Multilayer Chip Ferrite Bead HPCB-PB Series

FEATURES

- Internal silver printed layers and magnetic shielded structures to minimize crosstalk
- Large withstand current (allowable current: up to 6A)
- Can be used in a wide range of frequency to suppress EMI
- Three types material and wide range of impedance values for various applications

APPLICATIONS

- Noise suppression for power line or large current signal of electric equipments such as computers and peripheral devices, DVD cameras, LCD TVs, communication equipments, OA equipments, etc.

PRODUCT IDENTIFICATION

HPCB	—	**FU**	**U**	**1608**	**T**	**121**	**2R0**	**F**	**XX**
A		B	C	D	E	F	G	H	I

A

Type	
HPCB	Chip Ferrite Bead for Large Current

B

FU	Material Code
F=ferrite	D, E, U

C

Feature Code	
U	Large current

D

External Dimensions (L×W) (mm)	
1005 [0402]	1.0x0.5
1608 [0603]	1.6x0.8
2012 [0805]	2.0x1.25
3216 [1206]	3.2x1.6
4516 [1806]	4.5x1.6

E

Packing	
T	Tape & Reel

F

Nominal Impedance	
Example	Nominal Value
300	30Ω
121	120Ω
102	1000Ω

G

Rated Current	
1R0	1.0A
2R5	2.5A
R60	0.6A

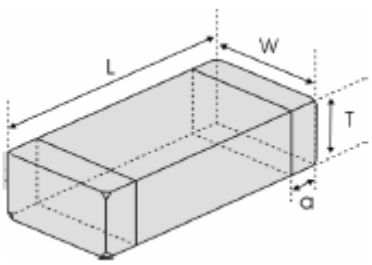
H

Hazardous Substance
F

I

Internal Code
XX

SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
HPCB-1005 [0402]	1.0±0.15 [.039±006]	0.5±0.15 [.020±006]	0.5±0.15 [.020±006]	0.25±0.1 [.010±004]
HPCB-1608 [0603]	1.6±0.15 [.063±006]	0.8±0.15 [.031±006]	0.8±0.15 [.031±006]	0.3±0.2 [.012±008]
HPCB-2012 [0805]	2.0 (+0.3, -0.1) [.079 (+.012, -	1.25±0.2 [.049±008]	0.85±0.2 [.033±008]	0.5±0.3 [.020±012]
HPCB-3216 [1206]	3.2±0.2 [.126±008]	1.6±0.2 [.063±008]	0.85±0.2 [.033±008]	0.5±0.3 [.020±012]
			1.1±0.2 [.043±008]	
HPCB-4516 [1806]	4.5±0.2 [.178±008]	1.6±0.2 [.063±008]	1.6±0.2 [.063±008]	0.5±0.3 [.020±012]

SPECIFICATIONS

HPCB-PB Series-1005 TYPE

Part Number	Impedance	Z Test Freq.	Max. DC Resistance	Max. Rated Current	Thickness
Units Symbol	Ω Z	MHz Freq.	Ω DCR	mA Ir	mm [inch] T
HPCB-FDU1005T100-1R0F	0~30	100	0.05	1000	0.5±0.15 [.020±.006]
HPCB-FEU1005T100-1R8F	0~15	100	0.02	1800	
HPCB-FEU1005T700-R80F	70±25%	100	0.10	800	
HPCB-FEU1005T121-R70F	120±25%	100	0.13	700	
HPCB-FEU1005T221-R60F	220±25%	100	0.18	600	
HPCB-FEU1005T601-R45F	600±25%	100	0.34	450	
HPCB-FUU1005T700-1R2F	70±25%	100	0.10	1200	
HPCB-FUU1005T121-1R0F	120±25%	100	0.12	1000	
HPCB-FUU1005T221-R80F	220±25%	100	0.18	800	
HPCB-FUU1005T601-R45F	600±25%	100	0.34	450	

SPECIFICATIONS

HPCB-1608 TYPE

Part Number	Impedance	Z Test Freq.	Max. DC Resistance	Max. Rated Current	Thickness
Units Symbol	Ω Z	MHz Freq.	Ω DCR	mA Ir	mm [inch] T
HPCB-FDU1608T300-3R0F	30±25%	100	0.03	3000	0.8±0.15 [.031±.006]
HPCB-FDU1608T600-2R0F	60±25%	100	0.08	2000	
HPCB-FDU1608T750-1R0F	75±25%	100	0.15	1000	
HPCB-FDU1608T121-1R0F	120±25%	100	0.20	1000	
HPCB-FDU1608T221-1R0F	220±25%	100	0.20	1000	
HPCB-FDU1608T601-R50F	600±25%	100	0.35	500	
HPCB-FDU1608T600-1R4F	60±25%	100	0.10	1400	
HPCB-FUU1608T100-3R0F	0~15	100	0.02	3000	
HPCB-FUU1608T300-3R0F	30±25%	100	0.03	3000	
HPCB-FUU1608T600-2R5F	60±25%	100	0.04	2500	
HPCB-FUU1608T121-2R0F	120±25%	100	0.05	2000	
HPCB-FUU1608T221-1R4F	220±25%	100	0.10	1400	
HPCB-FUU1608T331-1R2F	330±25%	100	0.14	1200	
HPCB-FUU1608T391-1R0F	390±25%	100	0.14	1000	
HPCB-FUU1608T471-1R0F	470±25%	100	0.20	1000	

HPCB-2012 TYPE

Part Number	Impedance	Z Test Freq.	Max. DC Resistance	Max. Rated Current	Thickness
Units Symbol	Ω Z	MHz Freq.	Ω DCR	mA Ir	mm [inch] T
HPCB-FDU2012T390-4R0F	39±25%	100	0.02	4000	0.85±0.2 [.033±.008]
HPCB-FDU2012T800-3R0F	80±25%	100	0.04	3000	
HPCB-FDU2012T121-2R5F	120±25%	100	0.06	2500	
HPCB-FDU2012T221-1R5F	220±25%	100	0.08	1500	
HPCB-FDU2012T301-1R5F	300±25%	100	0.12	1500	
HPCB-FDU2012T471-R80F	470±25%	100	0.25	800	
HPCB-FDU2012T601-R80F	600±25%	100	0.25	800	
HPCB-FUU2012T300-3R0F	30±25%	100	0.02	3000	
HPCB-FUU2012T300-4R0F	30±25%	100	0.015	4000	
HPCB-FUU2012T600-3R0F	60±25%	100	0.025	3000	
HPCB-FUU2012T121-2R5F	120±25%	100	0.04	2500	
HPCB-FUU2012T221-2R0F	220±25%	100	0.07	2000	

The data is reference only. Customers should verify actual device performance in their specific applications. Specifications are subject to change without notice.Please check our website for latest information. http:www.ftind.com

SPECIFICATIONS

HPCB-2012 TYPE

Part Number	Impedance	Z Test Freq.	Max. DC Resistance	Max. Rated Current	Thickness
Units Symbol	Ω Z	MHz Freq.	Ω DCR	mA Ir	mm [inch] T
HPCB-FUU2012T331-1R5F	330±25%	100	0.10	1500	0.85±0.2 [.033±.008]
HPCB-FUU2012T421-1R0F	420±25%	100	0.20	1000	
HPCB-FUU2012T601-R80F	600±25%	100	0.25	800	

HPCB-3216 TYPE

Part Number	Impedance	Z Test Freq.	Max. DC Resistance	Max. Rated Current	Thickness
Units Symbol	Ω Z	MHz Freq.	Ω DCR	mA Ir	mm [inch] T
HPCB-FDU3216T190-6R0F	19±25%	100	0.010	6000	0.85±0.2 [.033±.008]
HPCB-FDU3216T380-5R0F	38±25%	100	0.015	5000	
HPCB-FDU3216T600-4R0F	60±25%	100	0.02	4000	
HPCB-FDU3216T121-3R0F	120±25%	100	0.03	3000	
HPCB-FDU3216T501-2R0F	500±25%	100	0.07	2000	
HPCB-FDU3216T601-2R0F	600±25%	100	0.07	2000	
HPCB-FUU3216T300-6R0F	30±25%	100	0.01	6000	
HPCB-FUU3216T600-4R0F	60±25%	100	0.025	4000	
HPCB-FUU3216T121-3R0F	120±25%	100	0.03	3000	
HPCB-FUU3216T221-2R0F	220±25%	100	0.08	2000	
HPCB-FUU3216T301-2R0F	300±25%	100	0.10	2000	
HPCB-FUU3216T391-2R0F	390±25%	100	0.07	2000	
HPCB-FUU3216T601-1R5F	600±25%	100	0.10	1500	
HPCB-FUU3216T102-R50F	1000±25%	100	0.30	500	

Note: The thickness of 3216 series may be increased to 1.1 ±0.2 mm when the Ir of product increased.

SPECIFICATIONS

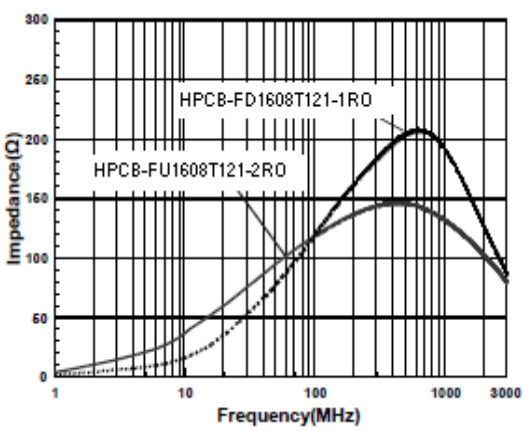
HPCB-4516 TYPE

Part Number	Impedance	Z Test Freq.	Max. DC Resistance	Max. Rated Current	Thickness
Units Symbol	Ω Z	MHz Freq.	Ω DCR	mA Ir	mm [inch] T
HPCB-FUU4516T600-6R0F	60±25%	100	0.01	6000	1.6±0.2 [.063±.008]
HPCB-FUU4516T720-6R0F	72±25%	100	0.01	6000	
HPCB-FUU4516T181-3R0F	180±25%	100	0.025	3000	
HPCB-FUU4516T471-2R0F	470±25%	100	0.05	2000	

※□: Products with other electrical characteristics can be provided upon customer's request.Please contact your local sales.

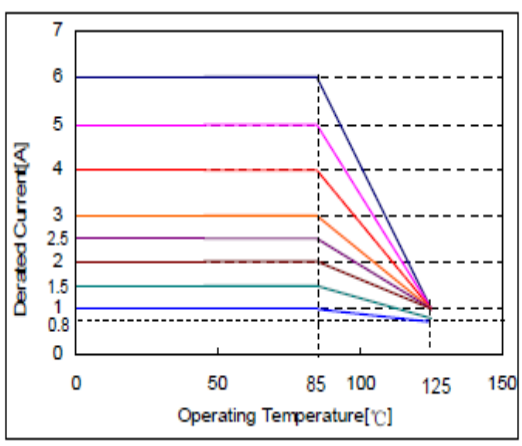
TYPICAL ELECTRICAL CHARACTERISTICS

D, E, U Material Comparison



Rated Current

When operating temperatures exceeding +85℃, derating of current is necessary for chip ferrite beads for which rated current is 1000mA over. Please apply the derating curve shown in chart according to the operating temperature.



DETAIL ELECTRICAL CHARACTERISTICS

HPCB-1005 TYPE

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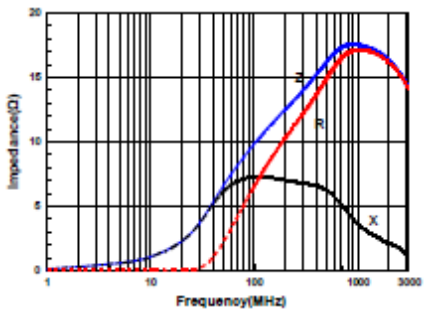

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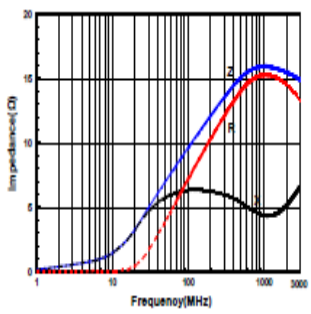

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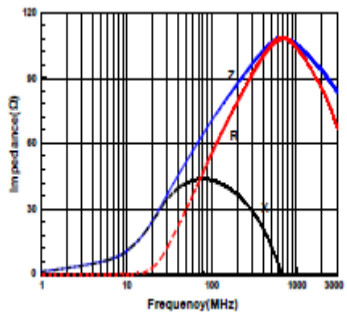

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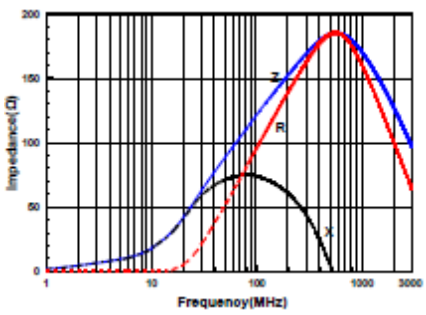

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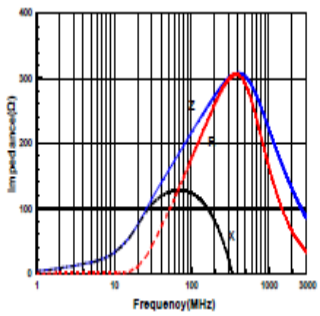

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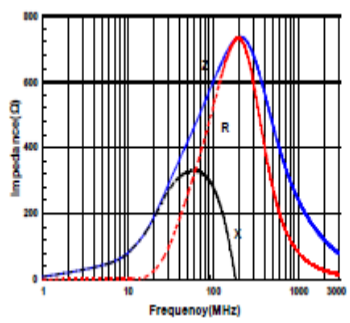
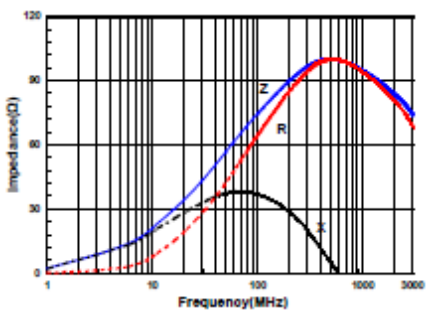


HPCB-FUU1005T700-1R2



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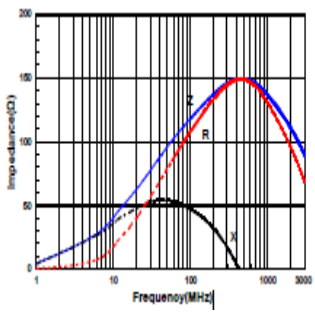

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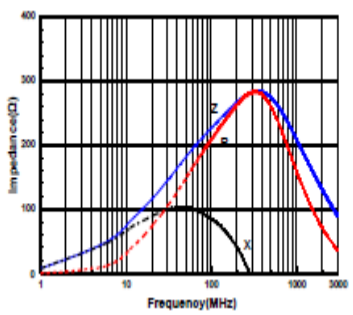

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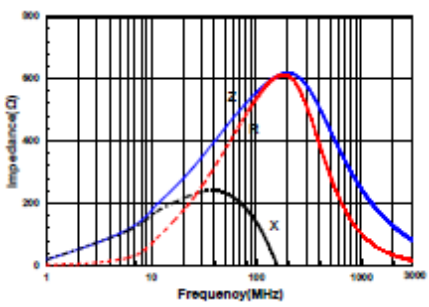
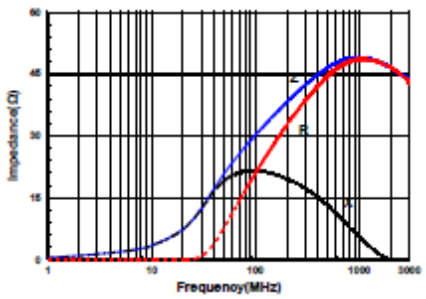


DETAIL ELECTRICAL CHARACTERISTICS

HPCB-1608 TYPE

HPCB-FDU1608T300-3R0



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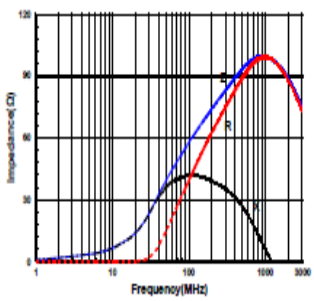

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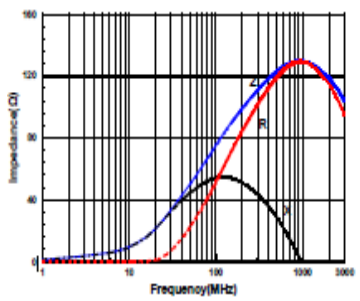

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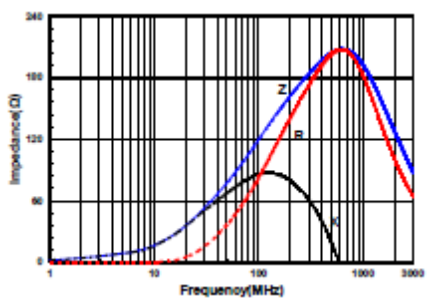

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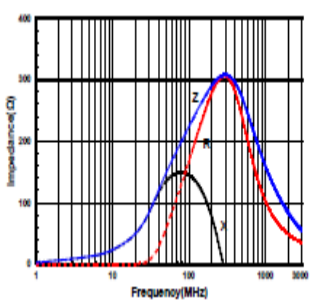

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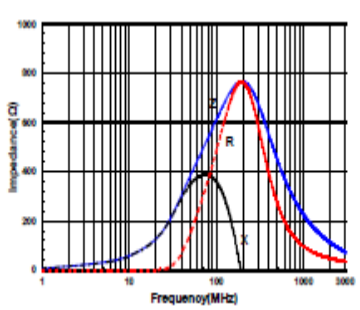
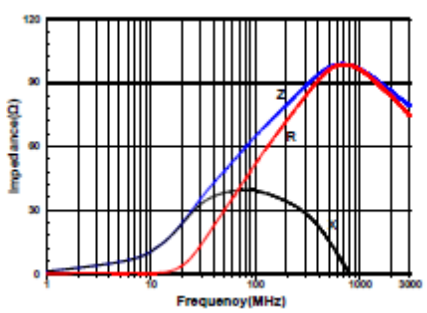
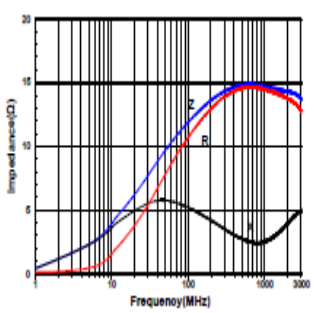


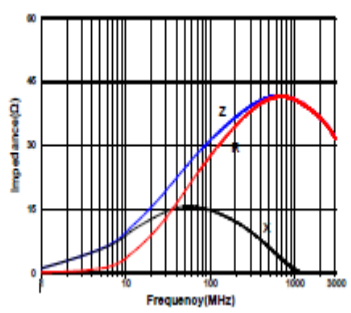
HPCB-FDU1608T600-1R4



HPCB-FUU1608T100-3R0



HPCB-FUU1608T300-3R0



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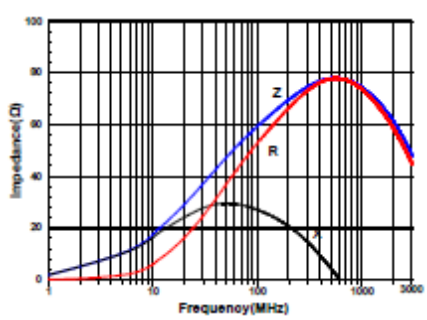

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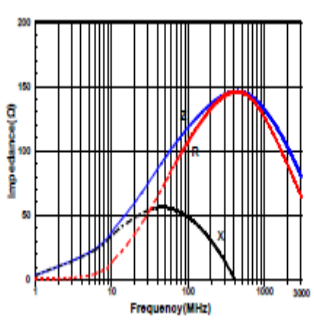

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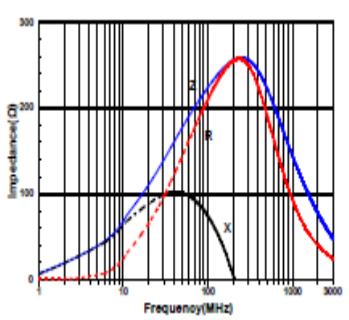
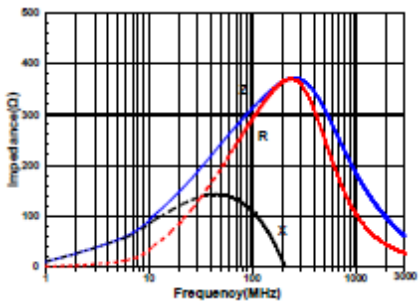


DETAIL ELECTRICAL CHARACTERISTICS

HPCB-1608 TYPE

HPCB-FUU1608T331-1R2



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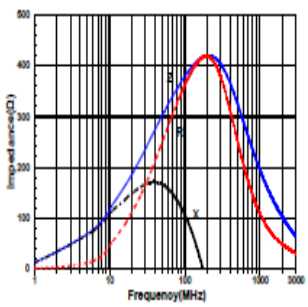

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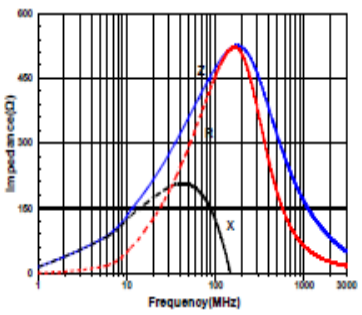
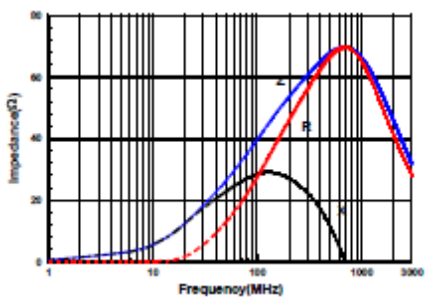


HPCB-2012 TYPE

HPCB-FDU2012T390-4R0



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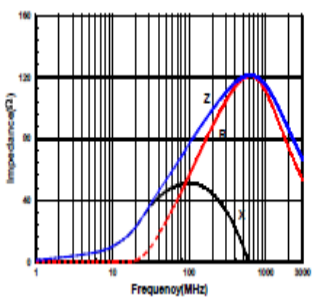

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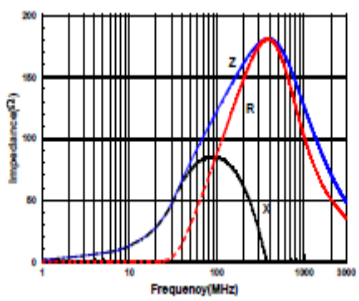

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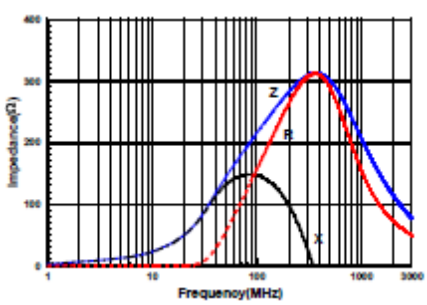

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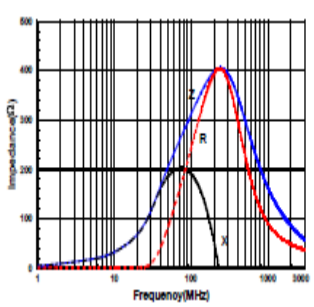
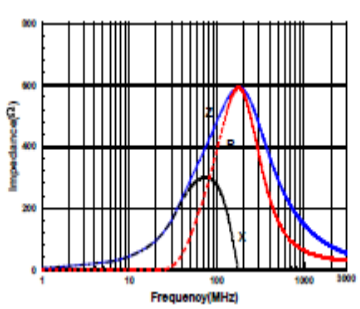
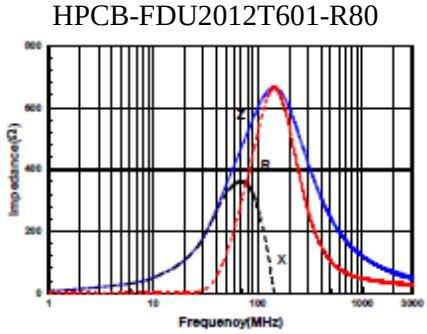


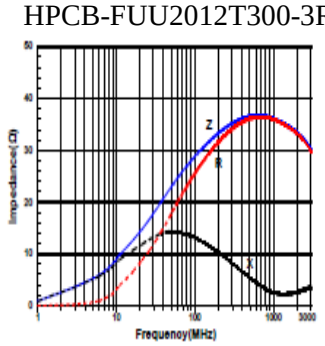
HPCB-FDU2012T471-R80



HPCB-FDU2012T601-R80



HPCB-FUU2012T300-3R0



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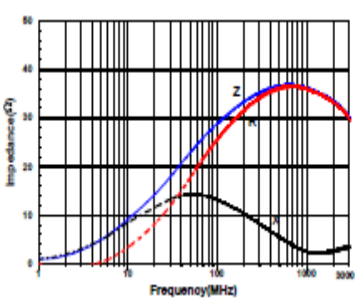
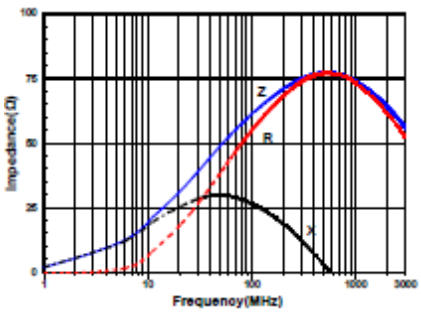


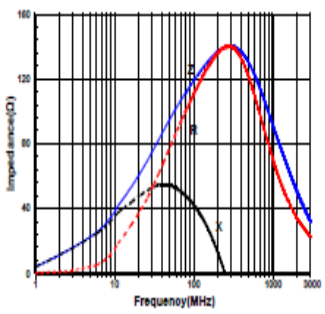
DETAIL ELECTRICAL CHARACTERISTICS

HPCB-2012 TYPE

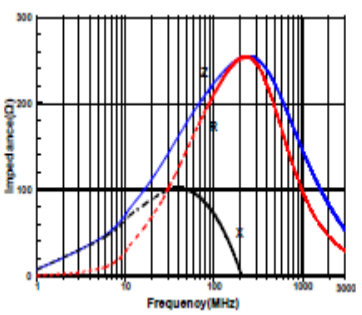
HPCB-FUU2012T600-3R0



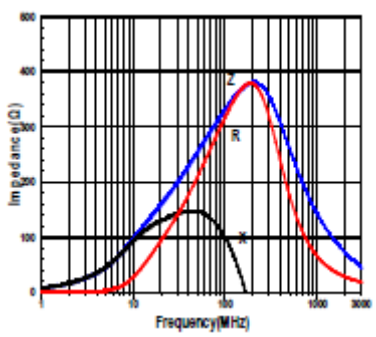
HPCB-FUU2012T121-2R5



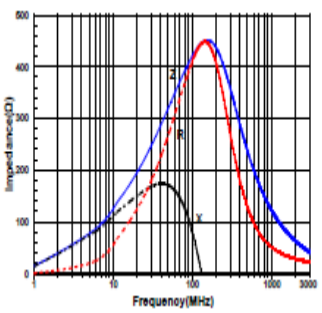
HPCB-FUU2012T221-2R0



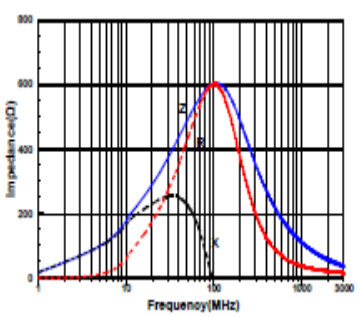
HPCB-FUU2012T331-1R5



HPCB-FUU2012T421-1R0

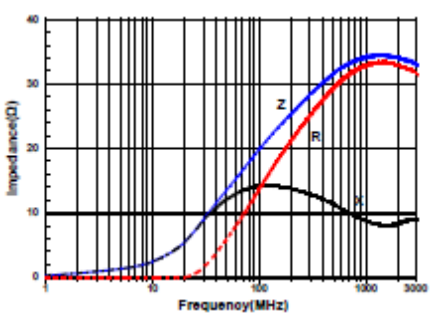


HPCB-FUU2012T601-R80

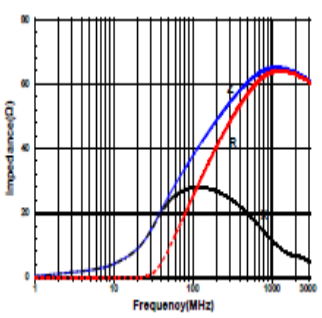


HPCB-3216 TYPE

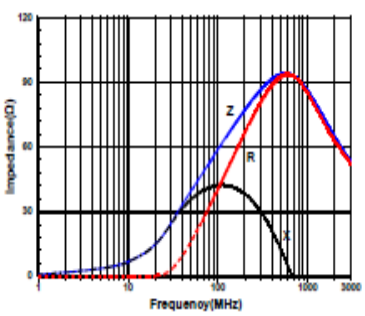
HPCB-FDU3216T190-6R0



HPCB-FDU3216T380-5R0



HPCB-FDU3216T600-4R0



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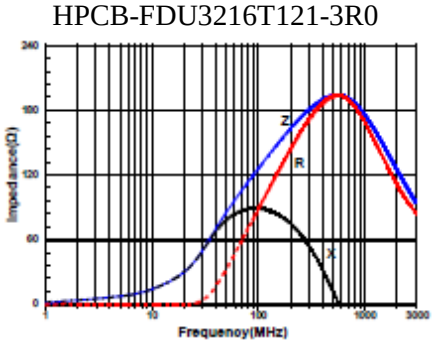
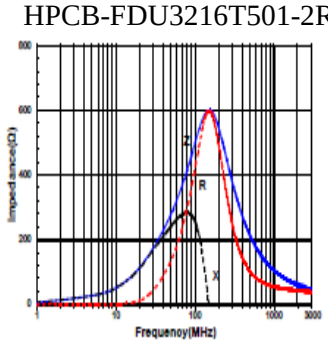


HPCB-FDU3216T501-2R0



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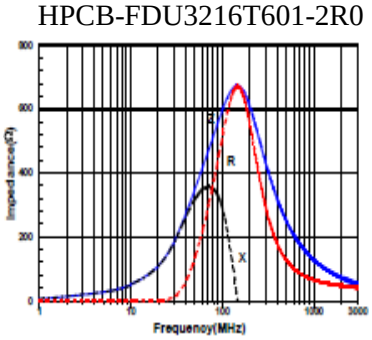
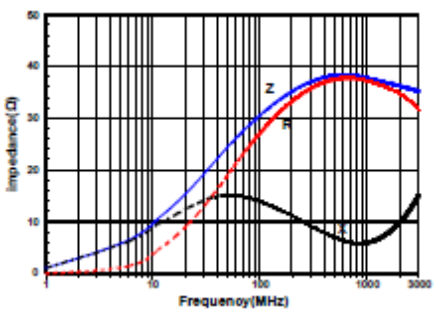


DETAIL ELECTRICAL CHARACTERISTICS

HPCB-3216 TYPE

HPCB-FUU3216T300-6R0



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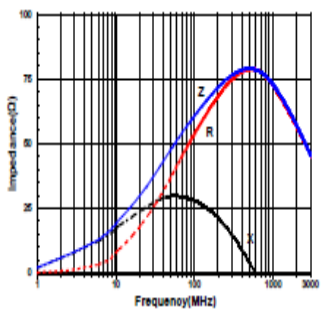

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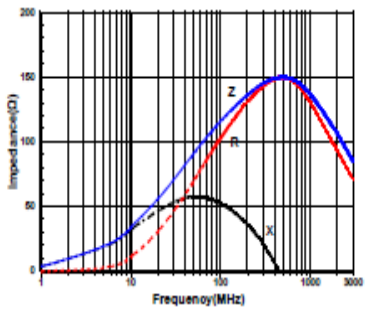
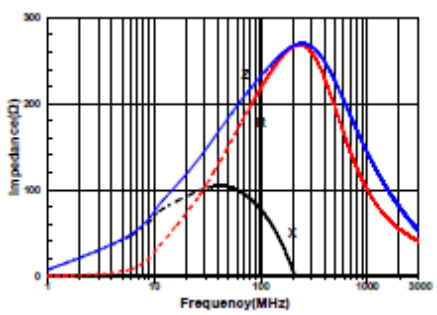


HPCB-FUU3216T221-2R0



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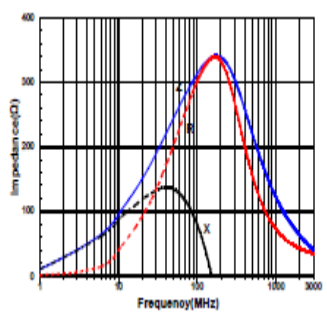
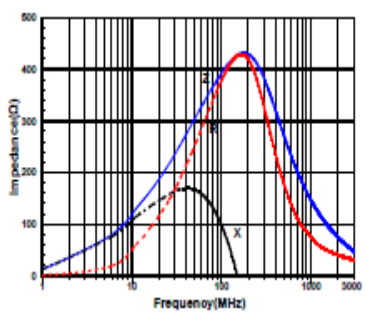
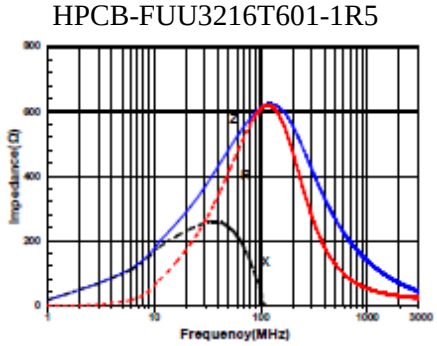


HPCB-FUU3216T391-2R0



HPCB-FUU3216T601-1R5



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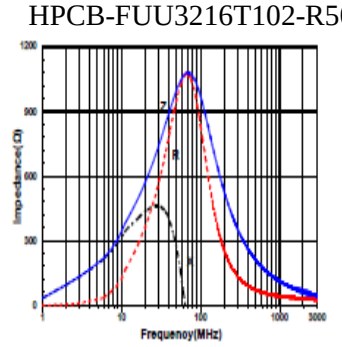
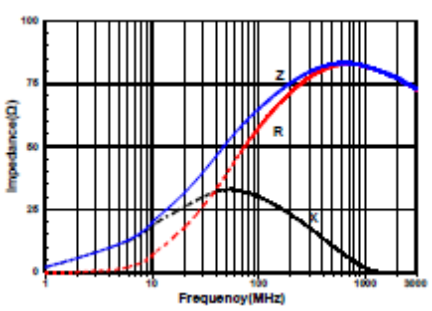
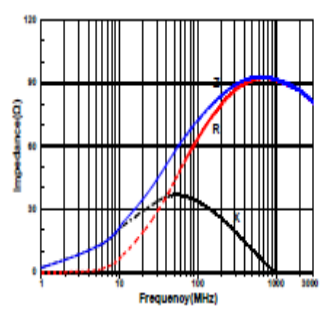


HPCB-4516 TYPE

HPCB-FUU4516T600-6R0



HPCB-FUU4516T720-6R0



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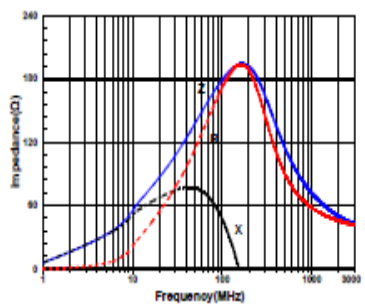

The data is reference only. Customers should verify actual device performance in their specific applications. Specifications are subject to change without notice.Please check our website for latest information. http:www.ftind.com

DETAIL ELECTRICAL CHARACTERISTICS

HPCB-4516 TYPE

HPCB-FUU4516T471-2R0