tape and Reel 编带

SHAPE AND DIMENSIONS 外观尺寸



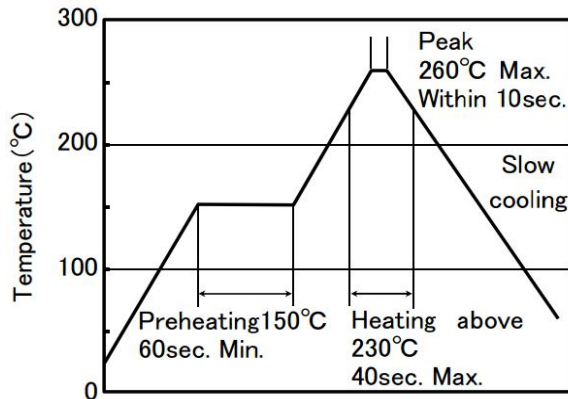
SIZE 尺寸	L 长 mm	W 宽 mm	T 厚 mm	a 银厚 mm
1005(0402)	1.0±0.15	0.5±0.15	0.5±0.15	0.15~0.35
1608(0603)	1.6±0.15	0.8±0.15	0.8±0.15	0.1~0.5
2012(0805)	2.0±0.2	1.2±0.2	0.85±0.2	0.2~0.8
3216(1206)	3.2±0.2	1.6±0.2	0.85±0.2	0.2~0.8

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

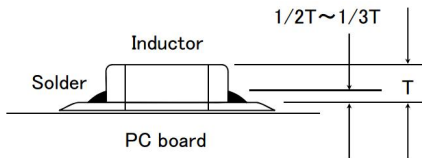
REFLOW SOLDERING 回流焊



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

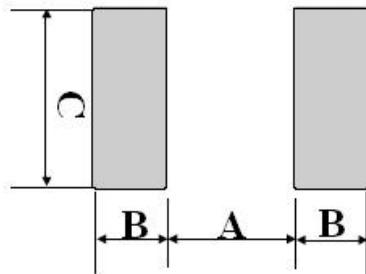
Caution:

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

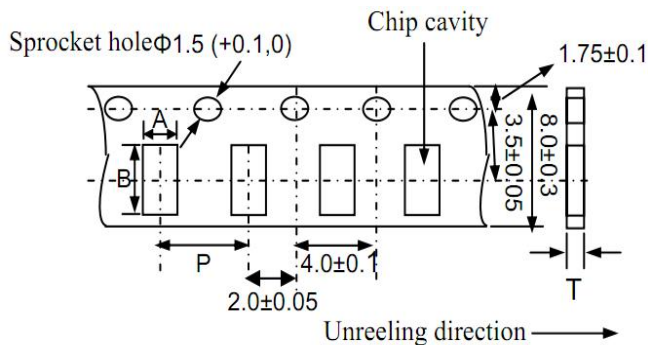


Dimension (mm)	A (mm)	B (mm)	C (mm)
1005	0.45~0.55	0.40~0.50	0.45~0.55
1608	0.6~0.8	0.6~0.8	0.6~0.8
2012	0.8~1.2	0.8~1.2	0.9~1.6
3216	1.8~2.5	1.0~1.5	1.2~2.0

PACKING STANDARD 包装标准

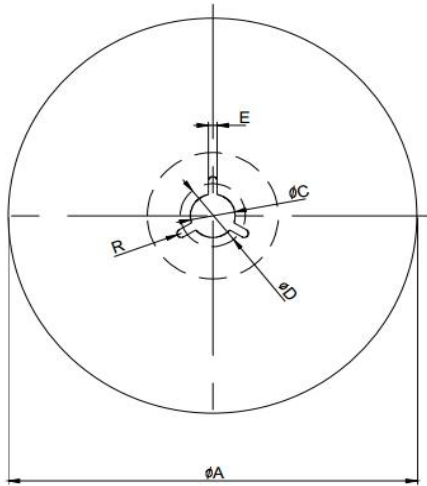
Taping Dimensions

◆ 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	$\Omega \pm 25\%$	$\Omega \pm 40\%$	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

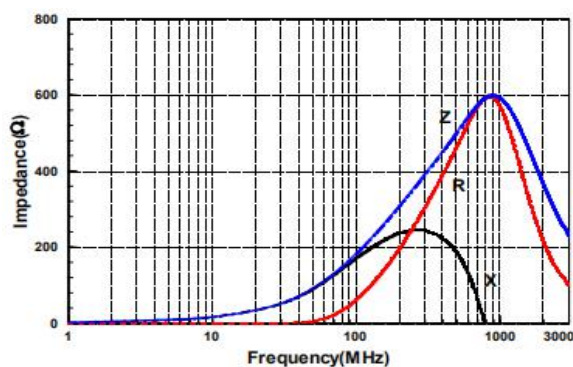
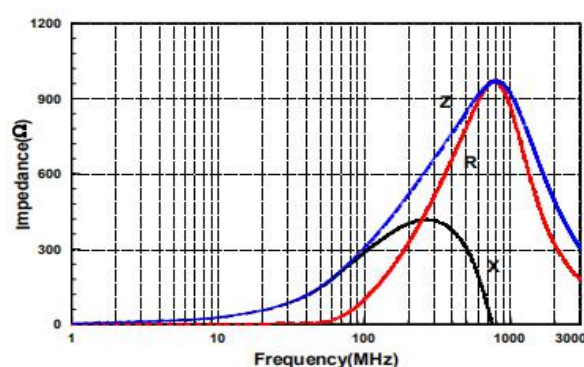
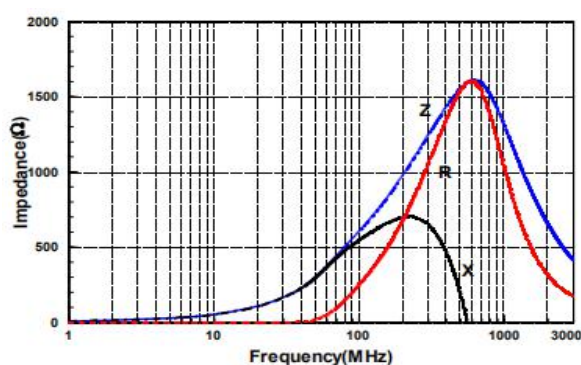
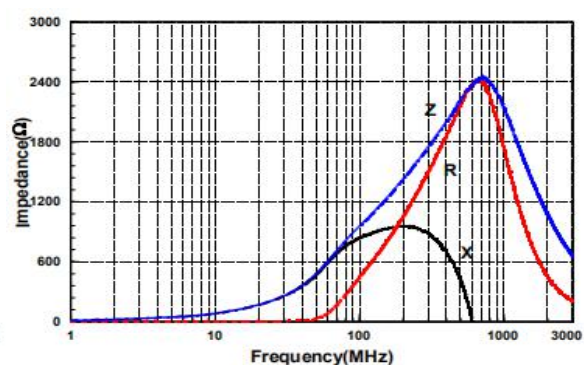
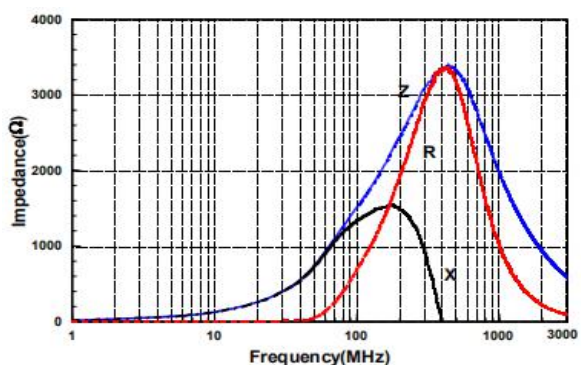
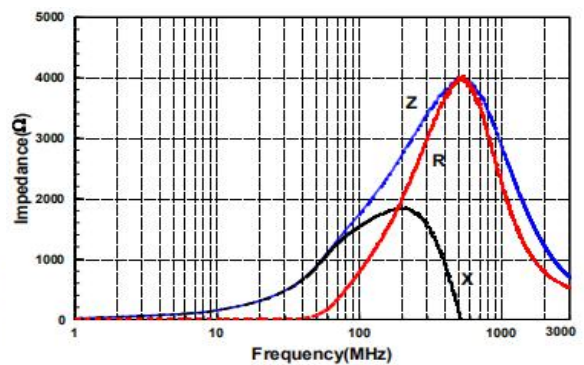
Part Number 型号	Impedance At 100MHz 阻抗 Z	Impedance At 1GHz 阻抗 Z	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir	Thickness 厚度
Units 单位	$\Omega \pm 25\%$	$\Omega \pm 40\%$	Ω (Max.)	mA (Max.)	mm
PFHB1608M471T	470	700	1.20	100	0.8±0.15
PFHB1608M601T	600	850	1.50	100	0.8±0.15
PFHB1608M102T	1000	1100	1.80	50	0.8±0.15
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	$\Omega \pm 25\%$	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

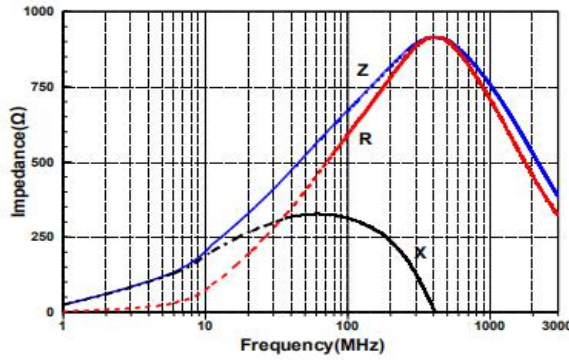
Part Number 型号	Impedance At 100MHz 阻抗 Z	DC Resistance 直流电阻 RDC	Rated Current 额定电流 Ir	Thickness 厚度
Units 单位	$\Omega \pm 25\%$	Ω (Max.)	mA (Max.)	mm
PFHB3216P260T	26	0.10	1000	0.85±0.2
PFHB3216P121T	120	0.15	1000	0.85±0.2
PFHB3216P301T	300	0.25	300	0.85±0.2
PFHB3216P501T	500	0.30	200	0.85±0.2
PFHB3216P601T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

PFHB1005M301

PFHB1005M601

PFHB1005M102

PFHB1005M152

PFHB1005M182


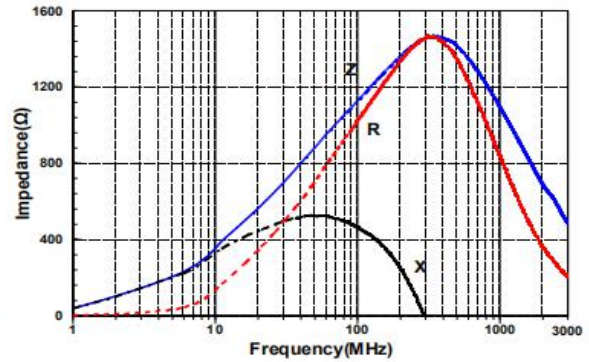
TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

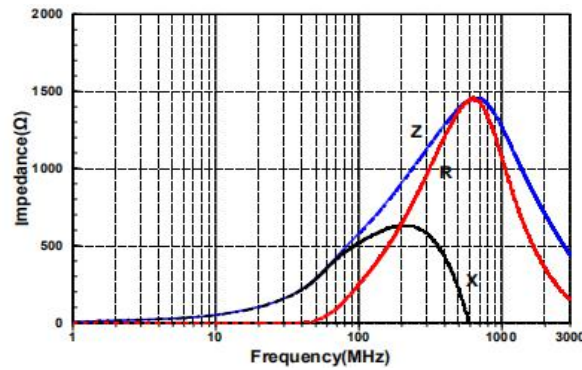
PFHB1005P601



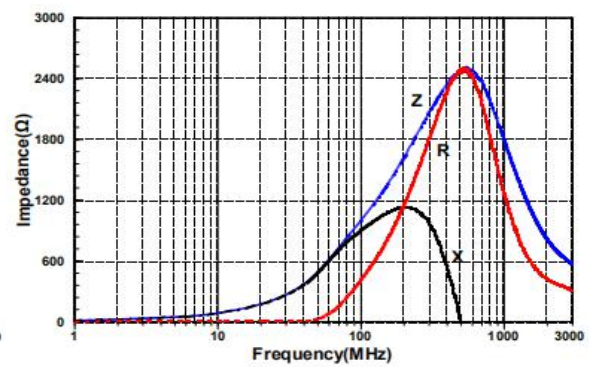
PFHB1005P102



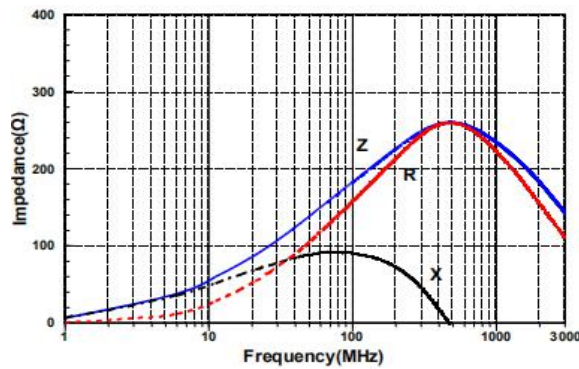
PFHB1608M601



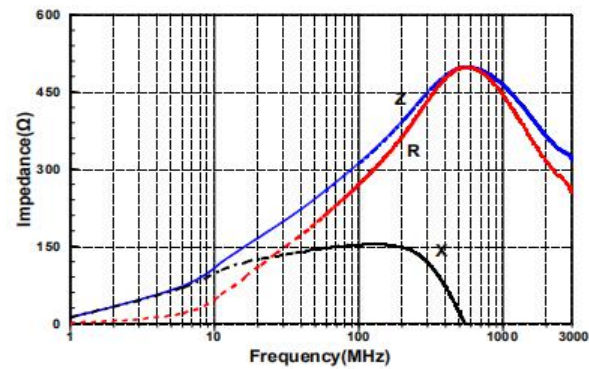
PFHB1608M102



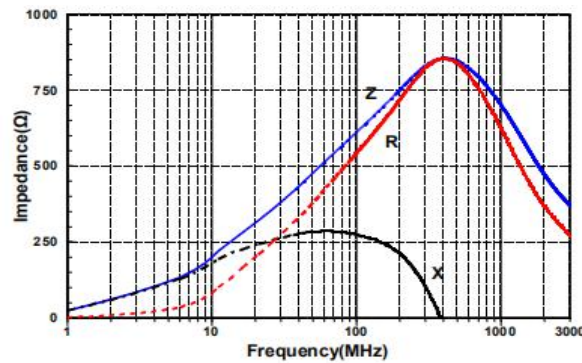
PFHB1608P181



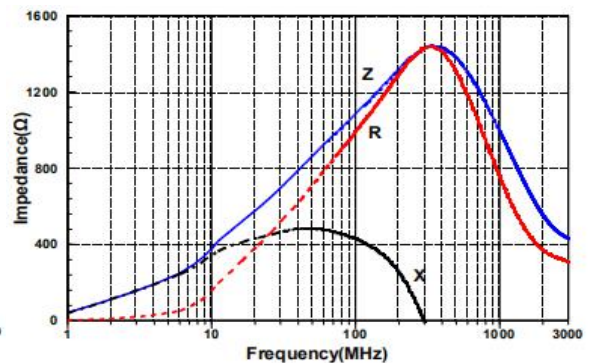
PFHB1608P301



PFHB1608P601



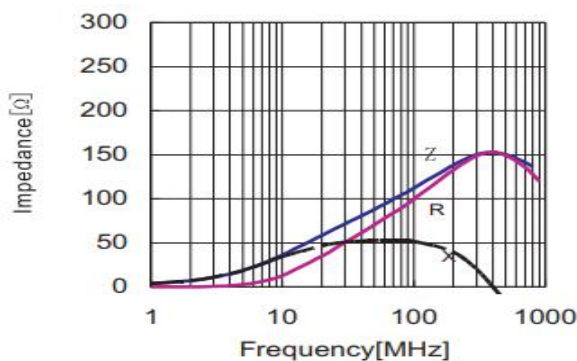
PFHB1608P102



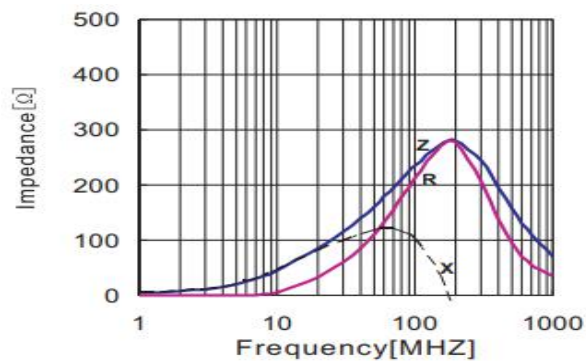
TYPICAL ELECTRICAL CHARACTERISTICS 典型电气特性

Z, R, X vs. FREQUENCY CHARACTERISTICS

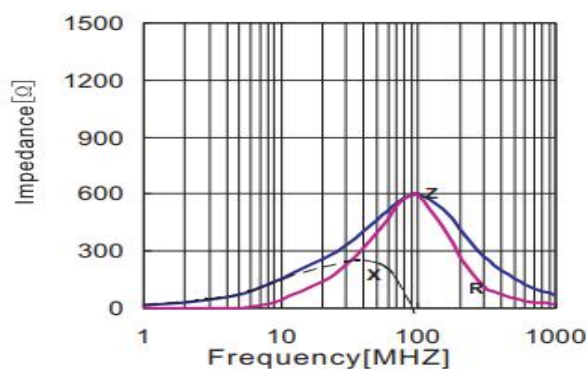
PFHB2012P121



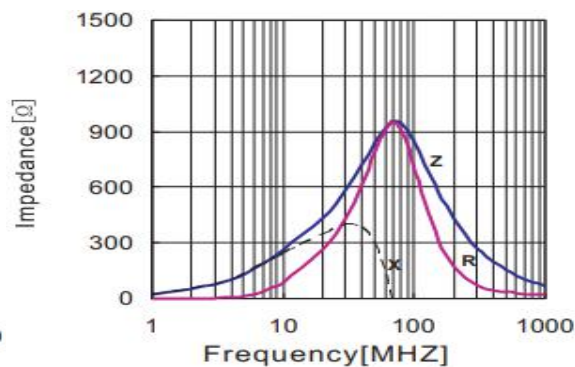
PFHB2012P221



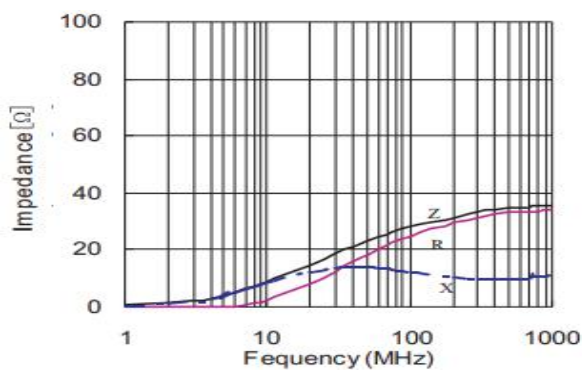
PFHB2012P601



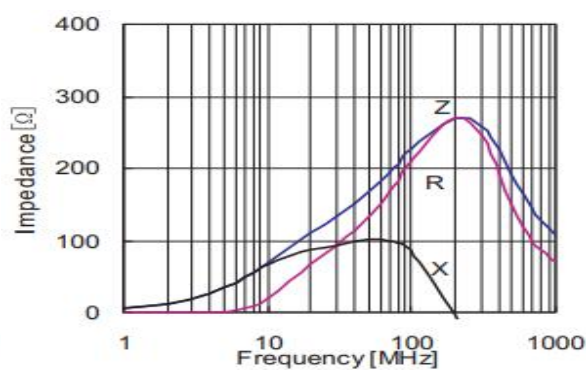
PFHB2012P102



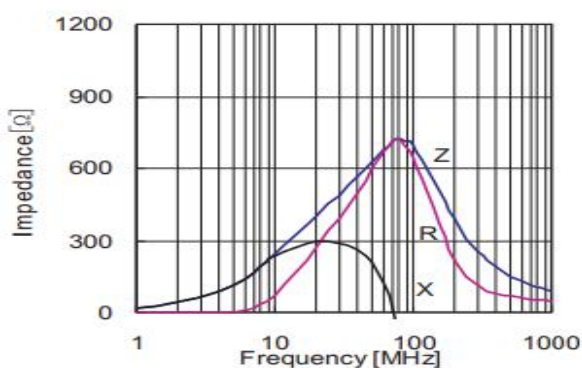
PFHB3216P260



PFHB3216P221



PFHB3216P601



PFHB3216P801

