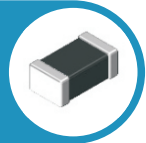




## Multilayer Chip Ferrite Beads - FBG Series



### 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°C~125°C(Including self - temperature rise).

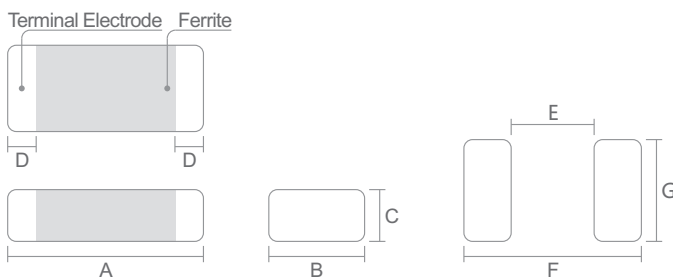
### Application

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

### Production Identification

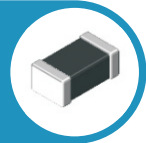
<b>FBG</b> Series name: General Ferrite Bead	<b>1005</b> Size: 1.0×0.5×0.5mm	—	<b>121</b> Impedance: 120Ω	<b>Y</b> Tolerance: ±25%
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### Series Shape and Dimensions (Unit:mm)



Series	A	B	C	D	E <sub>Typ</sub>	F <sub>Typ</sub>	G <sub>Typ</sub>
FBG1005	1.0±0.15	0.5±0.15	0.5±0.15	0.25±0.1	0.4	1.3	0.5
FBG1608	1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2	0.7	1.8	0.8
FBG2012	2.0±0.2	1.25±0.2	0.85±0.2	0.5±0.3	1.0	2.6	1.2
FBG3216	3.2±0.2	1.6±0.2	1.1±0.2	0.5±0.3	2.0	4.2	1.6

## Multilayer Chip Ferrite Beads - FBG Series



### FBG1005 Electrical Characteristics

Part Number	Impedance ( $\Omega$ )	Tolerance	Test Freq. (MHz)	DCR Max ( $\Omega$ )	Current Max (A)
FBG1005-090Y	9	0-15 $\Omega$	100	0.10	0.30
FBG1005-110Y	11	0-15 $\Omega$	100	0.10	0.30
FBG1005-190Y	19	12-25 $\Omega$	100	0.10	0.30
FBG1005-300Y	30	$\pm 25\%$	100	0.20	0.30
FBG1005-360Y	36	$\pm 25\%$	100	0.20	0.30
FBG1005-600Y	60	$\pm 25\%$	100	0.35	0.20
FBG1005-800Y	80	$\pm 25\%$	100	0.40	0.15
FBG1005-121Y	120	$\pm 25\%$	100	0.50	0.15
FBG1005-151Y	150	$\pm 25\%$	100	0.55	0.15
FBG1005-181Y	180	$\pm 25\%$	100	0.60	0.15
FBG1005-221Y	220	$\pm 25\%$	100	0.70	0.10
FBG1005-301Y	300	$\pm 25\%$	100	0.80	0.10
FBG1005-501Y	500	$\pm 25\%$	100	1.10	0.10
FBG1005-601Y	600	$\pm 25\%$	100	1.30	0.10
FBG1005-102Y	1000	$\pm 25\%$	100	1.60	0.02

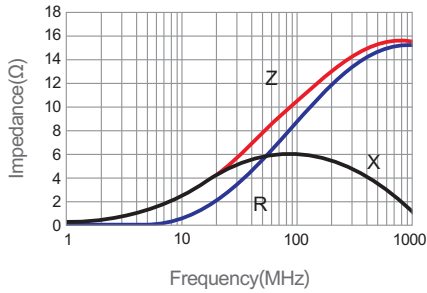
### Notes

- Rated Current: Applied the current to chip bead, the temperature rise shall not be more than 30°C.
- Measuring Equipment: **Z**: HP4291A **RDC**: HP4338B or CHEN HWA 502

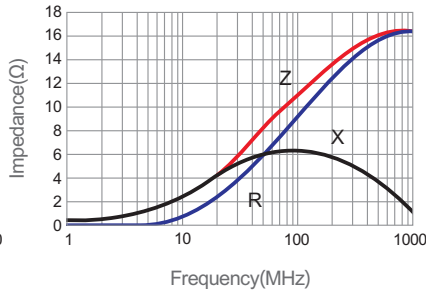


## Typical Impedance vs. Frequency Curves

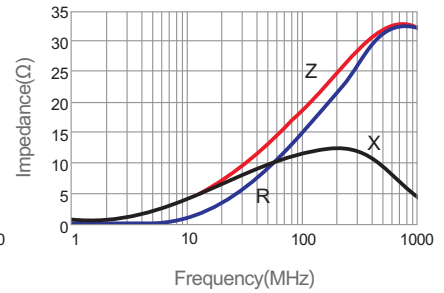
**FBG1005-090Y**



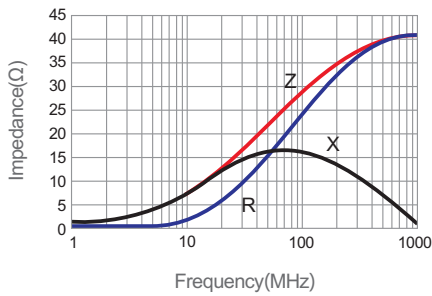
**FBG1005-110Y**



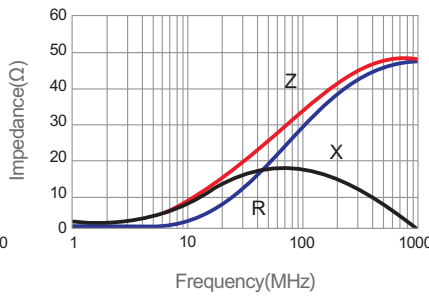
**FBG1005-190Y**



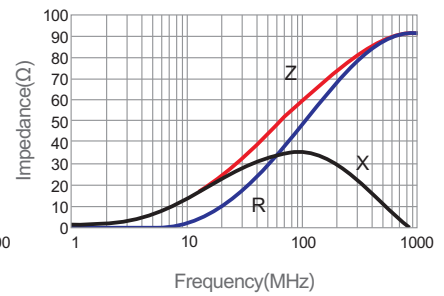
**FBG1005-300Y**



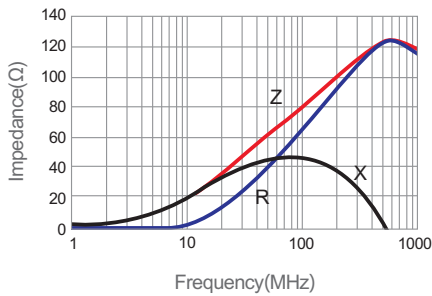
**FBG1005-360Y**



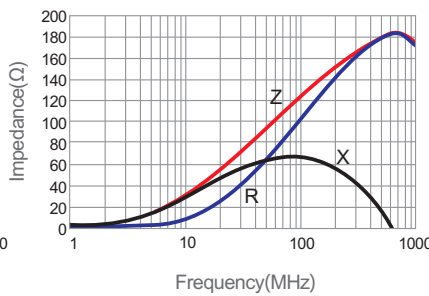
**FBG1005-600Y**



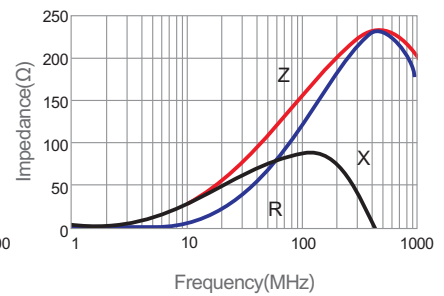
**FBG1005-800Y**



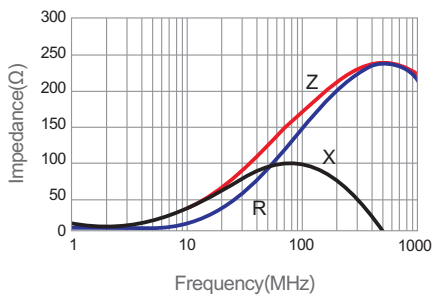
**FBG1005-121Y**



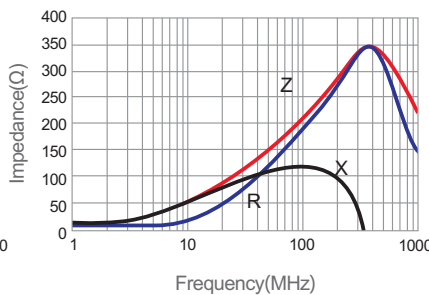
**FBG1005-151Y**



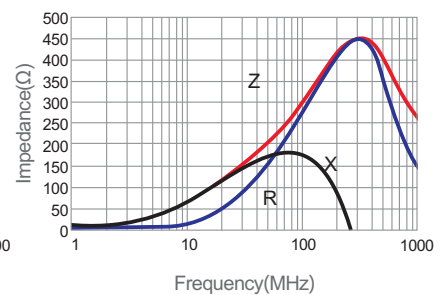
**FBG1005-181Y**



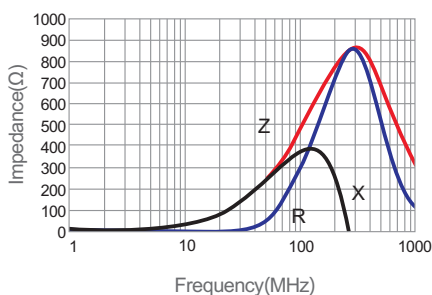
**FBG1005-221Y**



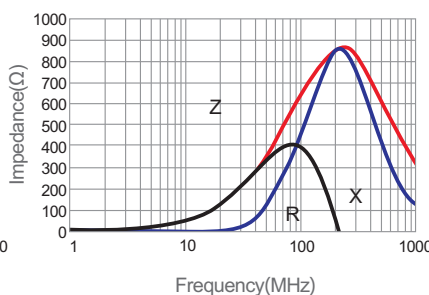
**FBG1005-301Y**



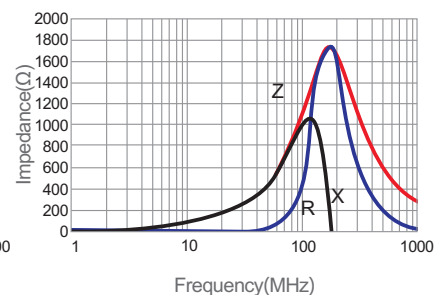
**FBG1005-501Y**



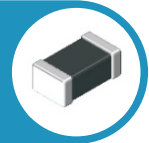
**FBG1005-601Y**



**FBG1005-102Y**



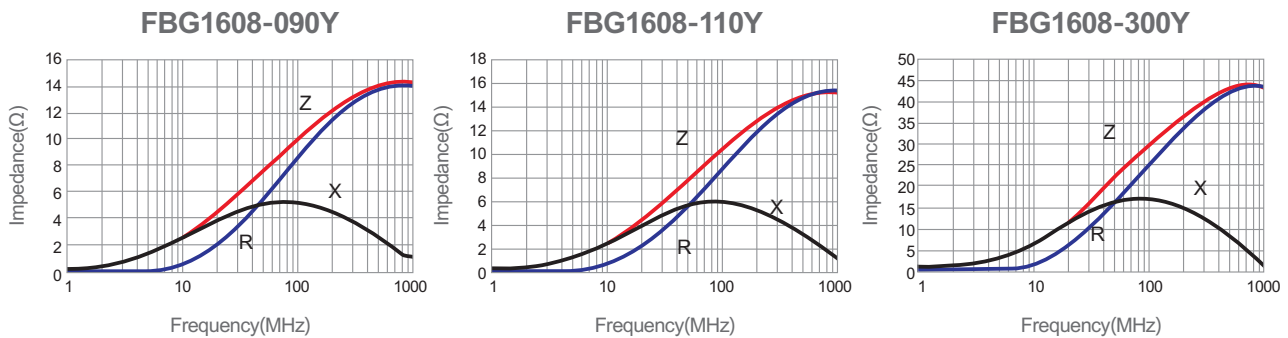
# Multilayer Chip Ferrite Beads - FBG Series



## FBG1608 Electrical Characteristics

Part Number	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR Max (Ω)	Current Max (A)
FBG1608-090Y	9	0-15Ω	100	0.10	0.80
FBG1608-110Y	11	0-15Ω	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

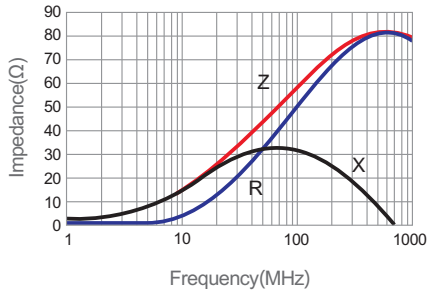
## Typical Impedance vs. Frequency Curves



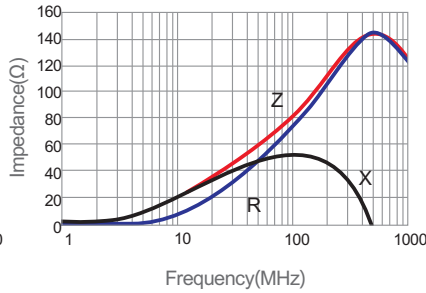


## Typical Impedance vs. Frequency Curves

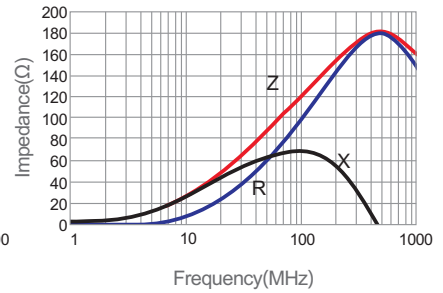
### FBG1608-600Y



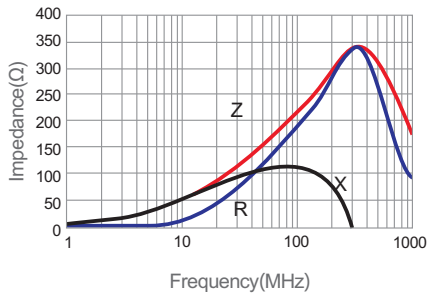
### FBG1608-800Y



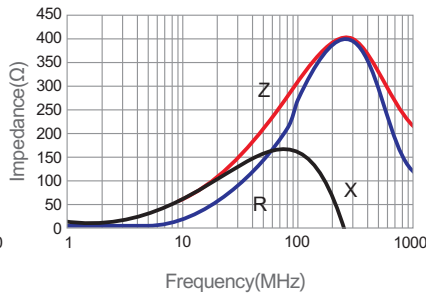
### FBG1608-121Y



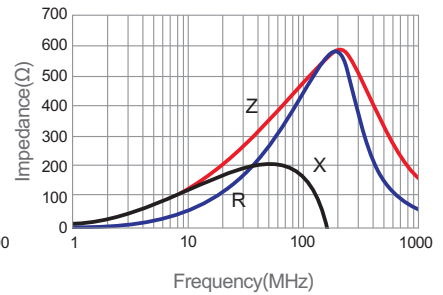
### FBG1608-221Y



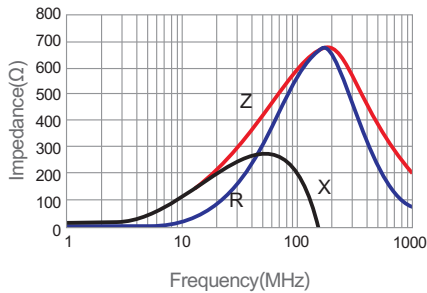
### FBG1608-301Y



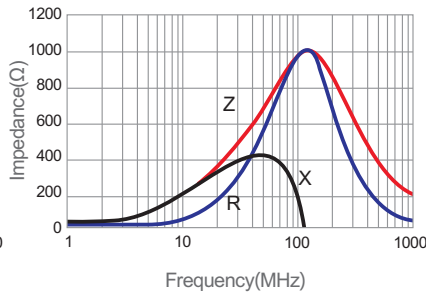
### FBG1608-501Y



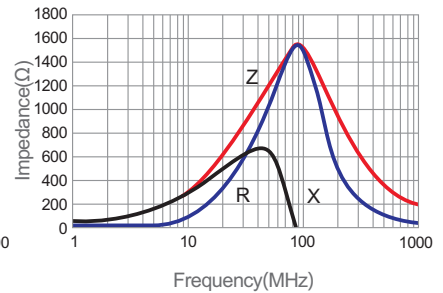
### FBG1608-601Y



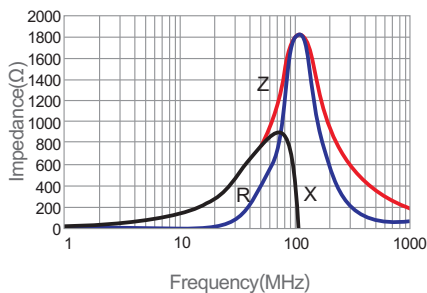
### FBG1608-102Y



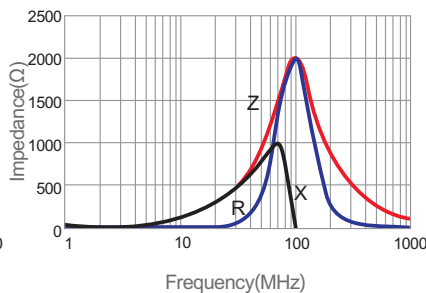
### FBG1608-152Y



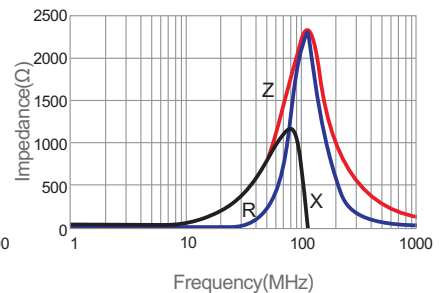
### FBG1608-182Y



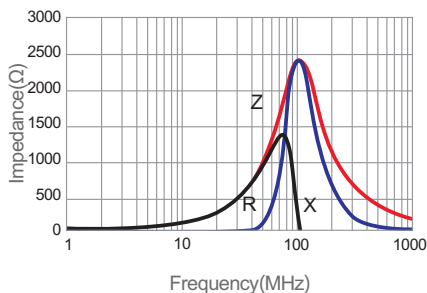
### FBG1608-202Y



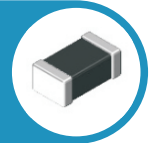
### FBG1608-222Y



### FBG1608-252Y



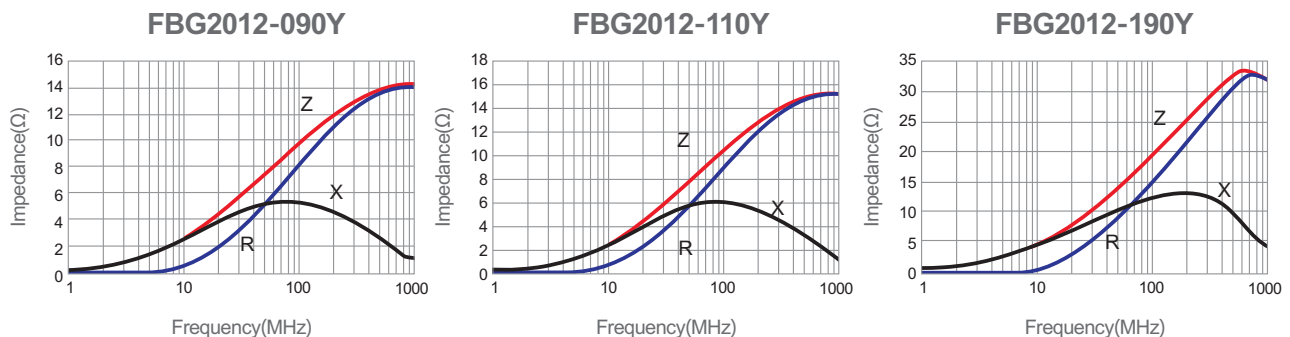
# Multilayer Chip Ferrite Beads - FBG Series



## FBG2012 Electrical Characteristics

Part Number	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR Max (Ω)	Current Max (A)
FBG2012-090Y	9	0-15Ω	100	0.10	0.90
FBG2012-110Y	11	0-15Ω	100	0.10	0.90
FBG2012-190Y	19	12-25Ω	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

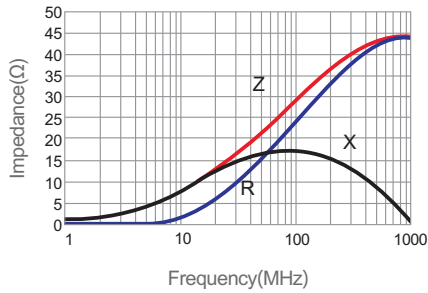
## Typical Impedance vs. Frequency Curves



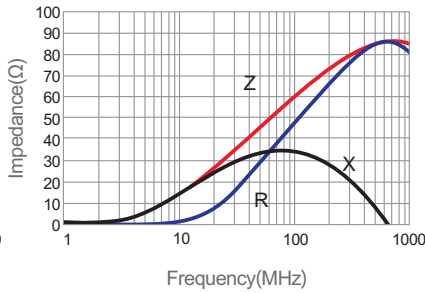


## Typical Impedance vs. Frequency Curves

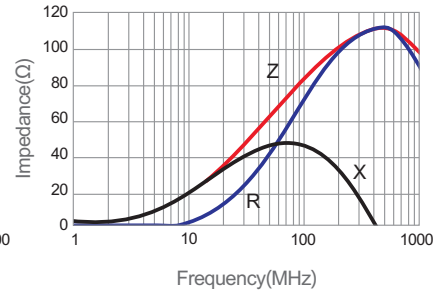
**FBG2012-300Y**



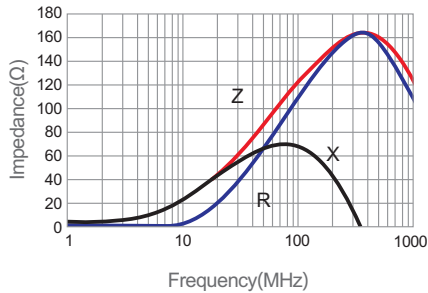
**FBG2012-600Y**



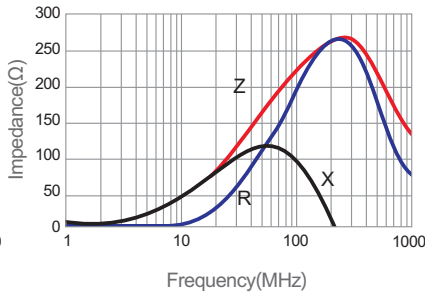
**FBG2012-800Y**



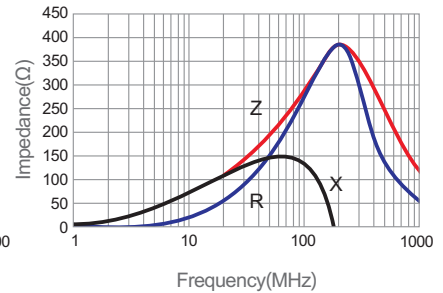
**FBG2012-121Y**



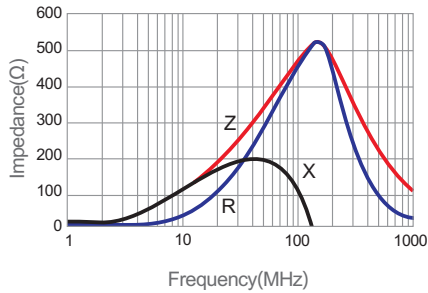
**FBG2012-221Y**



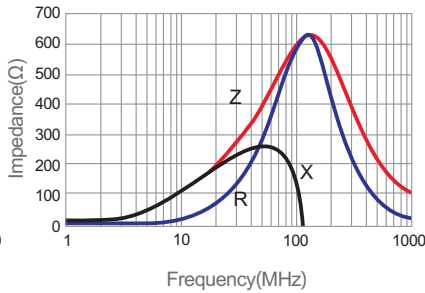
**FBG2012-301Y**



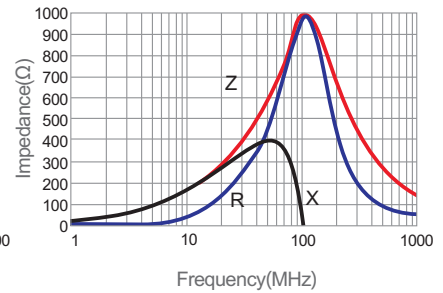
**FBG2012-501Y**



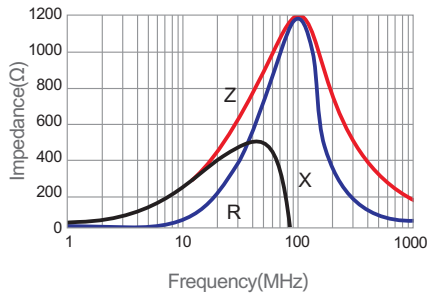
**FBG2012-601Y**



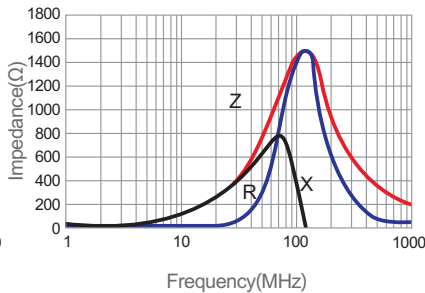
**FBG2012-102Y**



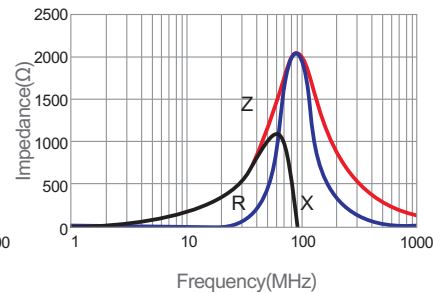
**FBG2012-122Y**



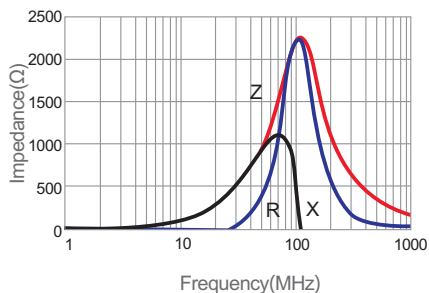
**FBG2012-152Y**



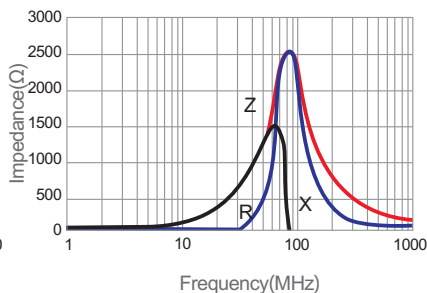
**FBG2012-202Y**



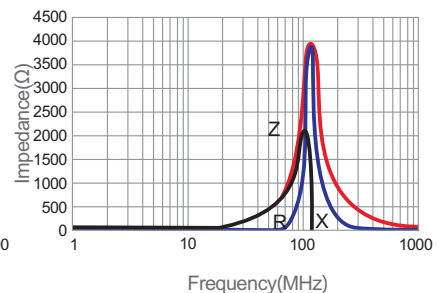
**FBG2012-222Y**



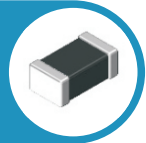
**FBG2012-252Y**



**FBG2012-272Y**



## Multilayer Chip Ferrite Beads - FBG Series



### FBG3216 Electrical Characteristics

Part Number	Impedance ( $\Omega$ )	Tolerance	Test Freq. (MHz)	DCR Max ( $\Omega$ )	Current Max (A)
FBG3216-090Y	9	0-15 $\Omega$	100	0.10	1.00
FBG3216-110Y	11	0-15 $\Omega$	100	0.10	1.00
FBG3216-190Y	19	12-25 $\Omega$	100	0.10	1.00
FBG3216-300Y	30	$\pm 25\%$	100	0.10	1.00
FBG3216-600Y	60	$\pm 25\%$	100	0.15	1.00
FBG3216-800Y	80	$\pm 25\%$	100	0.15	1.00
FBG3216-121Y	120	$\pm 25\%$	100	0.25	1.00
FBG3216-221Y	220	$\pm 25\%$	100	0.35	0.40
FBG3216-301Y	300	$\pm 25\%$	100	0.40	0.40
FBG3216-501Y	500	$\pm 25\%$	100	0.45	0.30
FBG3216-601Y	600	$\pm 25\%$	100	0.45	0.30
FBG3216-102Y	1000	$\pm 25\%$	100	0.55	0.30
FBG3216-122Y	1200	$\pm 25\%$	100	0.60	0.10
FBG3216-202Y	2000	$\pm 25\%$	100	1.00	0.05

### Notes

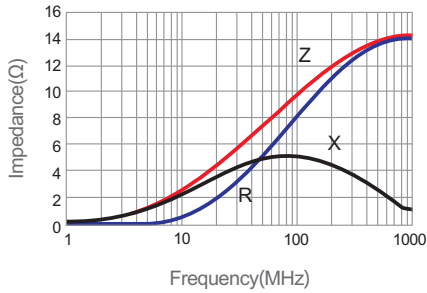
- Rated Current: Applied the current to chip bead, the temperature rise shall not be more than 30°C.
- Measuring Equipment: **Z**: HP4291A **RDC**: HP4338B or CHEN HWA 502



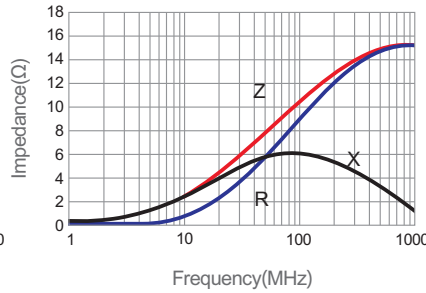


## Typical Impedance vs. Frequency Curves

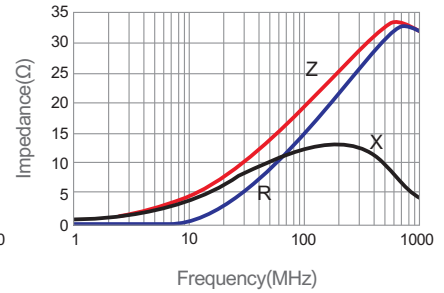
**FBG3216-090Y**



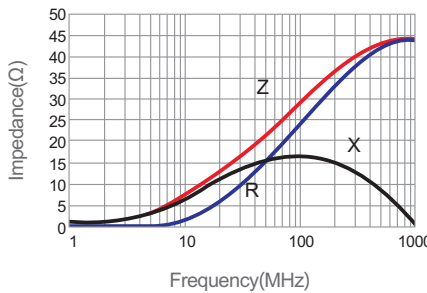
**FBG3216-110Y**



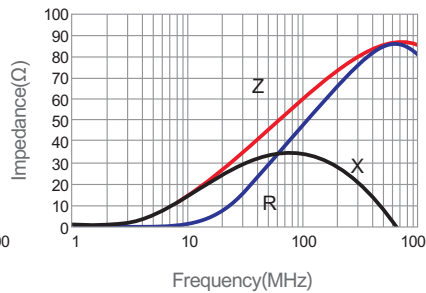
**FBG3216-190Y**



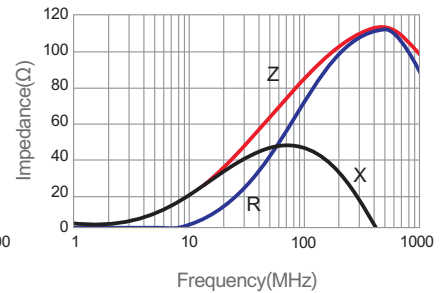
**FBG3216-300Y**



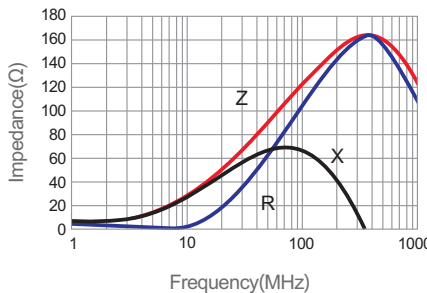
**FBG3216-600Y**



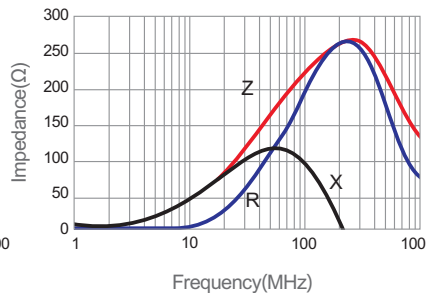
**FBG3216-800Y**



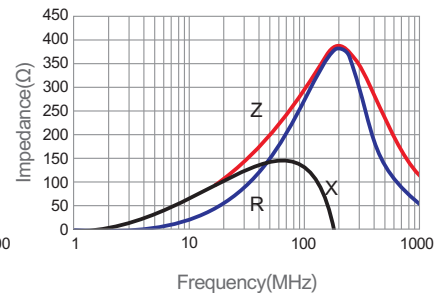
**FBG3216-121Y**



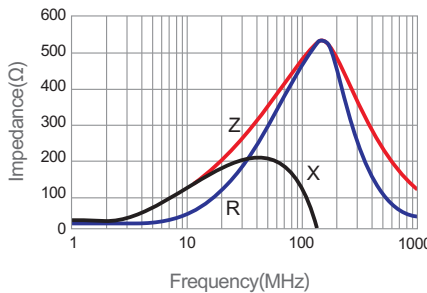
**FBG3216-221Y**



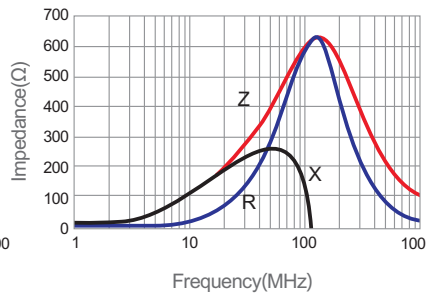
**FBG3216-301Y**



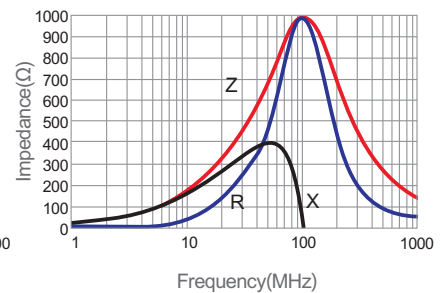
**FBG3216-501Y**



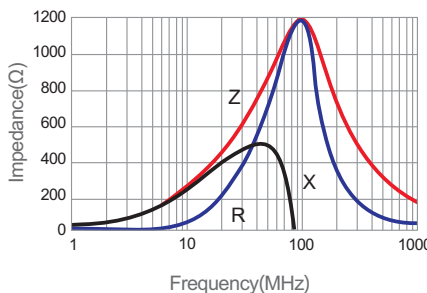
**FBG3216-601Y**



**FBG3216-102Y**



**FBG3216-122Y**



**FBG3216-202Y**

