

Multilayer Chip Ferrite Beads---FBG Series



Feature

- Wide range of frequency to suppress EMI.
- Wide range of impedance values for various applications.
- Internal silver printed layers and magnetic shielded structure.
- RoHS compliant.
- Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (Including self - temperature rise).

Application

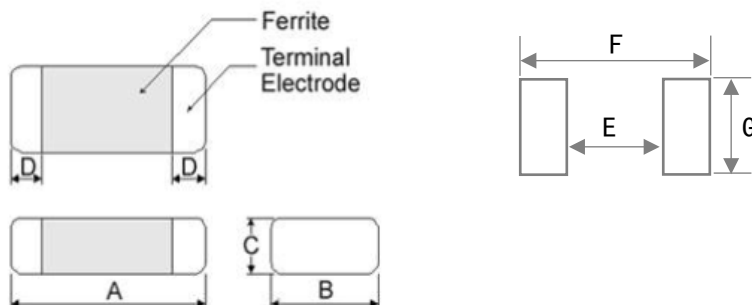
- High frequency EMI prevention of computers, printers, VCRs TVs and portable telephone.

Production identification

FBG 1005 - 121 Y
① ② ③ ④

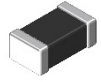
- ① Series name: General Ferrite Bead
- ② Size: $1.0 \times 0.5 \times 0.5\text{mm}$
- ③ Impedance: 120Ω
- ④ Tolerance: $\pm 25\%$

Series Shape and Dimensions (Unit:mm)



Series	A	B	C	D	E _{Typ}	F _{Typ}	G _{Typ}	SPQ
FBG1005	1.0 ± 0.15	0.5 ± 0.15	0.5 ± 0.15	0.25 ± 0.1	0.4	1.3	0.5	10000
FBG1608	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.3 ± 0.2	0.7	1.8	0.8	4000
FBG2012	2.0 ± 0.2	1.25 ± 0.2	0.85 ± 0.2	0.5 ± 0.3	1.0	2.6	1.2	4000
FBG3216	3.2 ± 0.2	1.6 ± 0.2	1.1 ± 0.2	0.5 ± 0.3	2.0	4.2	1.6	3000

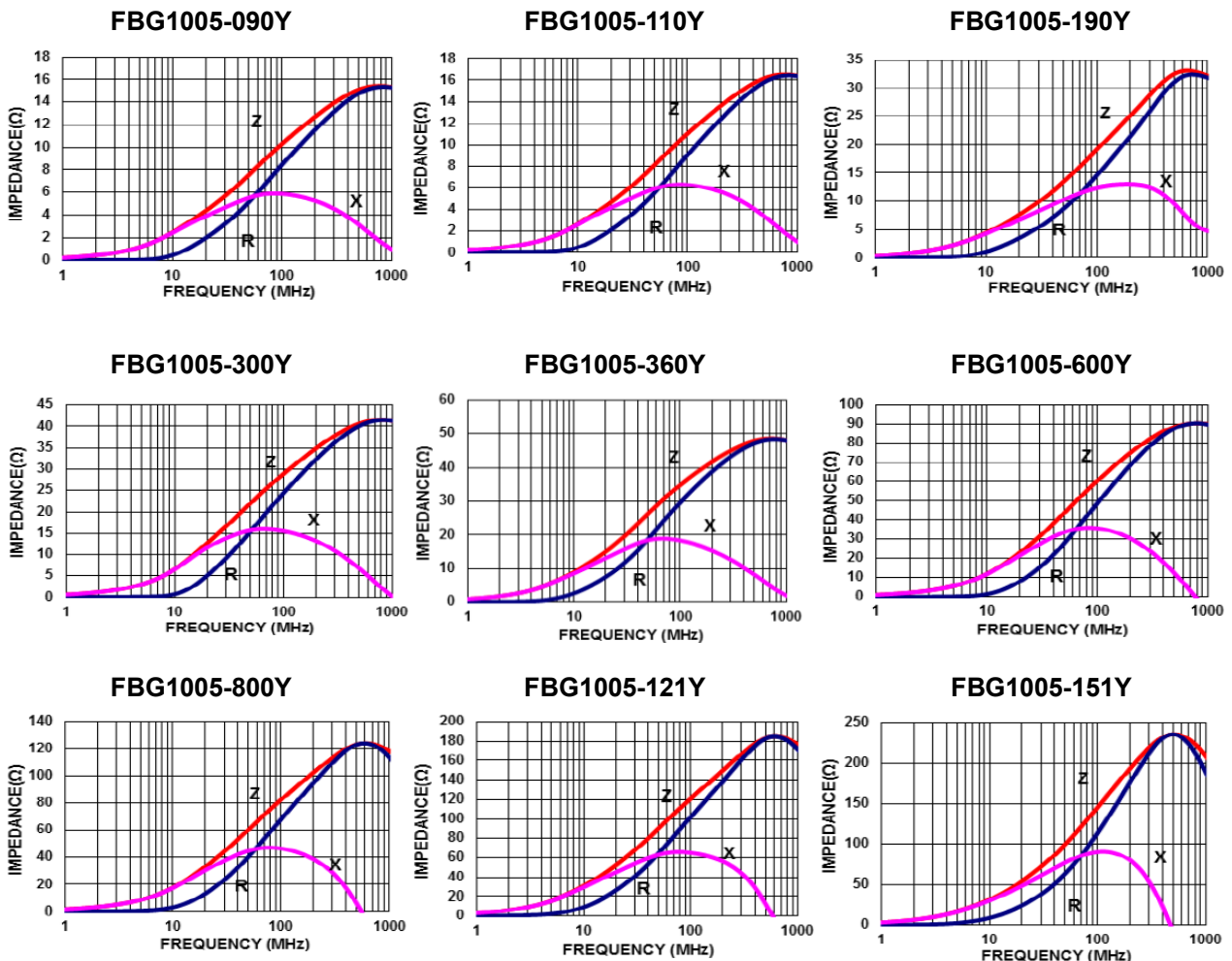
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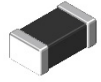
FBG1005 Electrical Characteristics

Part Number	Impedance (Ω)	Tolerance ($\pm\%$)	Test Freq. (MHz)	DCR Max (Ω)	Current Max (A)
FBG1005-090Y	9	25	100	0.10	0.30
FBG1005-110Y	11	25	100	0.10	0.30
FBG1005-190Y	19	25	100	0.10	0.30
FBG1005-300Y	30	25	100	0.20	0.30
FBG1005-360Y	36	25	100	0.20	0.30
FBG1005-600Y	60	25	100	0.35	0.20
FBG1005-800Y	80	25	100	0.40	0.15
FBG1005-121Y	120	25	100	0.50	0.15
FBG1005-151Y	150	25	100	0.55	0.15
FBG1005-181Y	180	25	100	0.60	0.15
FBG1005-221Y	220	25	100	0.70	0.10
FBG1005-301Y	300	25	100	0.80	0.10
FBG1005-501Y	500	25	100	1.10	0.10
FBG1005-601Y	600	25	100	1.30	0.10
FBG1005-102Y	1000	25	100	1.60	0.02

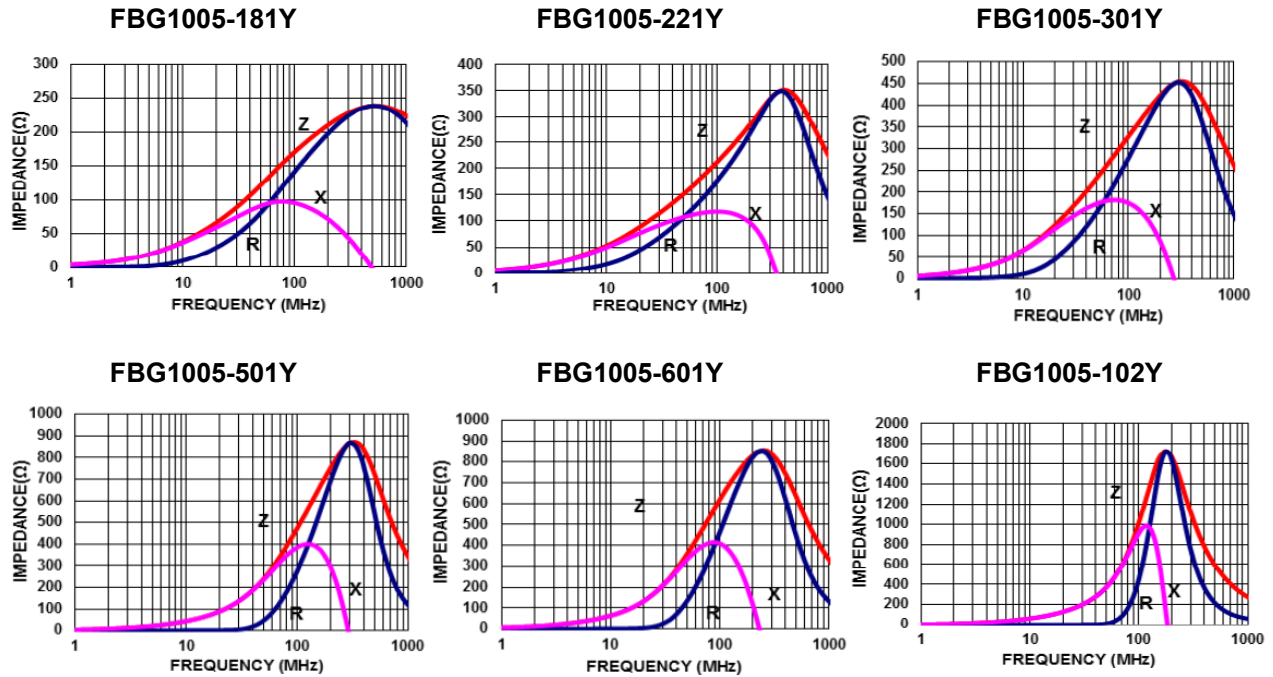
Typical Impedance vs. Frequency Curves



Multilayer Chip Ferrite Beads---FBG Series



Typical Impedance vs. Frequency Curves



Notes:

1. Rate Current: Applied the current to chip bead, the temperature rise shall not be more than 30°C.
2. Measure Equipment:
Z: HP4291A RDC: HP4338B or CHEN HWA 502

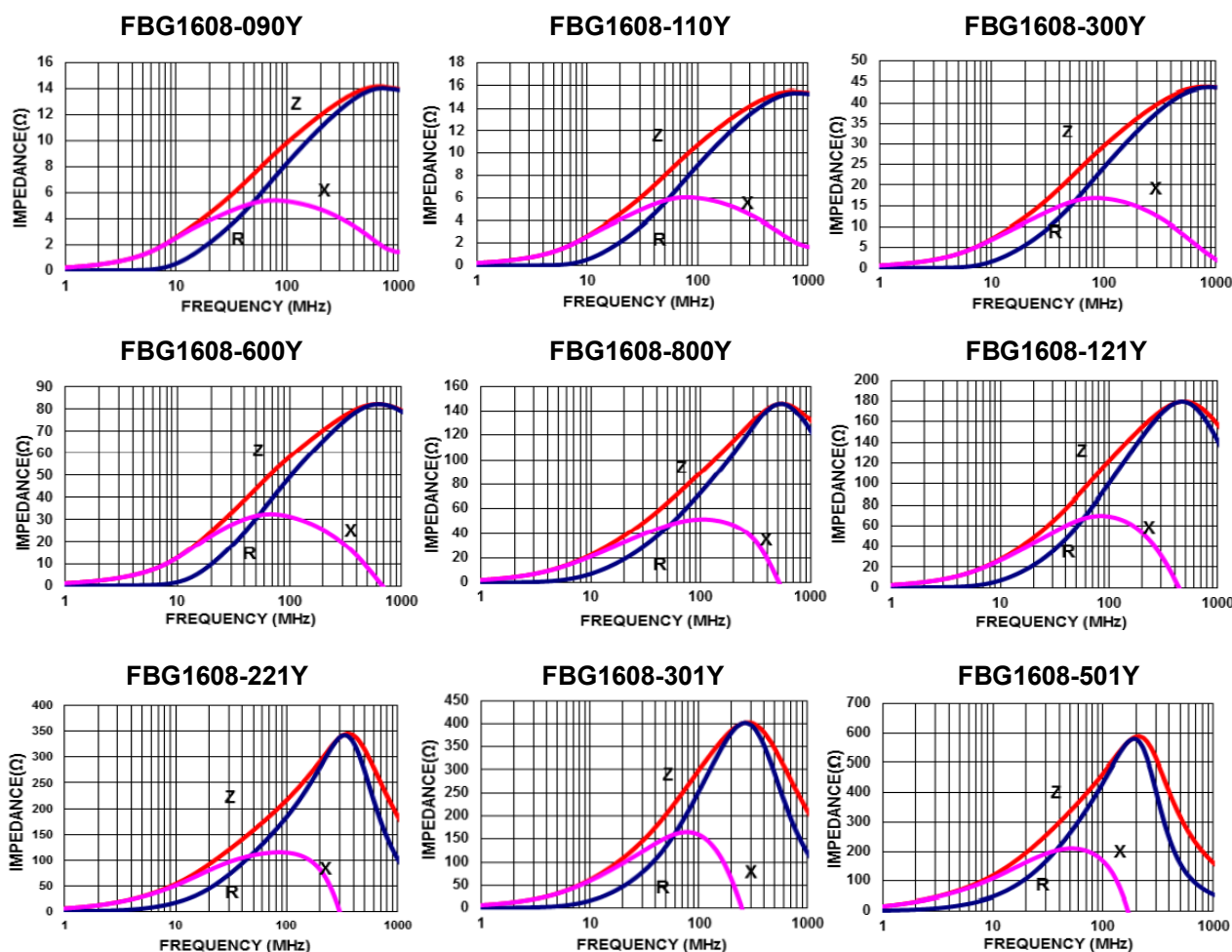
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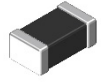
FBG1608 Electrical Characteristics

Part Number	Impedance (Ω)	Tolerance ($\pm\%$)	Test Freq. (MHz)	DCR Max (Ω)	Current Max (A)
FBG1608-090Y	9	25	100	0.10	0.80
FBG1608-110Y	11	25	100	0.10	0.80
FBG1608-300Y	30	25	100	0.10	0.50
FBG1608-600Y	60	25	100	0.20	0.30
FBG1608-800Y	80	25	100	0.20	0.30
FBG1608-121Y	120	25	100	0.30	0.20
FBG1608-221Y	220	25	100	0.45	0.20
FBG1608-301Y	300	25	100	0.50	0.15
FBG1608-501Y	500	25	100	0.60	0.15
FBG1608-601Y	600	25	100	0.60	0.10
FBG1608-102Y	1000	25	100	0.80	0.10
FBG1608-152Y	1500	25	100	0.85	0.05
FBG1608-182Y	1800	25	100	1.10	0.05
FBG1608-202Y	2000	25	100	1.15	0.05
FBG1608-222Y	2200	25	100	1.20	0.05
FBG1608-252Y	2500	25	100	1.30	0.05

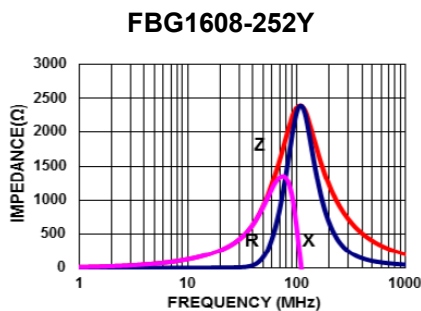
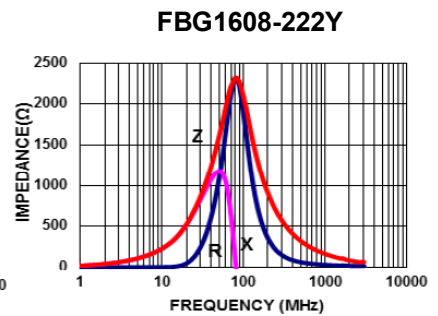
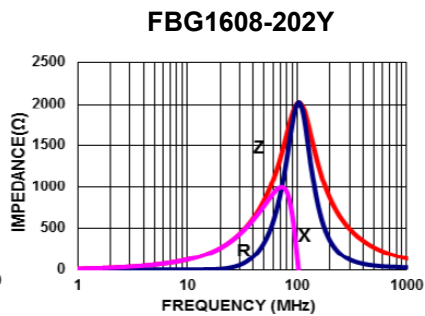
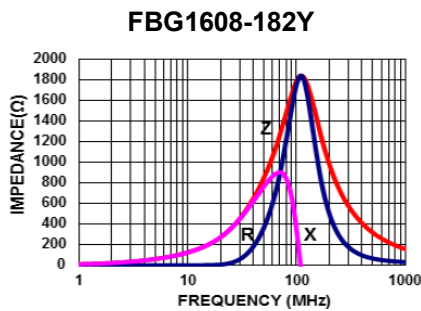
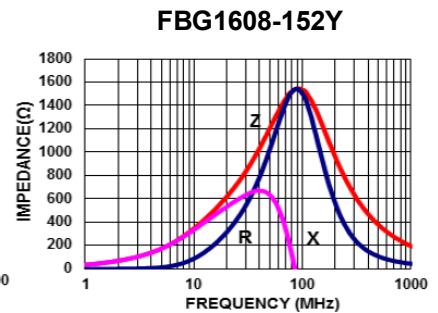
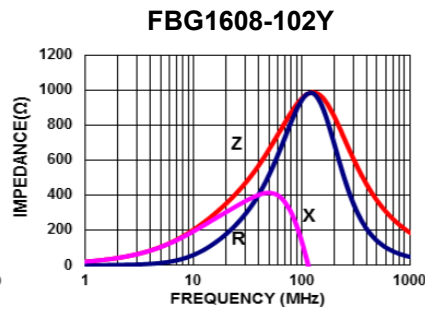
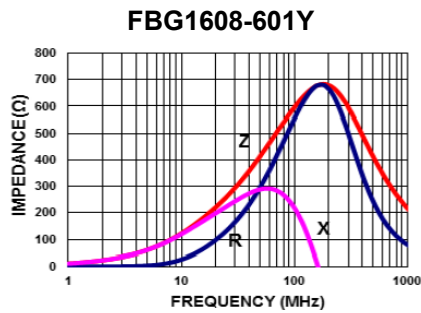
Typical Impedance vs. Frequency Curves



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Typical Impedance vs. Frequency Curves



Notes:

1. Rate Current: Applied the current to chip bead, the temperature rise shall not be more than 30℃.
2. Measure Equipment:
Z: HP4291A RDC: HP4338B or CHEN HWA 502

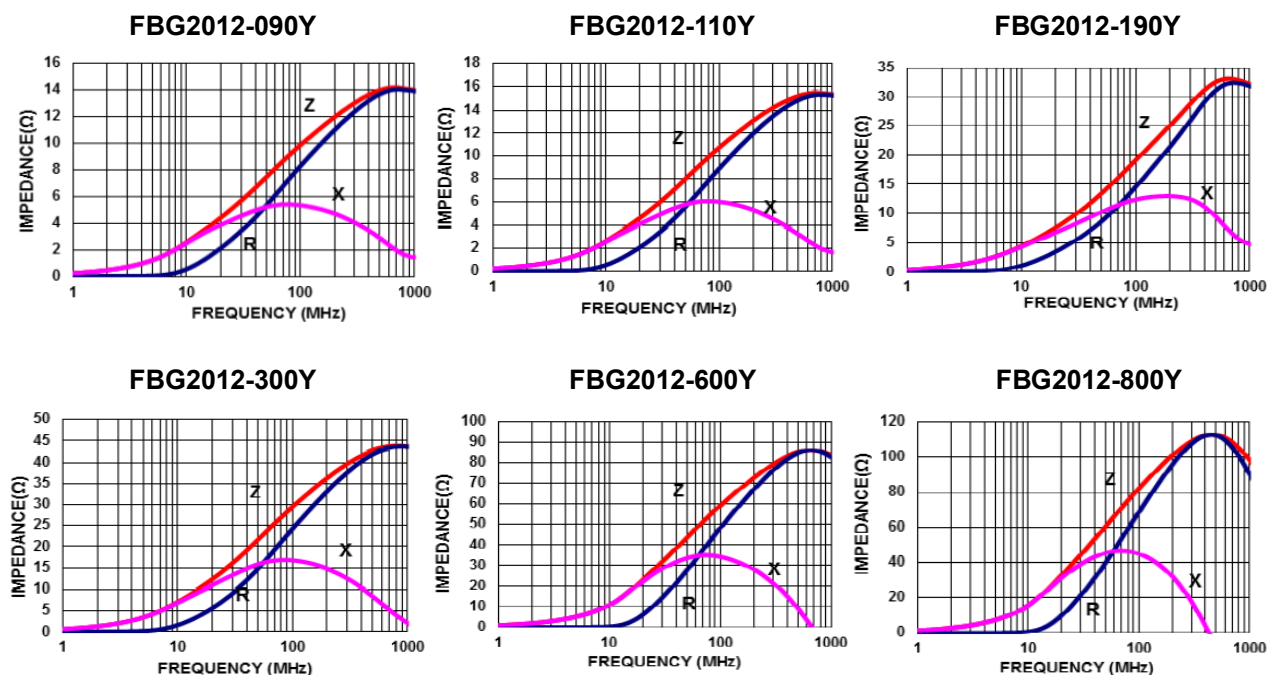
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FBG2012 Electrical Characteristics

Part Number	Impedance (Ω)	Tolerance ($\pm\%$)	Test Freq. (MHz)	DCR Max (Ω)	Current Max (A)
FBG2012-090Y	9	25	100	0.10	0.90
FBG2012-110Y	11	25	100	0.10	0.90
FBG2012-190Y	19	25	100	0.10	0.90
FBG2012-300Y	30	25	100	0.10	0.90
FBG2012-600Y	60	25	100	0.15	0.90
FBG2012-800Y	80	25	100	0.18	0.50
FBG2012-121Y	120	25	100	0.20	0.40
FBG2012-221Y	220	25	100	0.20	0.30
FBG2012-301Y	300	25	100	0.35	0.30
FBG2012-501Y	500	25	100	0.40	0.30
FBG2012-601Y	600	25	100	0.40	0.30
FBG2012-102Y	1000	25	100	0.45	0.20
FBG2012-122Y	1200	25	100	0.60	0.10
FBG2012-152Y	1500	25	100	0.70	0.10
FBG2012-202Y	2000	25	100	0.90	0.05
FBG2012-222Y	2200	25	100	1.00	0.05
FBG2012-252Y	2500	25	100	1.20	0.05
FBG2012-272Y	2700	25	100	1.40	0.03

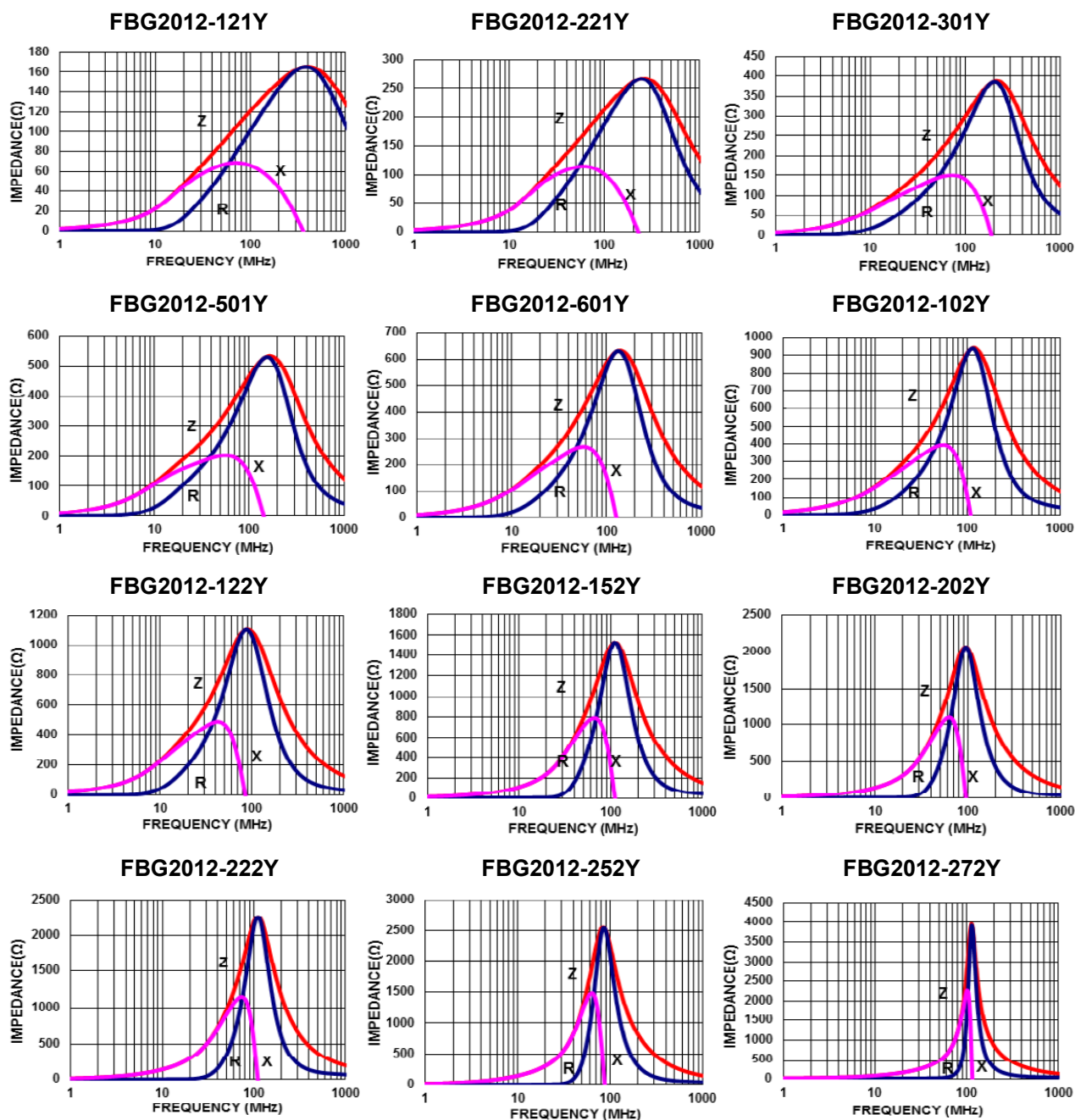
Typical Impedance vs. Frequency Curves



Multilayer Chip Ferrite Beads---FBG Series



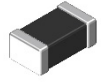
Typical Impedance vs. Frequency Curves



Notes:

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2. Measure Equipment:
Z: HP4291A RDC: HP4338B or CHEN HWA 502

Multilayer Chip Ferrite Beads---FBG Series

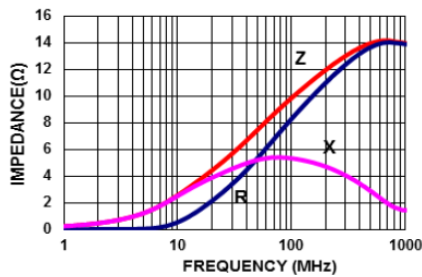


FBG3216 Electrical Characteristics

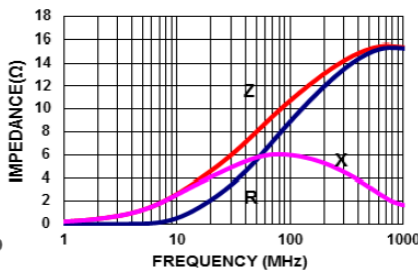
Part Number	Impedance (Ω)	Tolerance ($\pm\%$)	Test Freq. (MHz)	DCR Max (Ω)	Current Max (A)
FBG3216-090Y	9	25	100	0.10	1.00
FBG3216-110Y	11	25	100	0.10	1.00
FBG3216-190Y	19	25	100	0.10	1.00
FBG3216-300Y	30	25	100	0.10	1.00
FBG3216-600Y	60	25	100	0.15	1.00
FBG3216-800Y	80	25	100	0.15	1.00
FBG3216-121Y	120	25	100	0.25	1.00
FBG3216-221Y	220	25	100	0.35	0.40
FBG3216-301Y	300	25	100	0.40	0.40
FBG3216-501Y	500	25	100	0.45	0.30
FBG3216-601Y	600	25	100	0.45	0.30
FBG3216-102Y	1000	25	100	0.55	0.30
FBG3216-122Y	1200	25	100	0.60	0.10
FBG3216-202Y	2000	25	100	1.00	0.05

Typical Impedance vs. Frequency Curves

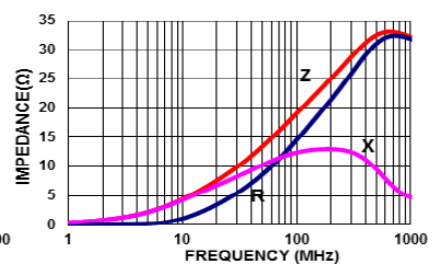
FBG3216-090Y



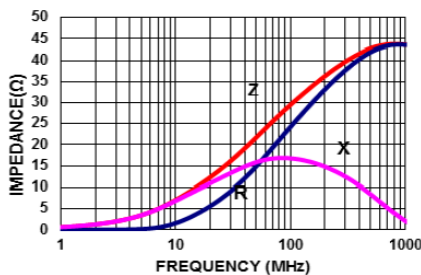
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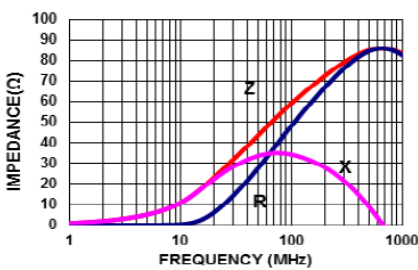
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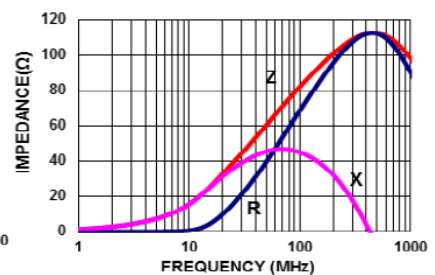
FBG3216-300Y



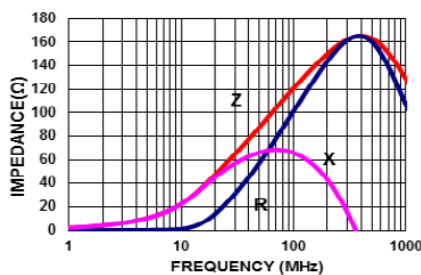
FBG3216-600Y



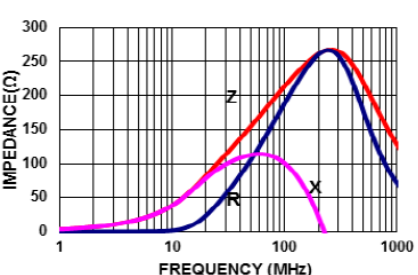
FBG3216-800Y



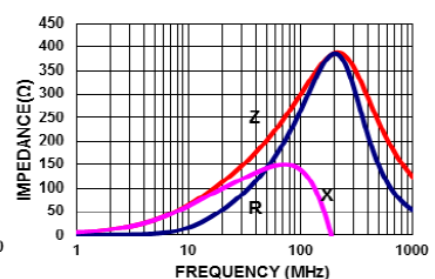
FBG3216-121Y



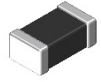
FBG3216-221Y



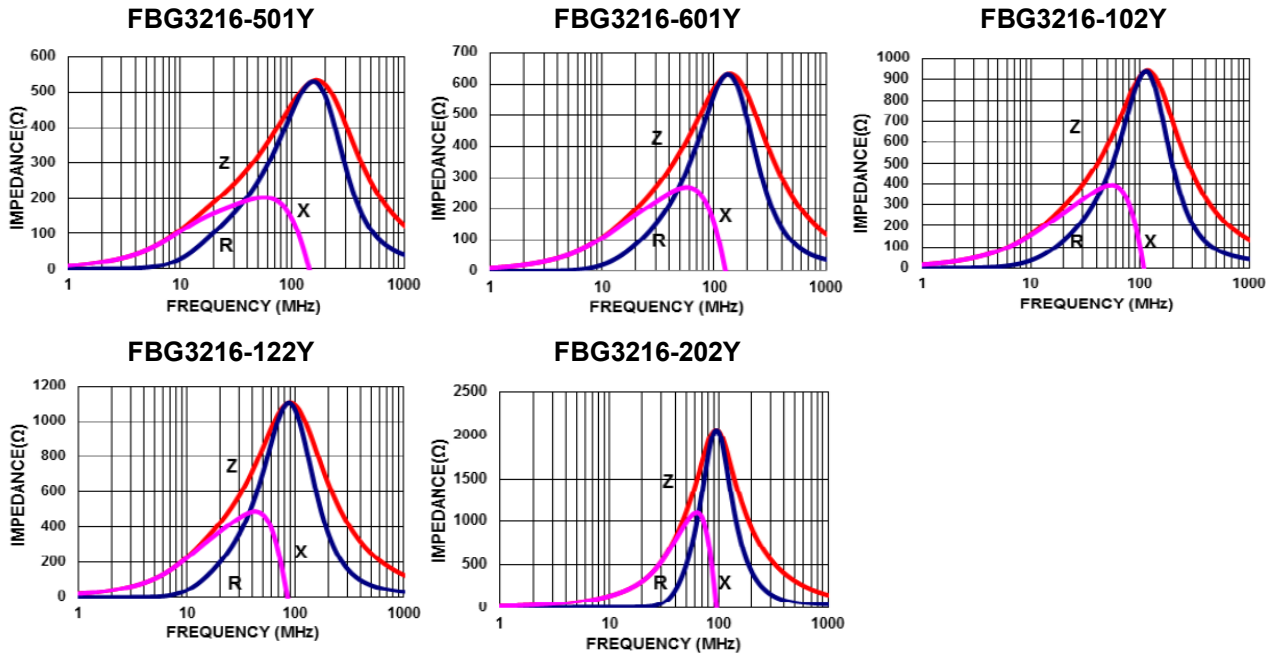
FBG3216-301Y



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 Z: HP4291A RDC: HP4338B or CHEN HWA 502