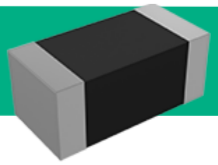
Multilayer Chip Ferrite Bead – GZ Series



Operating Temp

- -55℃ ~+125℃

Features

- Internal silver printed layers and magnetic shielded structures to minimize crosstalk
- Can be used in a wide range of frequency (from dozens of MHz to hundreds of MHz) to suppress EMI
- Three types material and wide range of impedance values for various applications

Applications

- Noise suppression for low speed signal of electric equipments such as computers and peripheral devices, smart wearable device, LCD TVs, communication equipments, OA equipments, etc.

Product Identification

1	2	3	4	5	6	7
GZ	3216	D	121	T	F	(A99)

1	Type	
	GZ	Chip Ferrite Bead for General Use

2	External Dimensions (L×W) (mm)	
	0603 [0201]	0.6×0.3
	1005 [0402]	1.0×0.5
	1608 [0603]	1.6×0.8
	2012 [0805]	2.0×1.25
	3216 [1206]	3.2×1.6

3	Material Code
	D, E, U

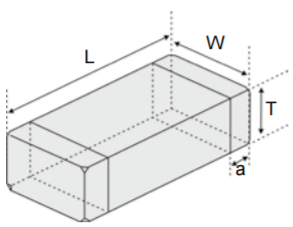
4	Nominal Impedance	
	Example	Nominal Value
	300	30Ω
	121	120Ω
	102	1000Ω

5	Packing	
	T	Tape & Reel

6	Hazardous Substance Free Products
	F

7	Internal Code
	A99

Shape and Dimensions



Unit: mm [inch]

Type	L	W	T	a
GZ0603 [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]
GZ1005 [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]
GZ1608 [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]
GZ2012 [0805]	2.0 (+0.3, -0.1) [.079 (+.012, -.004)]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]
GZ3216 [1206]	3.2±0.2 [.126±.008]	1.6±0.2 [.063±.008]	0.85±0.2 [0.033±0.008] 1.1±0.2 [0.043±0.008]	0.5±0.3 [.020±.012]

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Specifications

GZ0603 TYPE

Part Number	Impedance	Z Test Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	Ω	MHz	Ω	mA	mm [inch]
Symbol	Z	Freq.	DCR	Ir	T
GZ0603D600TF	60±25%	100	0.40	200	0.3±0.05 [.012±.002]
GZ0603D750TF	75±25%	100	0.40	200	
GZ0603D800TF	80±25%	100	0.60	200	
GZ0603D121TF	120±25%	100	0.80	200	
GZ0603D241TF	240±25%	100	1.00	200	
GZ0603D471TF	470±25%	100	1.40	200	
GZ0603D601TF	600±25%	100	1.70	200	
GZ0603D102TF	1000±25%	100	2.50	100	
GZ0603U100TF	5~15	100	0.10	500	
GZ0603U700TF	70±25%	100	0.40	200	
GZ0603U800TF	80±25%	100	0.40	200	
GZ0603U121TF	120±25%	100	0.50	200	
GZ0603U241TF	240±25%	100	0.80	200	
GZ0603U601TF	600±25%	100	1.50	100	
GZ0603U102TF	1000±25%	100	2.50	100	

GZ1005 TYPE

Part Number	Impedance	Z Test Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	Ω	MHz	Ω	mA	mm [inch]
Symbol	Z	Freq.	DCR	Ir	T
GZ1005D100TF	0~15	100	0.05	500	0.5±0.15 [.020±.006]
GZ1005D310TF	31±25%	100	0.20	300	
GZ1005D600TF	60±25%	100	0.30	200	
GZ1005D800TF	80±25%	100	0.35	200	
GZ1005D121TF	120±25%	100	0.40	200	
GZ1005D221TF	220±25%	100	0.45	150	
GZ1005D301TF	300±25%	100	0.50	100	
GZ1005D421TF	420±25%	100	0.60	100	
GZ1005D501TF	500±25%	100	0.80	100	
GZ1005D601TF	600±25%	100	0.90	100	
GZ1005D751TF	750±25%	100	1.00	100	
GZ1005D102TF	1000±25%	100	1.20	100	
GZ1005D152TF	1500±25%	100	1.60	100	
GZ1005D182TF	1800±25%	100	2.00	50	
GZ1005E800TF	80±25%	100	0.35	200	
GZ1005E121TF	120±25%	100	0.40	200	
GZ1005E241TF	240±25%	100	0.50	200	
GZ1005E601TF	600±25%	100	0.90	100	
GZ1005U100TF	0~15	100	0.05	500	
GZ1005U300TF	30±25%	100	0.20	300	
GZ1005U700TF	70±25%	100	0.30	200	
GZ1005U121TF	120±25%	100	0.40	200	
GZ1005U221TF	220±25%	100	0.50	100	
GZ1005U301TF	300±25%	100	0.60	100	
GZ1005U421TF	420±25%	100	0.80	100	
GZ1005U601TF	600±25%	100	0.90	100	
GZ1005U102TF	1000±25%	100	1.20	100	

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Specifications

GZ1608 TYPE

Part Number	Impedance	Z Test Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	Ω	MHz	Ω	mA	mm [inch]
Symbol	Z	Freq.	DCR	Ir	T
GZ1608D110TF	0~15	100	0.05	2000	0.8±0.15 [.031±.006]
GZ1608D300TF	30±25%	100	0.05	2000	
GZ1608D600TF	60±25%	100	0.10	500	
GZ1608D800TF	80±25%	100	0.15	400	
GZ1608D101TF	100±25%	100	0.20	300	
GZ1608D121TF	120±25%	100	0.20	300	
GZ1608D221TF	220±25%	100	0.30	300	
GZ1608D301TF	300±25%	100	0.35	200	
GZ1608D471TF	470±25%	100	0.45	200	
GZ1608D601TF	600±25%	100	0.45	200	
GZ1608D751TF	750±25%	100	0.50	200	
GZ1608D102TF	1000±25%	100	0.60	200	
GZ1608D152TF	1500±25%	100	0.70	150	
GZ1608D182TF	1800±25%	100	0.90	100	
GZ1608D202TF	2000±25%	100	1.20	100	
GZ1608D222TF	2200±25%	100	1.20	100	
GZ1608D252TF	2500±25%	100	1.20	100	
GZ1608E121TF	120±25%	100	0.20	300	
GZ1608E181TF	180±25%	100	0.30	300	
GZ1608E601TF	600±25%	100	0.45	200	
GZ1608E102TF	1000±25%	100	0.60	200	
GZ1608U100TF	0~15	100	0.05	2000	
GZ1608U300TF	30±25%	100	0.05	2000	
GZ1608U600TF	60±25%	100	0.10	500	
GZ1608U121TF	120±25%	100	0.20	300	
GZ1608U221TF	220±25%	100	0.30	300	
GZ1608U301TF	300±25%	100	0.35	200	
GZ1608U471TF	470±25%	100	0.40	200	
GZ1608U601TF	600±25%	100	0.50	200	
GZ1608U102TF	1000±25%	100	0.60	200	

GZ2012 TYPE

Part Number	Impedance	Z Test Frequency	Max. DC Resistance	Max.Rated Current	Thickness
Units	Ω	MHz	Ω	mA	mm [inch]
Symbol	Z	Freq.	DCR	Ir	T
GZ2012D070TF	0~15	100	0.04	2000	0.85±0.2 [.033±.008]
GZ2012D190TF	19±25%	100	0.04	2000	
GZ2012D300TF	30±25%	100	0.05	1500	
GZ2012D800TF	80±25%	100	0.10	1000	
GZ2012D121TF	120±25%	100	0.15	800	
GZ2012D181TF	180±25%	100	0.18	700	
GZ2012D221TF	220±25%	100	0.20	600	
GZ2012D301TF	300±25%	100	0.20	500	
GZ2012D421TF	420±25%	100	0.30	500	
GZ2012D501TF	500±25%	100	0.30	500	
GZ2012D601TF	600±25%	100	0.30	500	
GZ2012D751TF	750±25%	100	0.35	500	
GZ2012D102TF	1000±25%	100	0.35	500	
GZ2012D152TF	1500±25%	100	0.40	500	

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Specifications

GZ2012 TYPE

Part Number	Impedance	Z Test Frequency	Max. DC Resistance	Max.Rated Current	Thickness
Units	Ω	MHz	Ω	mA	mm [inch]
Symbol	Z	Freq.	DCR	Ir	T
GZ2012D202TF	2000±25%	100	0.50	500	0.85±0.2 [.033±.008]
GZ2012D252TF	2500±25%	100	0.70	200	
GZ2012E800TF	80±25%	100	0.10	1000	
GZ2012E181TF	180±25%	100	0.20	600	
GZ2012E301TF	300±25%	100	0.20	500	
GZ2012E501TF	500±25%	100	0.30	500	
GZ2012E601TF	600±25%	100	0.30	500	
GZ2012E102TF	1000±25%	100	0.35	500	
GZ2012U100TF	0~15	100	0.04	2200	
GZ2012U170TF	17±25%	100	0.04	2000	
GZ2012U300TF	30±25%	100	0.05	1500	
GZ2012U700TF	70±25%	100	0.10	1000	
GZ2012U121TF	120±25%	100	0.15	800	
GZ2012U221TF	220±25%	100	0.20	600	
GZ2012U301TF	300±25%	100	0.20	500	
GZ2012U421TF	420±25%	100	0.25	500	
GZ2012U601TF	600±25%	100	0.30	500	
GZ2012U102TF	1000±25%	100	0.40	500	

GZ3216 TYPE

Part Number	Impedance	Z Test Frequency	Max. DC Resistance	Max.Rated Current	Thickness
Units	Ω	MHz	Ω	mA	mm [inch]
Symbol	Z	Freq.	DCR	Ir	T
GZ3216D000TF	0~15	100	0.03	2200	0.85±0.2 [.033±.008]
GZ3216D310TF	31±25%	100	0.05	2000	
GZ3216D600TF	60±25%	100	0.10	1000	
GZ3216D301TF	300±25%	100	0.20	600	
GZ3216D100TFA99	0~15	100	0.05	2000	1.10±0.2 [0.043±0.008]
GZ3216D190TFA99	19±25%	100	0.05	2000	
GZ3216D800TFA99	80±25%	100	0.10	1000	
GZ3216D101TFA99	100±25%	100	0.10	1000	
GZ3216D121TFA99	120±25%	100	0.10	1000	
GZ3216D151TFA99	150±25%	100	0.15	800	
GZ3216D221TFA99	220±25%	100	0.20	600	
GZ3216D501TFA99	500±25%	100	0.30	600	
GZ3216D601TFA99	600±25%	100	0.30	600	
GZ3216D102TFA99	1000±25%	100	0.60	500	
GZ3216D122TFA99	1200±25%	100	0.60	300	
GZ3216U601TFA99	600±25%	100	0.30	600	

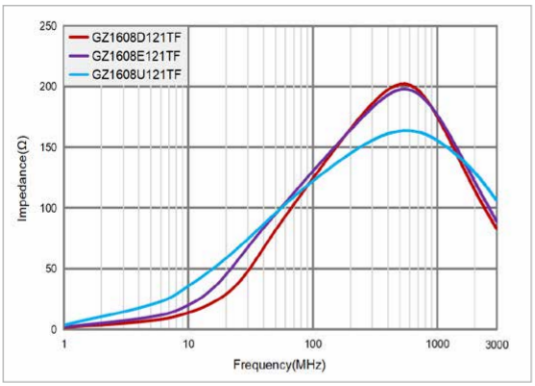
※: Products with other Electrical Characteristics can be provided upon customer's request. Please contact your local sales.

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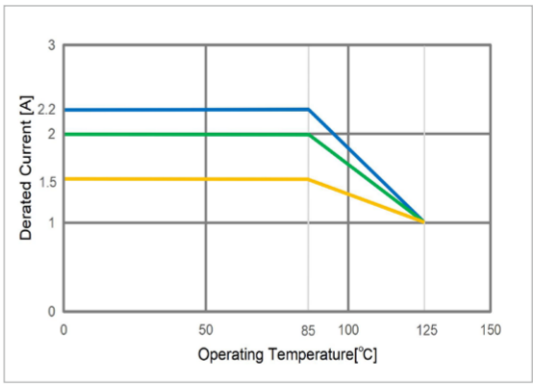
Typical Electrical Characteristics

D, E, U Material Comparison



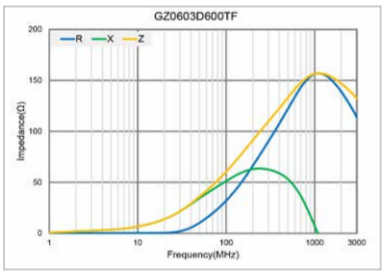
Rated Current

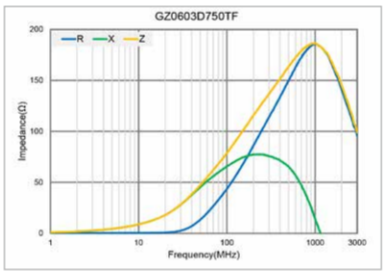
When operating temperatures exceeding +85 ℃ , derating of current is necessary for chip ferrite beads for which rated current is 1000mA over. Please apply the derating curve shown in chart according to the operating temperature.

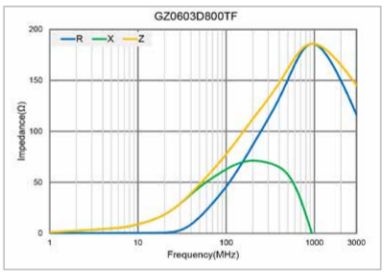


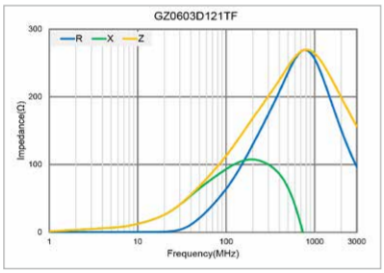
Detail Electrical Characteristics

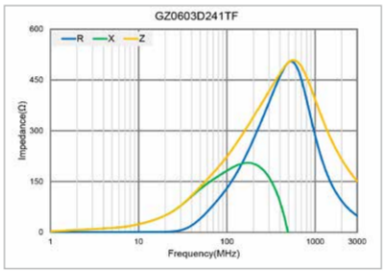
GZ0603 TYPE

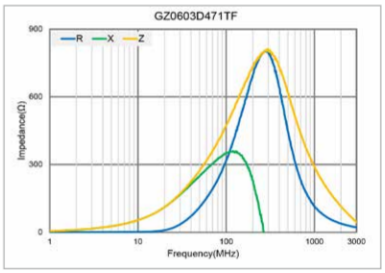


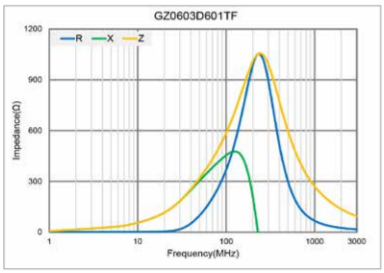


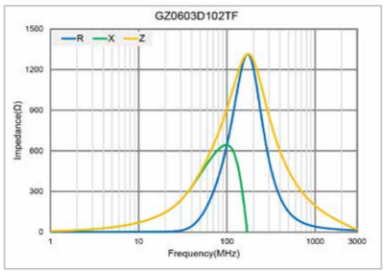


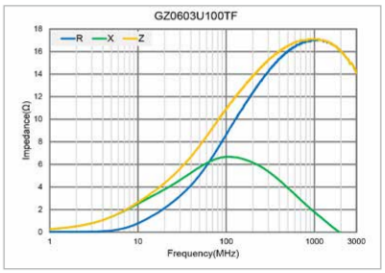


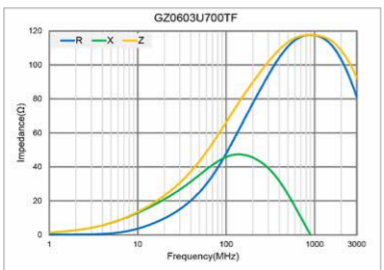


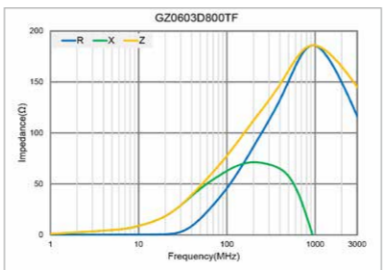


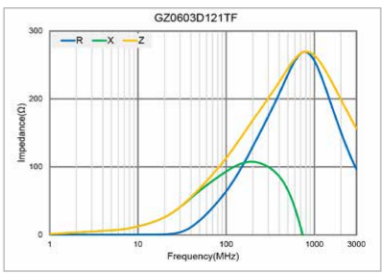








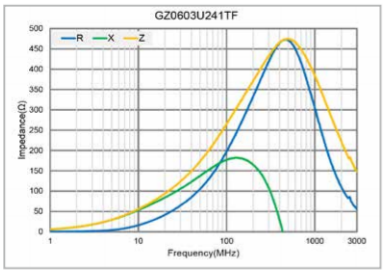


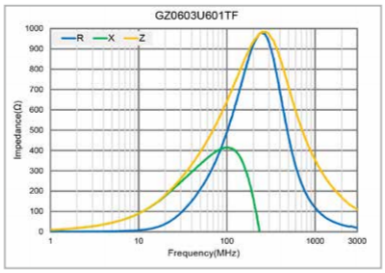


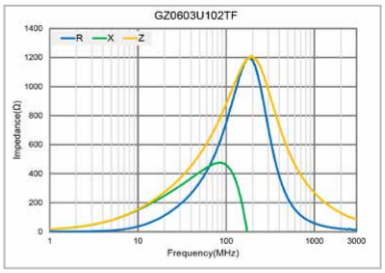
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Detail Electrical Characteristics

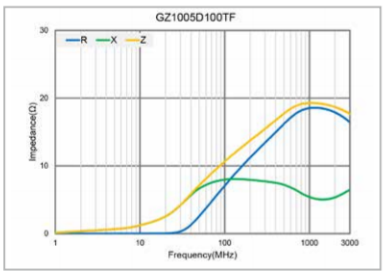
GZ0603 TYPE

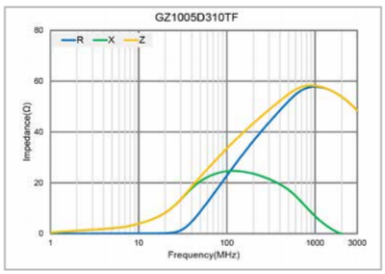


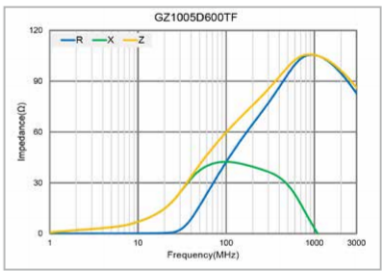


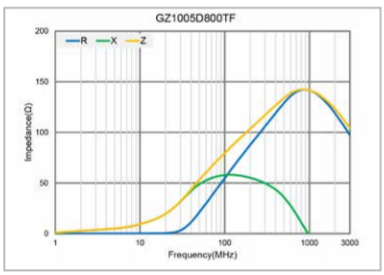


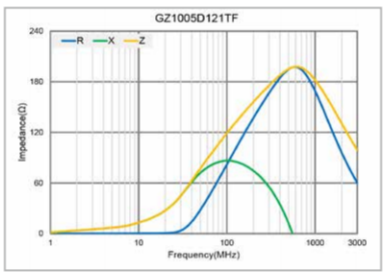
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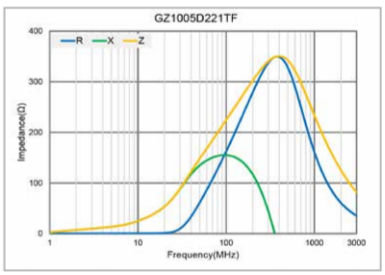


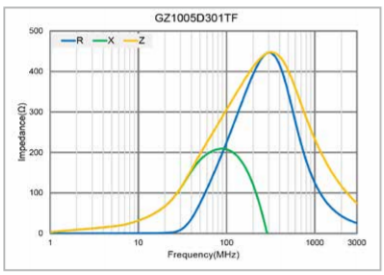


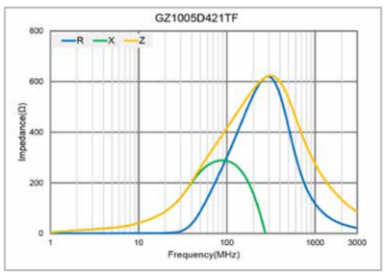


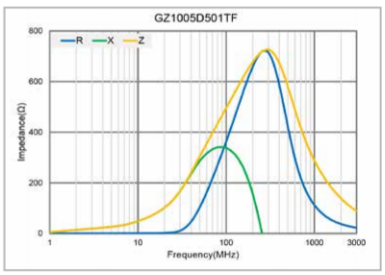


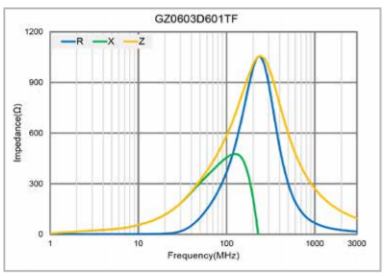


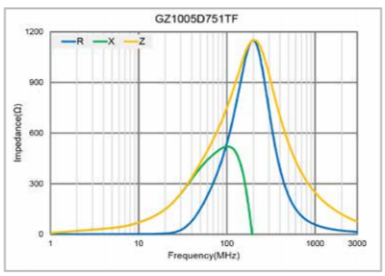


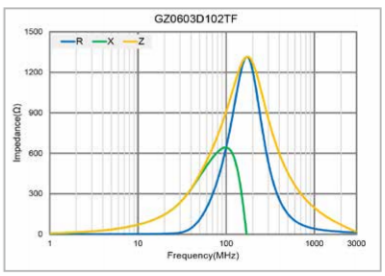










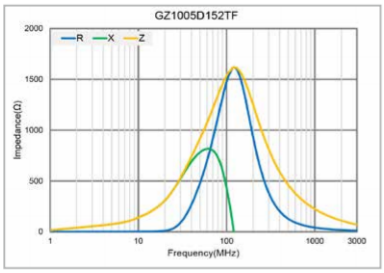


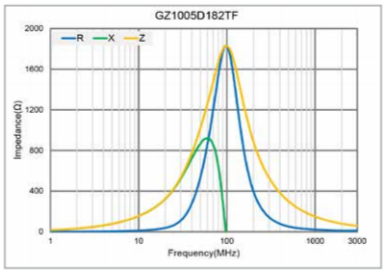
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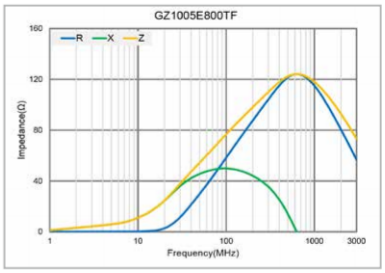
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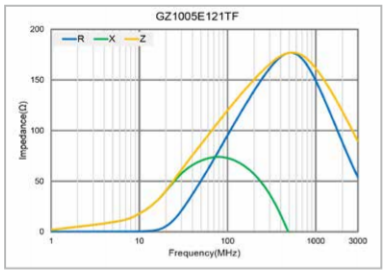
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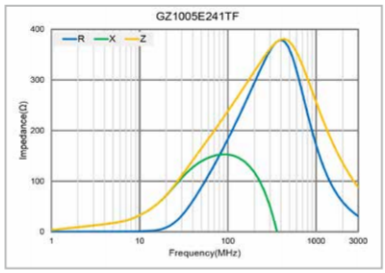
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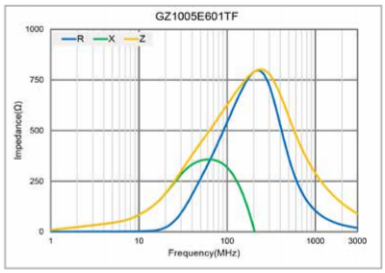


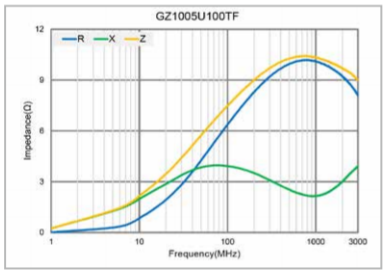


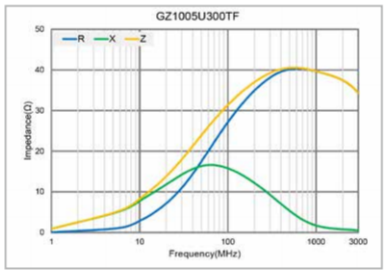


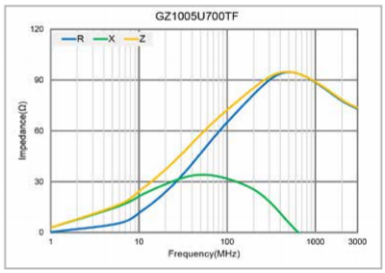


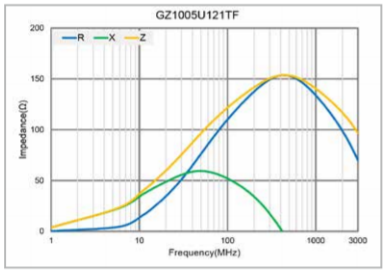


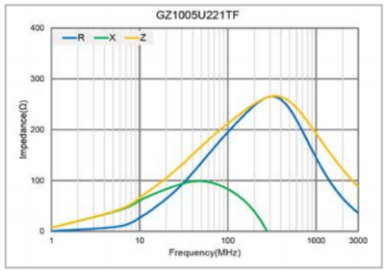


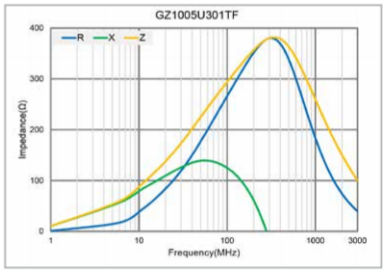


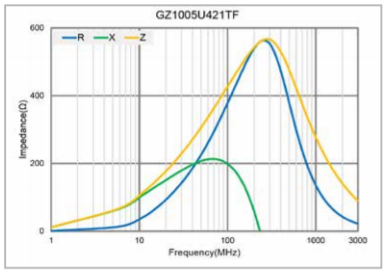


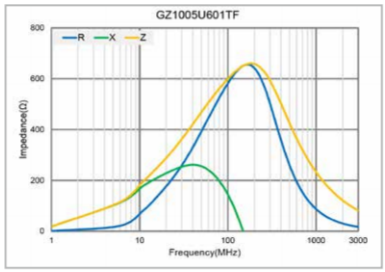


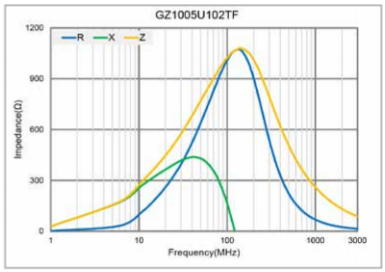








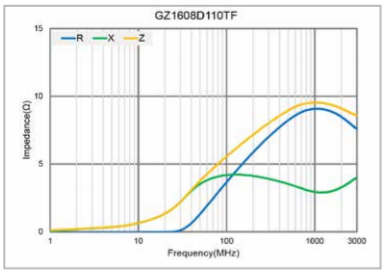


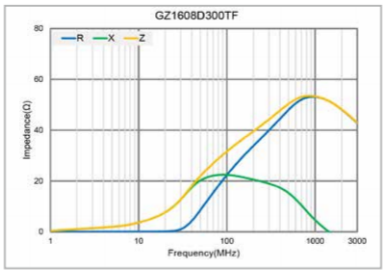


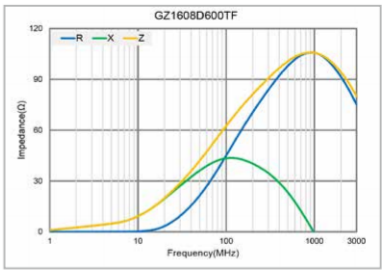
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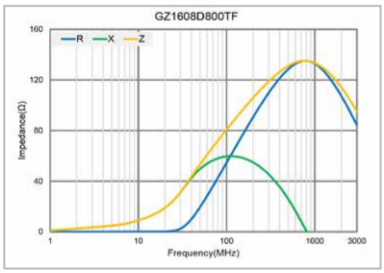
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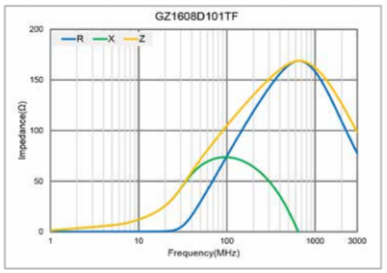
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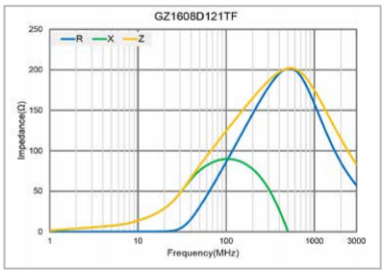


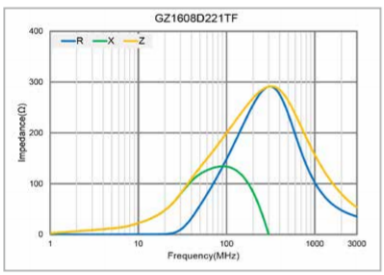


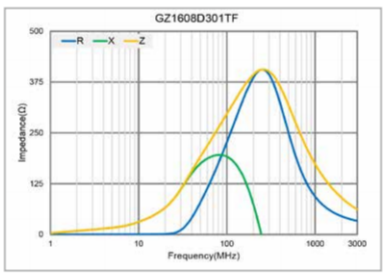


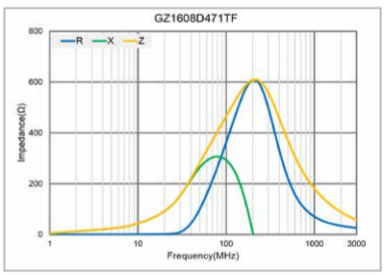


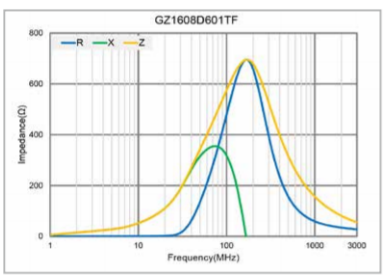


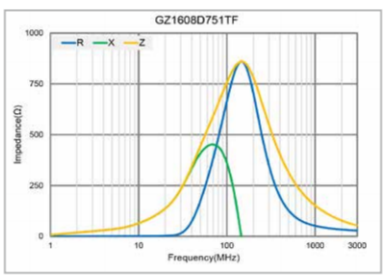


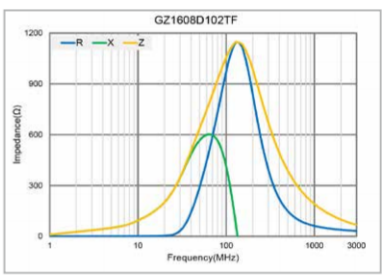


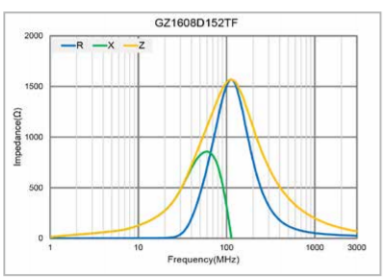


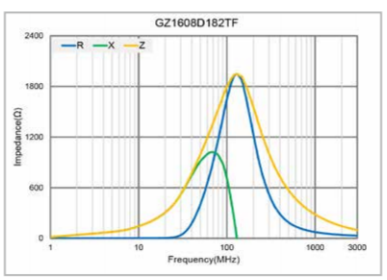


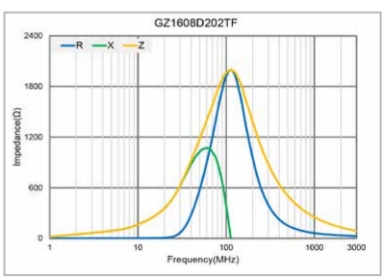


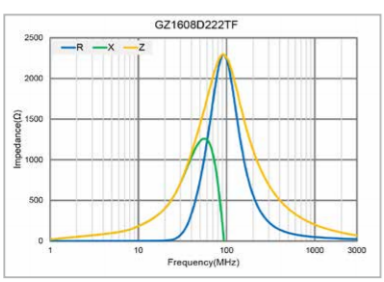


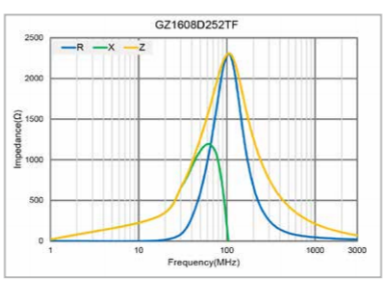


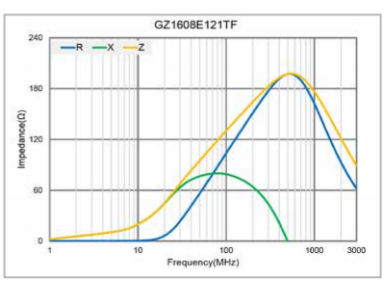








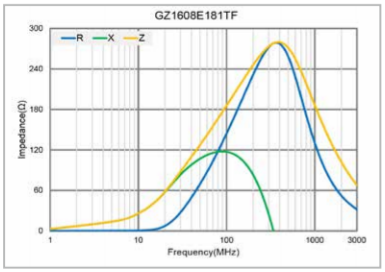


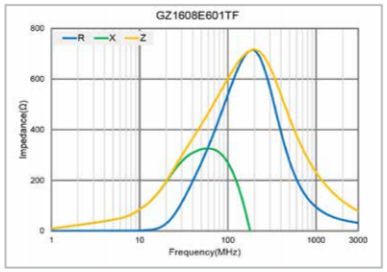


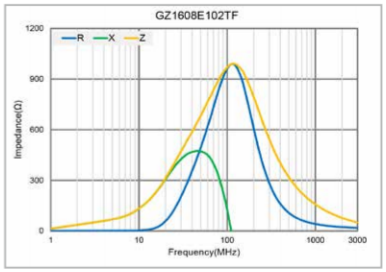
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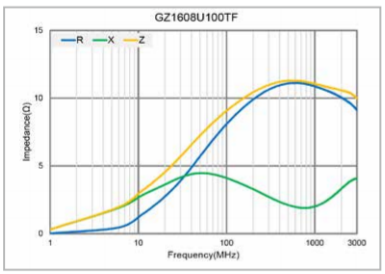
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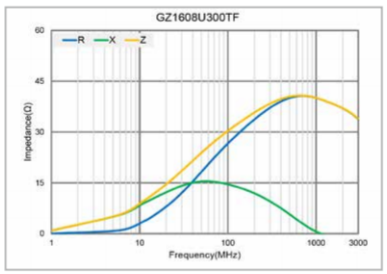
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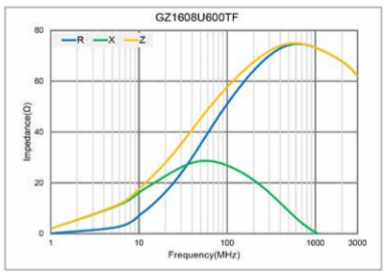


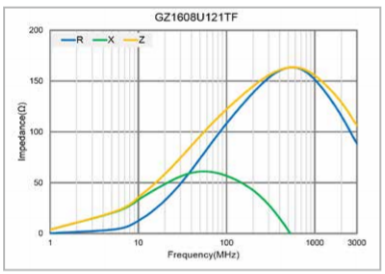


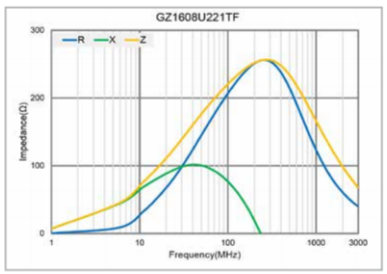


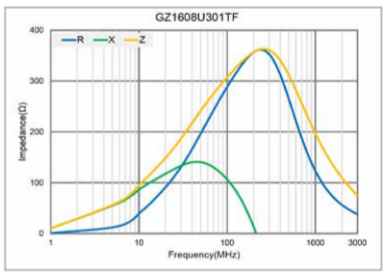


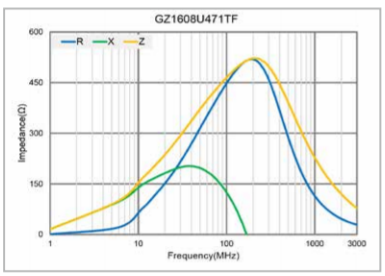


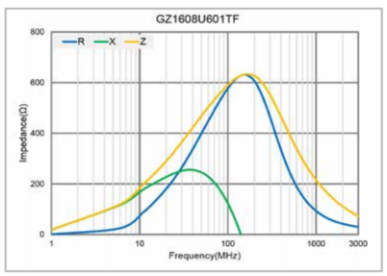


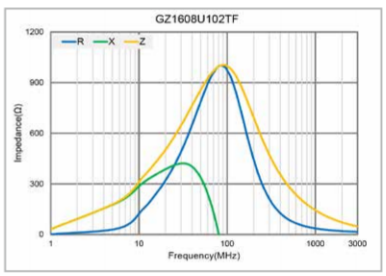




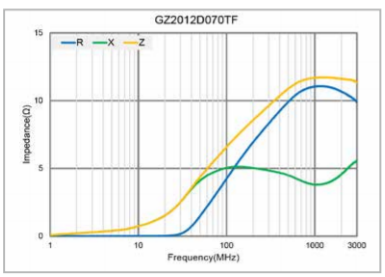


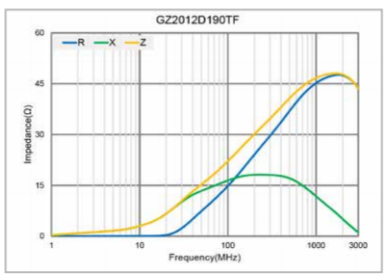


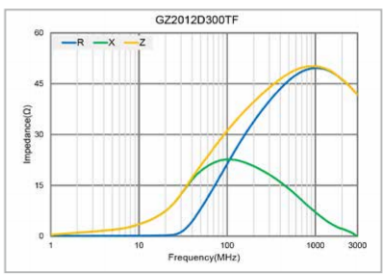




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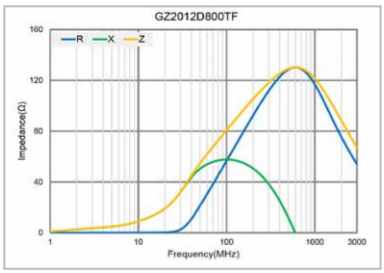


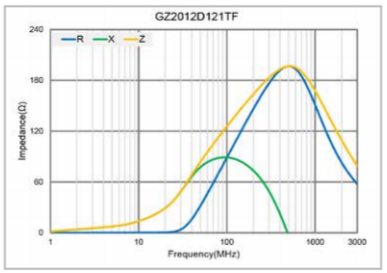


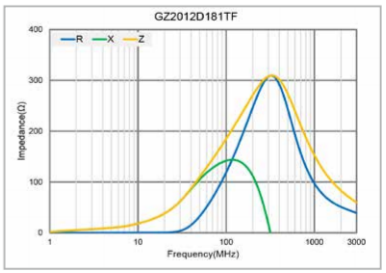
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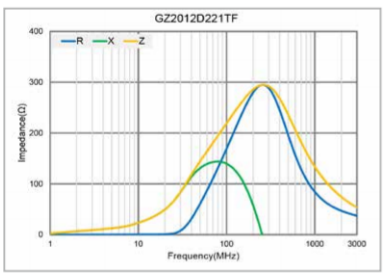
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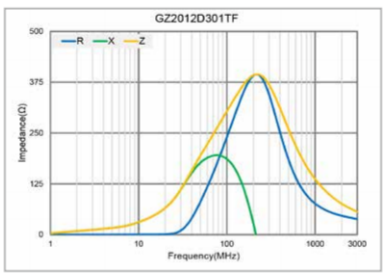
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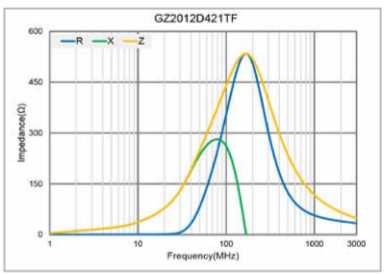


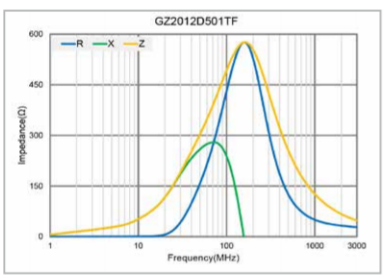


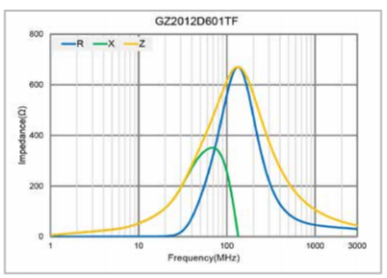


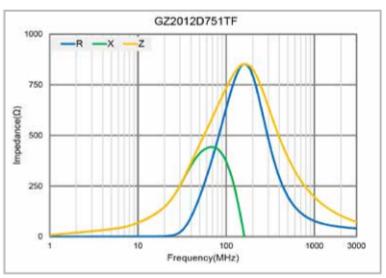


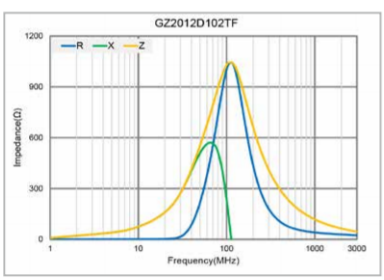


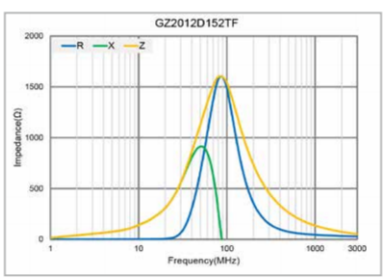


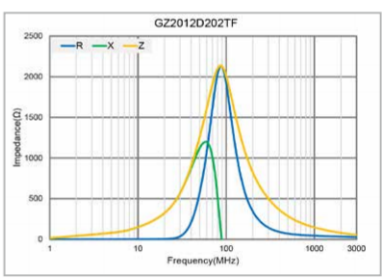


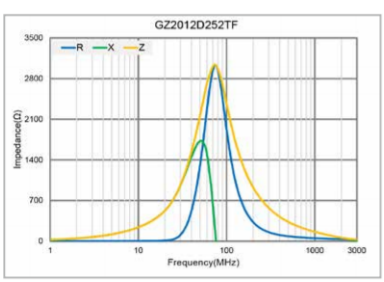


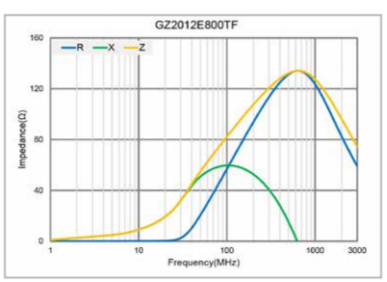


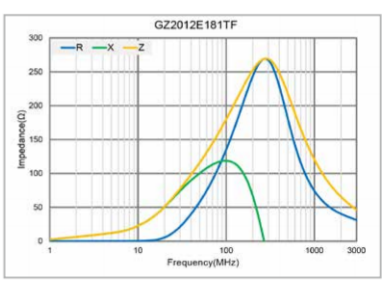


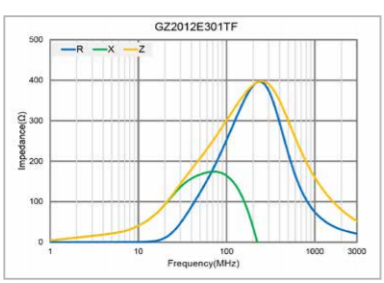


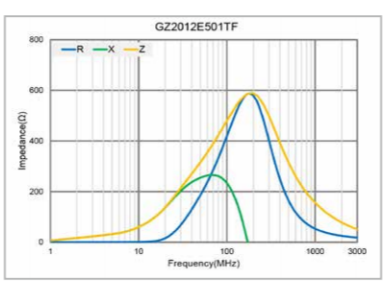


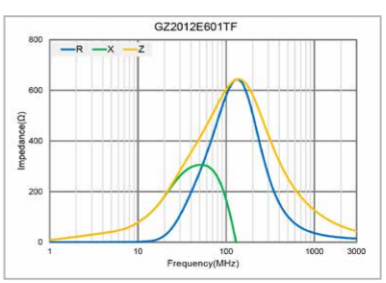










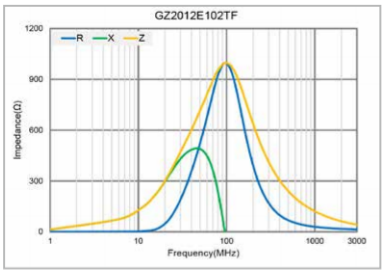


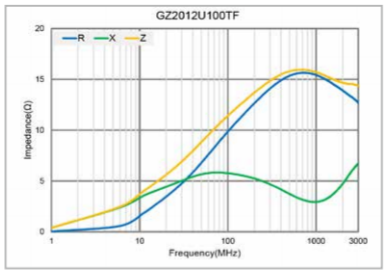
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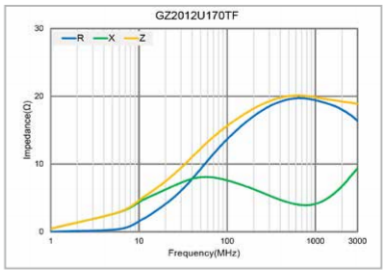
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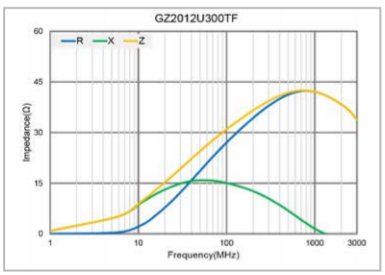
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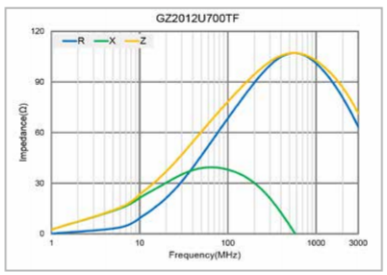
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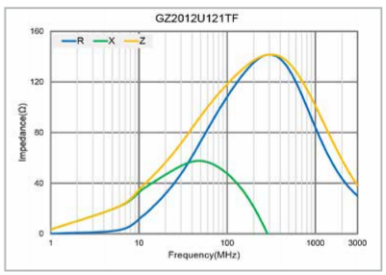


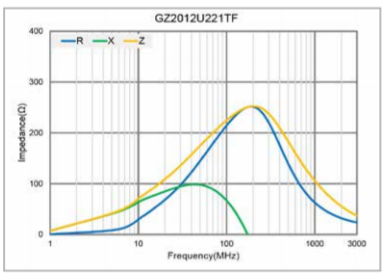


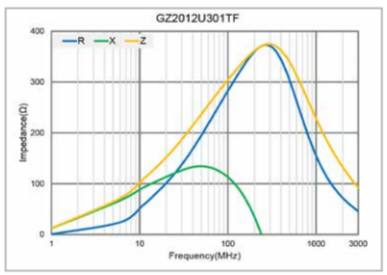


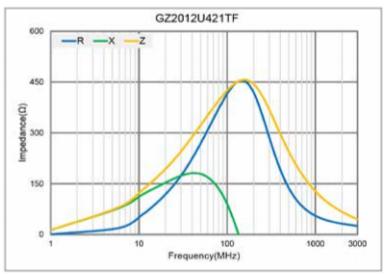


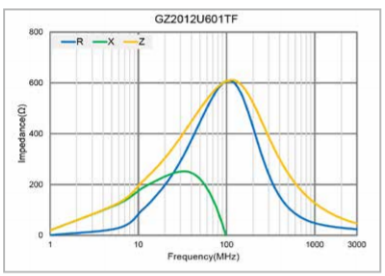


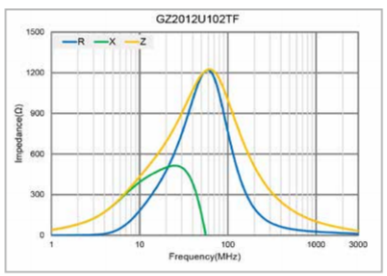




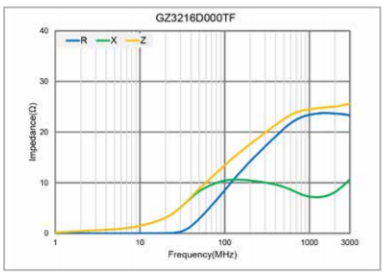


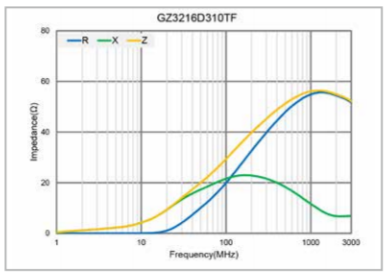


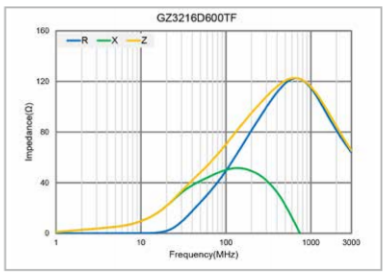




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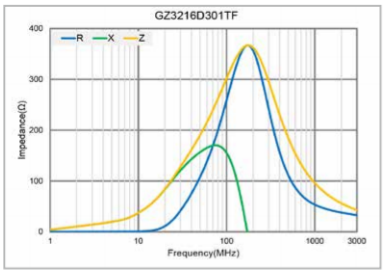




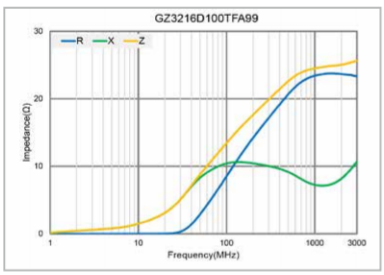
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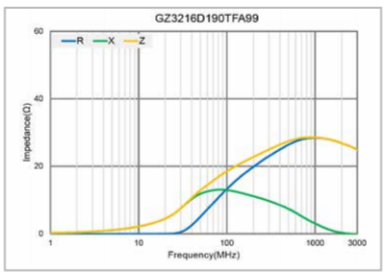
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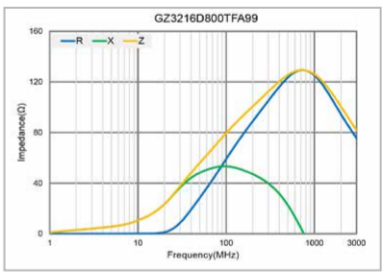
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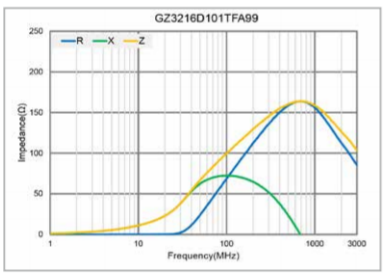


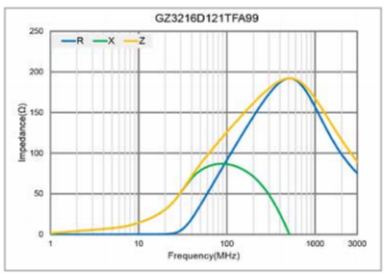
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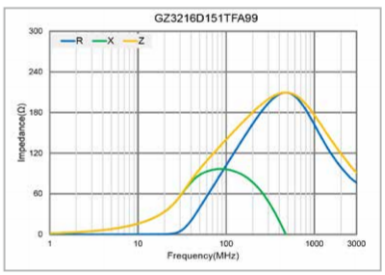


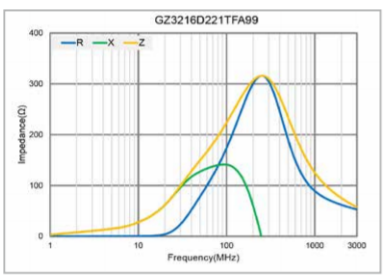


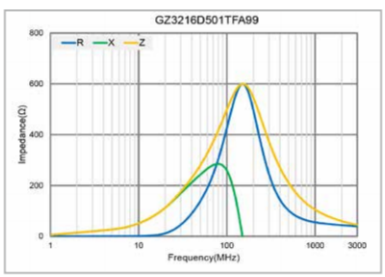


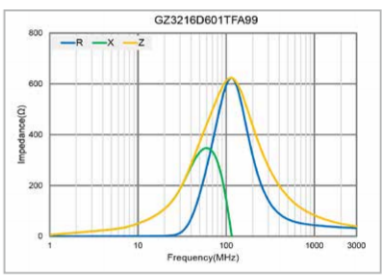


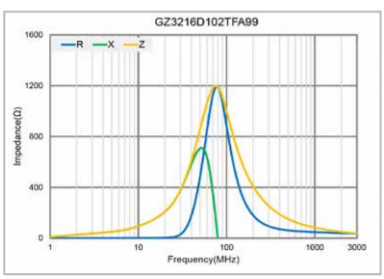


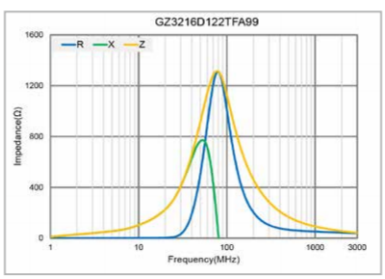


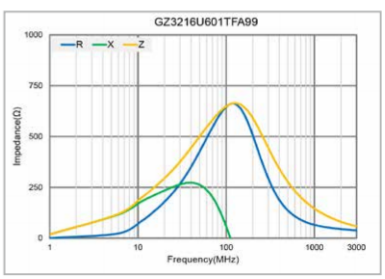












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