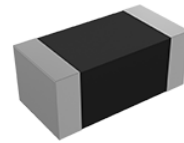


# Multilayer Chip Ferrite Bead – HPZ Series

Operating Temp. : -55°C~+125°C



## FEATURES

- Internal silver printed layers and magnetic shielded structures to minimize crosstalk
- Perfect effect for EMI suppression at high frequency ( $\geq 1\text{GHz}$ )
- 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**

①

**1608**

②

**D**

③

**221**

④

**-R60**

⑤

**T**

⑥

**F**

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

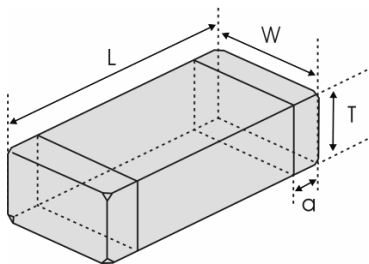
⑥

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	$\Omega$		$\Omega$	mA	mm [inch]
Symbol	Z		DCR	I <sub>r</sub>	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	$\Omega$		$\Omega$	mA	mm [inch]
Symbol	Z		DCR	I <sub>r</sub>	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	

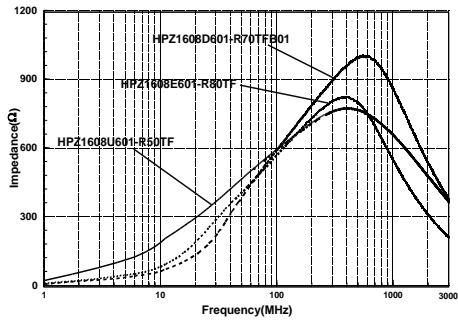
### HPZ1608 TYPE

Part Number	Impedance		Max. DC Resistance	Max. Rated Current	Thickness
	@100MHz	@1GHz Min.			
Units	$\Omega$		$\Omega$	mA	mm [inch]
Symbol	Z		DCR	I <sub>r</sub>	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.

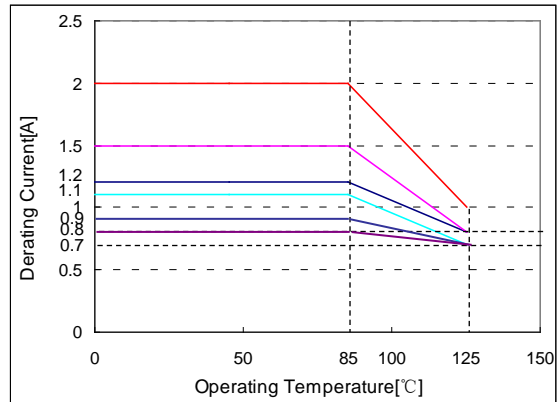
# TYPICAL ELECTRICAL CHARACTERISTICS

## D, E, U Material Comparison



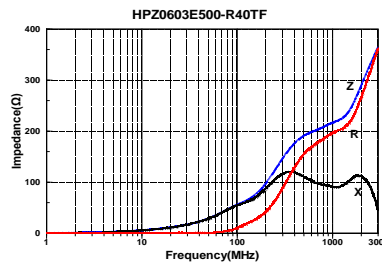
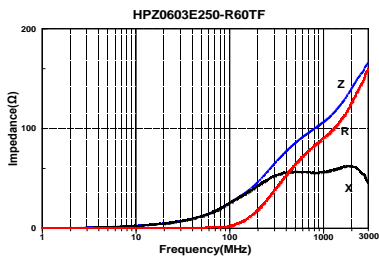
## Rated Current

When operating temperatures exceed +85°C, 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.

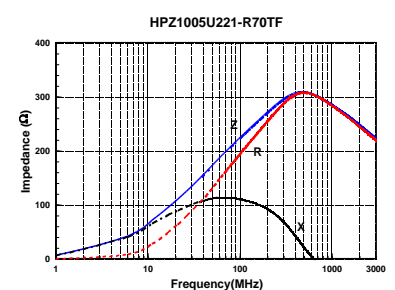
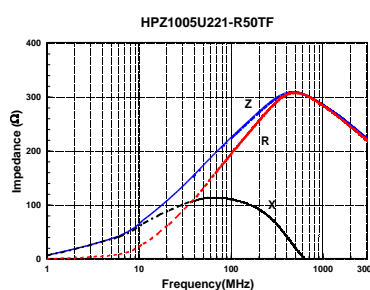
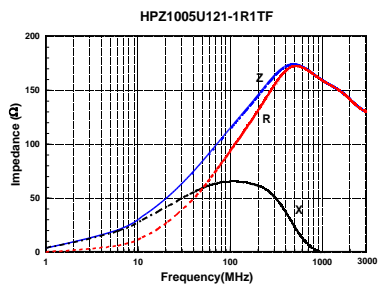
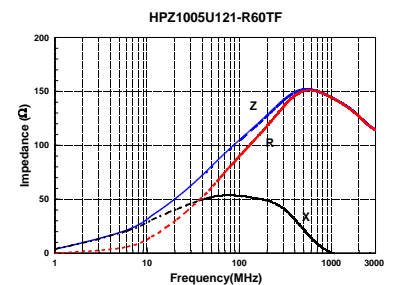
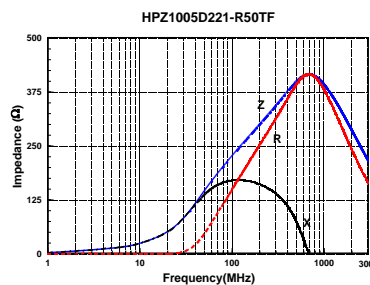
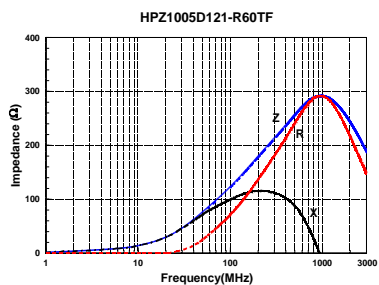


# DETAIL ELECTRICAL CHARACTERISTICS

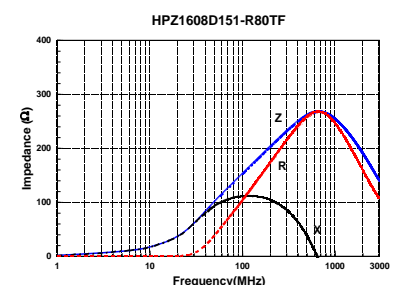
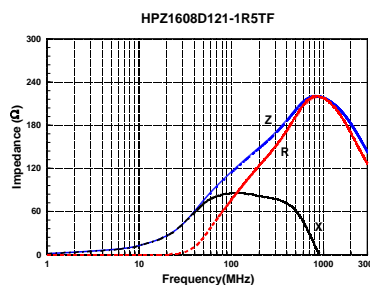
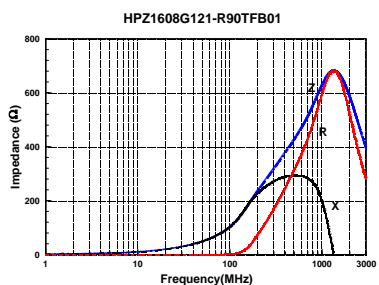
## HPZ0603 TYPE



## HPZ1005 TYPE

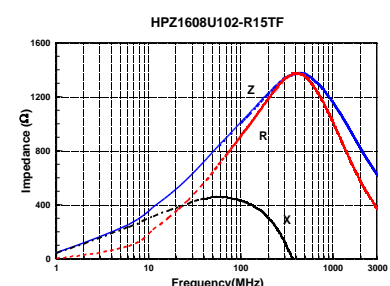
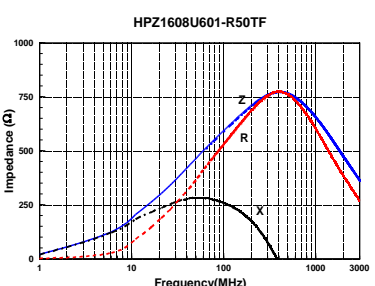
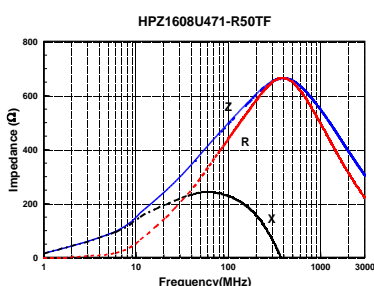
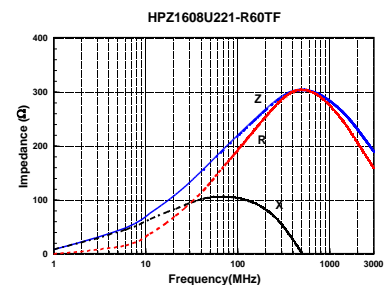
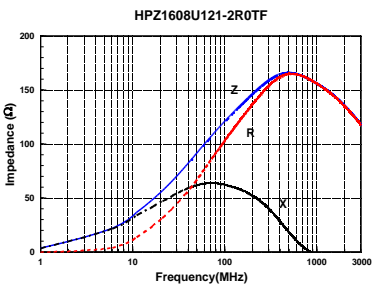
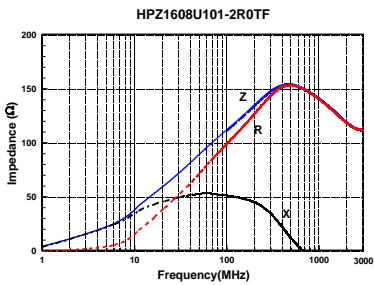
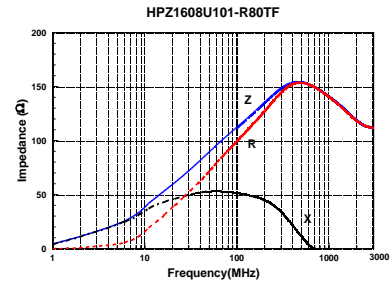
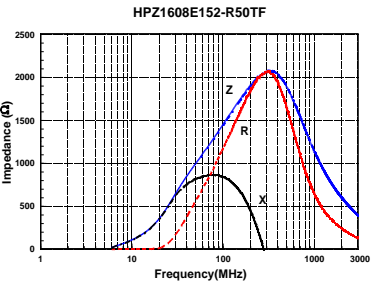
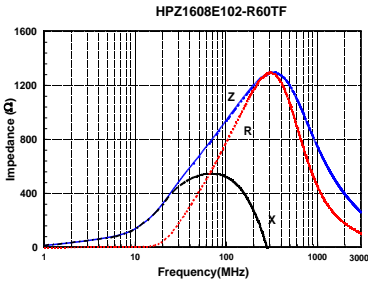
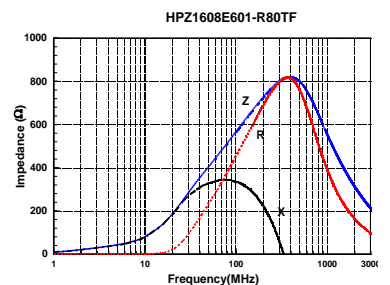
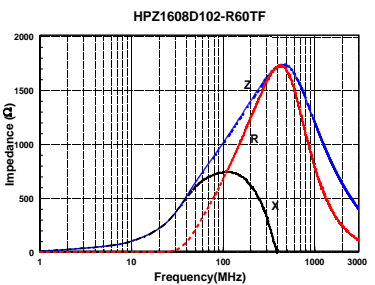
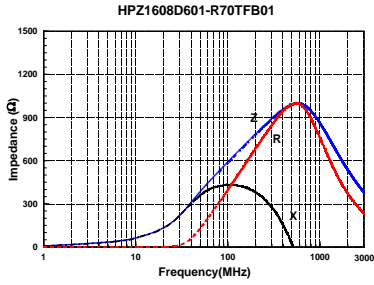
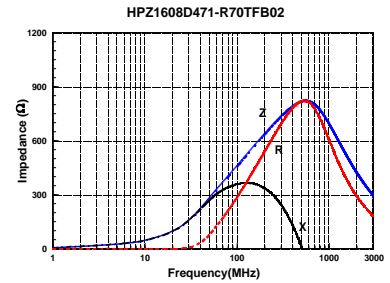
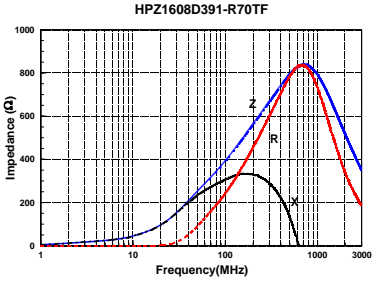
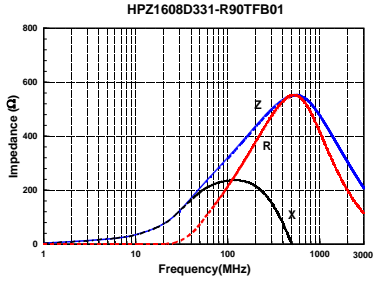
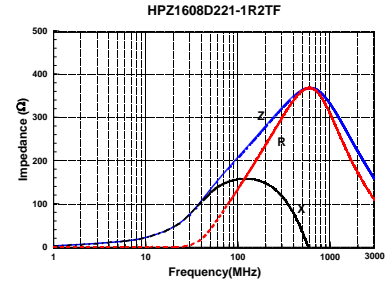
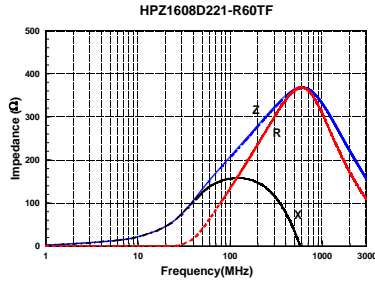
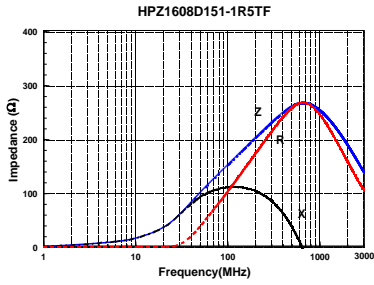


## HPZ1608 TYPE



# DETAIL ELECTRICAL CHARACTERISTICS

## HPZ1608 TYPE



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