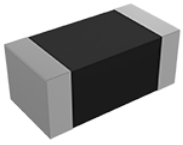
Multilayer Chip Ferrite Bead – HPZ Series

Operating Temp. : -55℃~+125℃



FEATURES

- Internal silver printed layers and magnetic shielded structures to minimize crosstalk
- Perfect effect for EMI suppression at high frequency (≥1GHz)
- Low DC resistance suitable for large current signals
- Four types material and wide range of impedance values for various applications

APPLICATIONS

- High frequency noise suppression in electric equipments such as computers and peripheral devices, DVD, cameras, LCD TVs, communication equipments, OA equipments, etc.

PRODUCT IDENTIFICATION

HPZ	1608	D	221	-R60	T	F	□□□
①	②	③	④	⑤	⑥	⑦	⑧

①

Type	
HPZ	Chip Ferrite Bead For High Frequency and Large Current

②

External Dimensions (L×W) (mm)	
0603 [0201]	0.6×0.3
1005 [0402]	1.0×0.5
1608 [0603]	1.6×0.8

③

Material Code
G, D, E, U

⑤

Rated Current	
R60	0.6A
1R0	1.0A

⑦

Hazardous Substance Free Products
F

④

Nominal Impedance	
Example	Nominal Value
221	220Ω
102	1000Ω

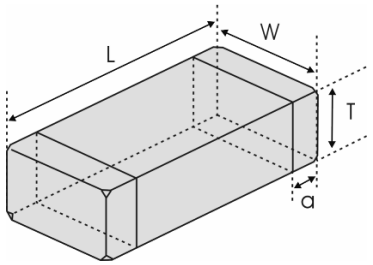
⑥

Packing	
T	Tape & Reel

⑧

Design Code	
□□□	Design Code
* Standard product is blank	

SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
HPZ0603 [0201]	0.6±0.05 [.024±.002]	0.3±0.05 [.012±.002]	0.3±0.05 [.012±.002]	0.15±0.05 [.006±.002]
HPZ1005 [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]
HPZ1608 [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]

SPECIFICATIONS

HPZ0603 TYPE

Part Number	Impedance		Max. DC Resistance	Max. Rated Current	Thickness
	@100MHz	@1GHz Min.			
Units	Ω		Ω	mA	mm [inch]
Symbol	Z		DCR	Ir	T
HPZ0603E250-R60TF	25±25%	63	0.26	600	0.3±0.05 [.012±.002]
HPZ0603E500-R40TF	50±25%	153	0.58	400	

HPZ1005 TYPE

Part Number	Impedance		Max. DC Resistance	Max. Rated Current	Thickness
	@100MHz	@1GHz Min.			
Units	Ω		Ω	mA	mm [inch]
Symbol	Z		DCR	Ir	T
HPZ1005D121-R60TF	120±25%	100	0.25	600	0.5±0.15 [.020±.006]
HPZ1005D221-R50TF	220±25%	300	0.38	500	
HPZ1005U121-R60TF	120±25%	100	0.25	600	
HPZ1005U121-1R1TF	120±25%	100	0.13	1100	
HPZ1005U221-R50TF	220±25%	200	0.38	500	
HPZ1005U221-R70TF	220±25%	250	0.25	700	

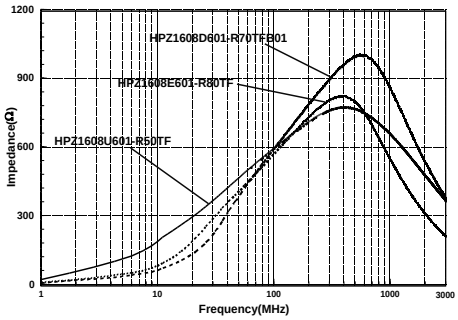
HPZ1608 TYPE

Part Number	Impedance		Max. DC Resistance	Max. Rated Current	Thickness
	@100MHz	@1GHz Min.			
Units	Ω		Ω	mA	mm [inch]
Symbol	Z		DCR	Ir	T
HPZ1608G121-R90TFB01	120±25%	500	0.13	900	0.8±0.15 [.031±.006]
HPZ1608D121-1R5TF	120±25%	200	0.07	1500	
HPZ1608D151-R80TF	150±25%	200	0.20	800	
HPZ1608D151-1R5TF	150±25%	200	0.07	1500	
HPZ1608D221-R60TF	220±25%	300	0.25	600	
HPZ1608D221-1R2TF	220±25%	300	0.12	1200	
HPZ1608D331-R90TFB01	330±25%	380	0.15	900	
HPZ1608D391-R70TF	390±25%	600	0.18	700	
HPZ1608D471-R70TFB02	470±25%	550	0.22	700	
HPZ1608D601-R70TFB01	600±25%	750	0.24	700	
HPZ1608D102-R60TF	1000±25%	1000	0.35	600	
HPZ1608E601-R80TF	600±25%	500	0.25	800	
HPZ1608E102-R60TF	1000±25%	600	0.35	600	
HPZ1608E152-R50TF	1500±25%	1000	0.50	500	
HPZ1608U101-R80TF	100±25%	100	0.20	800	
HPZ1608U101-2R0TF	100±25%	100	0.055	2000	
HPZ1608U121-2R0TF	120±25%	110	0.055	2000	
HPZ1608U221-R60TF	220±25%	220	0.25	600	
HPZ1608U471-R50TF	470±25%	400	0.32	500	
HPZ1608U601-R50TF	600±25%	450	0.35	500	
HPZ1608U102-R15TF	1000±25%	750	0.90	150	

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

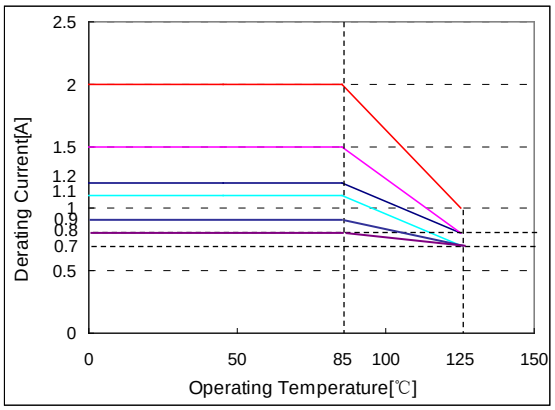
TYPICAL ELECTRICAL CHARACTERISTICS

D, E, U Material Comparison



Rated Current

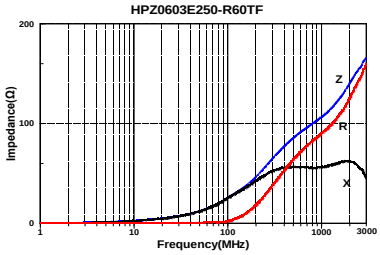
When operating temperatures exceed +85℃, derating of current is necessary for chip ferrite beads for which rated current is 800mA and over. Please apply the derating curve shown in chart according to the operating temperature.



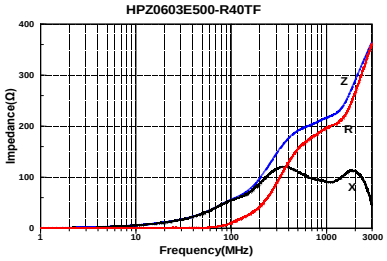
DETAIL ELECTRICAL CHARACTERISTICS

HPZ0603 TYPE

HPZ0603E250-R60TF

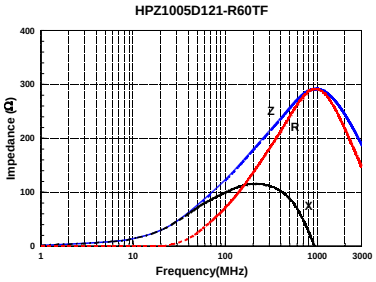


HPZ0603E500-R40TF

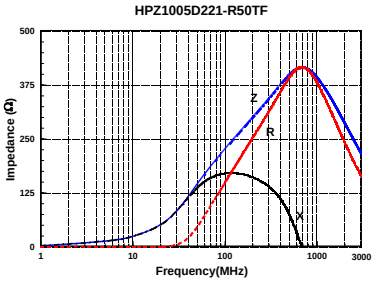


HPZ1005 TYPE

HPZ1005D121-R60TF



HPZ1005D221-R50TF



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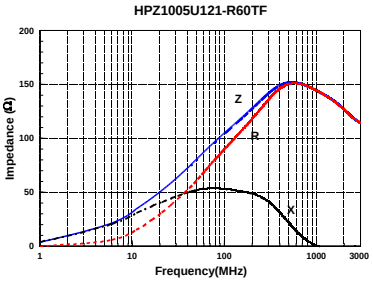

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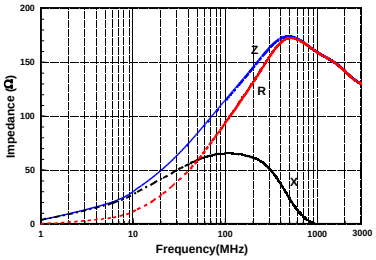

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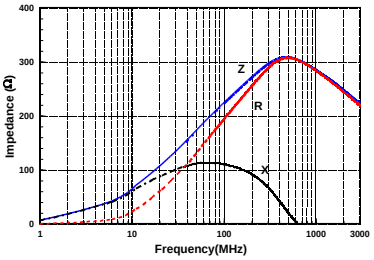

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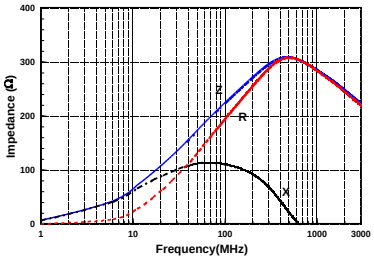
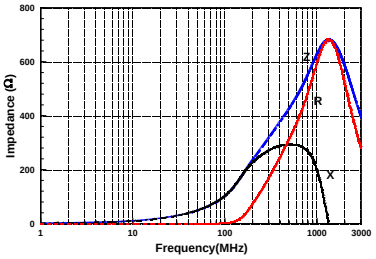
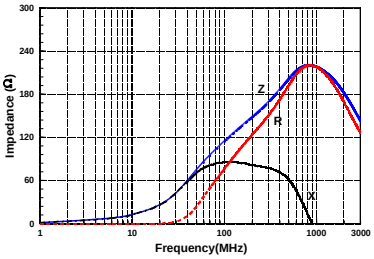


HPZ1608 TYPE

HPZ1608G121-R90TFB01



HPZ1608D121-1R5TF



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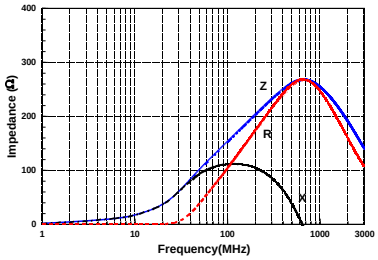
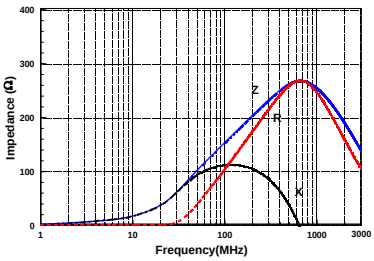


DETAIL ELECTRICAL CHARACTERISTICS

HPZ1608 TYPE

HPZ1608D151-1R5TF



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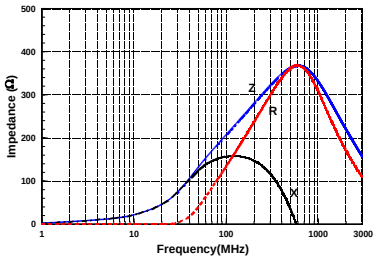

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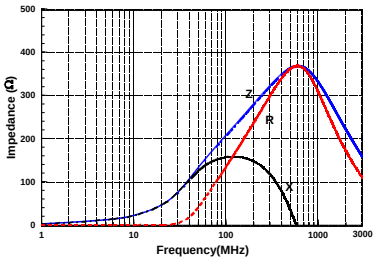

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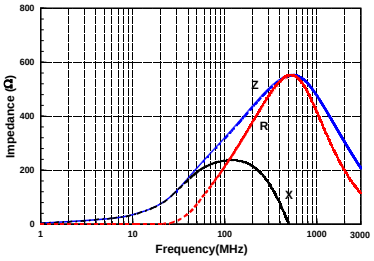

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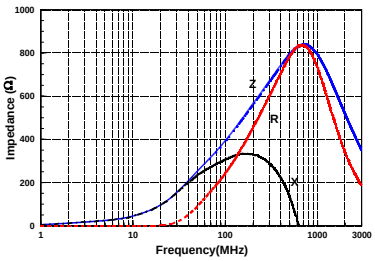

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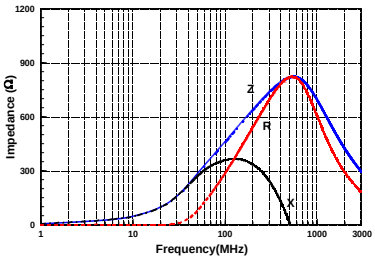

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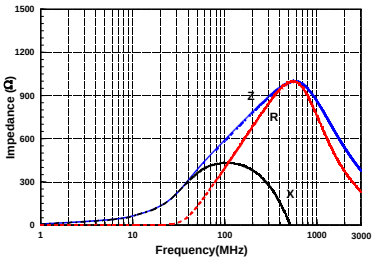

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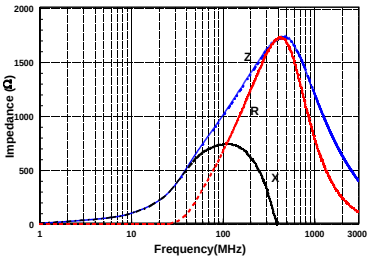

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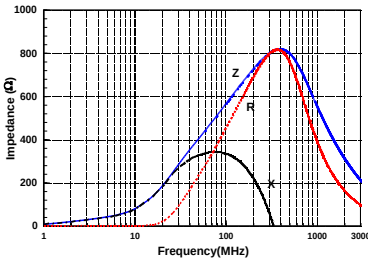

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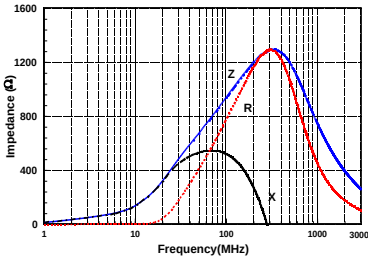

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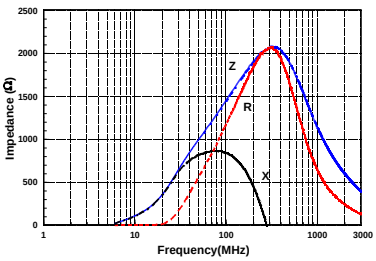

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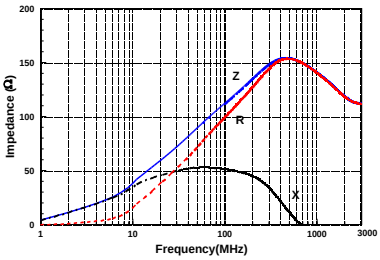

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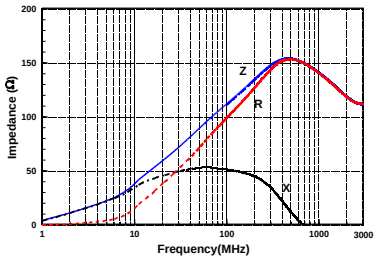

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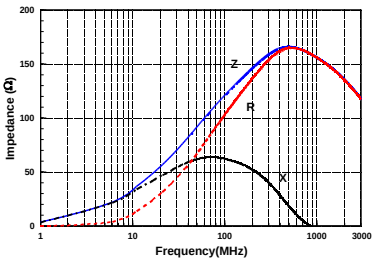

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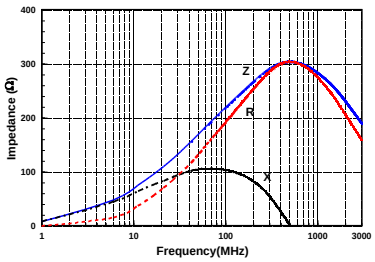

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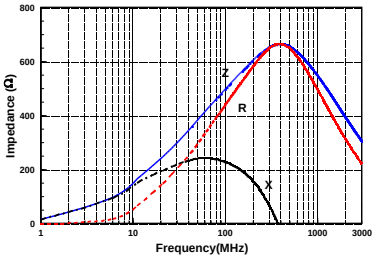

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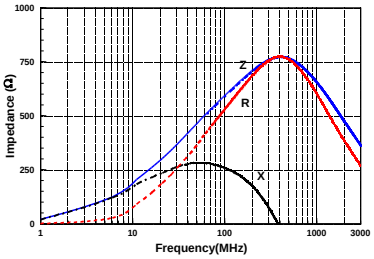
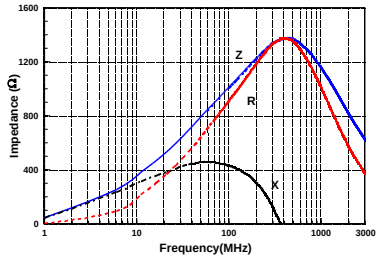
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