TDK

March 2014

Ni-Zn

Ferrites for EMI Suppression

BB series(1 Hole)

⚠ REMINDERS FOR USING THESE PRODUCTS

Please be sure to read this manual thoroughly before using the products.

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.
When using the products for specific purposes, please first make confirmations in areas such as safety, reliability, and quality.
Please understand that we are not in a position to be held responsible for any damage or the like caused by any use exceeding the range or conditions of this specification sheet or by any use in the specific applications.

(1) Aerospace/Aviation equipment
(2) Transportation equipment (electric trains, ships, etc.)
(3) Medical equipment
(4) Power-generation control equipment
(5) Atomic energy-related equipment
(6) Seabed equipment
(7) Transportation control equipment
(8) Public information-processing equipment
(9) Military equipment
(10) Electric heating apparatus, burning equipment
(11) Disaster prevention/crime prevention equipment
(12) Safety equipment
(13) Other applications that are not considered general-purpose applications

When using this product in general-purpose standard applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc to ensure higher safety.

Ferrites for EMI Suppression

Product compatible with RoHS directive
Halogen-free

Overview of the BB Series

Bead cores series are easy to handle and are supplied in various materials, shapes and packaging styles to meet for users' requests.

FEATURES

○ Appropriate materials and shapes can be selected from various cores to suppress EMI effectively.

APPLICATION

Imaging devices, audio equipment, automotive electronics, telecommunication devices, office automation equipment, and digital interface various other cables.

○ Absorption EMI and penetrating noise
○ Prevent parasitic oscillation

PART NUMBER CONSTRUCTION

HF30	BB	1.8	×	5	×	0.7	□□□□
Material	Core shape	Outer diameter dimensions(A)		Length dimensions(B)		Inner diameter dimensions(C)	Internal code

RANGE OF USE AND STORAGE TEMPERATURE

Temperature range*	
Operating temperature (°C)	Storage temperature** (°C)
–40 to +85	–40 to +85

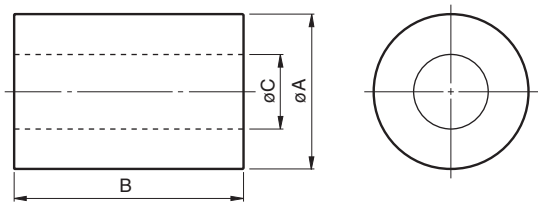
* The temperature range has a different case by materials.
** The Storage temperature range is for after the circuit board is mounted.

○ RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://www.tdk.co.jp/rohs/
○ Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

• All specifications are subject to change without notice.

Ni-Zn BB series

SHAPES AND DIMENSIONS



HF30	BB	1.8	×	5	×	0.7	□□□□
Material	Core shape	Outer diameter dimensions(A)		Length dimensions(B)		Inner diameter dimensions(C)	Internal code

Part No.	Dimensions			Electrical characteristics	
	A (mm)	B	C	Impedance Z typ. (Ω) 23°C 10MHz	100MHz
HF30BB1.8X5X0.7	1.8±0.15	5.0±0.3	0.7±0.1	3.4	36
HF30BB2.5X2X0.8	2.5±0.15	2.0±0.2	0.8±0.1	1.9	20
HF30BB3X5X1	3.0±0.15	5.0±0.3	1.0±0.1	3.3	37
HF30BB3.5X5X1.3	3.5±0.15	5.0±0.3	1.3±0.1	3.2	32
HF30BB5X5X2	5.0±0.15	5.0±0.3	2.0±0.15	2.7	33
HF30BB6.4X5X3.2	6.4±0.2	5.0±0.2	3.2±0.15	2.6	26
HF40BB1.7X1.9X0.7	1.7±0.15	1.9±0.2	0.7±0.1	1.8	16
HF40BB3X5X1	3.0±0.15	5.0±0.3	1.0±0.1	9	60
HF40BB3.4X3X1	3.4±0.15	3.0±0.2	1.0±0.1	7	39
HF40BB3.5X5X1.3	3.5±0.15	5.0±0.3	1.3±0.1	9.1	50
HF40BB4.5X4X2.5-G	4.5±0.15	4.0±0.2	2.5±0.15	4.5	32
HF40BB4.5X5X1.6	4.5±0.15	5.0±0.3	1.6±0.1	11	60
HF40BB5X5X2	5.0±0.15	5.0±0.3	2.0±0.15	9.4	52
HF40BB5X6X2.5	5.0±0.15	6.0±0.3	2.5±0.15	10	50
HF40BB5.5X5X2.5	5.5±0.2	5.0±0.3	2.5±0.15	8.1	43
HF40BB6X3.8X3A-G	6.0±0.2	3.8±0.2	3.0±0.2	4	35
HF57BB2.85X2X1.35	2.85±0.1	2.0±0.15	1.35±0.1	8	23
HF57BB2.85X5X1.35	2.85±0.1	5.0±0.2	1.35±0.1	20	54
HF57BB3.35X2X2	3.35±0.2	2.0±0.1	2.0±0.2	6	20
HF57BB3.5X1X1.6	3.5±0.15	1.0+0, –0.2	1.6±0.1	4.5	17
HF57BB3.5X1.5X1.3	3.5±0.15	1.5±0.15	1.3±0.1	9	23
HF57BB3.5X3X1.3	3.5±0.15	3.0±0.2	1.3±0.1	16	40
HF57BB3.5X5X1.3	3.5±0.15	5.0±0.3	1.3±0.1	28	65
HF57BB3.6X3.2X2.7	3.6±0.15	3.2±0.2	2.7±0.15	6	17
HF57BB4X2X2	4.0±0.15	2.0±0.15	2.0±0.15	8	24
HF57BB4X5X2	4.0±0.15	5.0±0.3	2.0±0.15	19	46
HF57BB4.5X4X2.5	4.5±0.15	4.0±0.2	2.5±0.15	14	37
HF57BB4.8X4.8X2.4	4.8±0.2	4.8±0.2	2.4±0.15	18	49
HF57BB5X5X2	5.0±0.15	5.0±0.3	2.0±0.15	25	59

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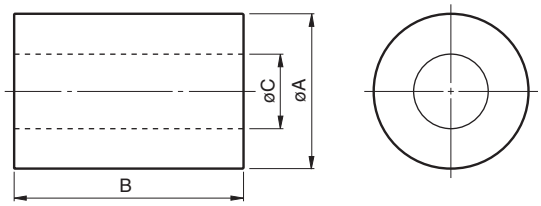
Ni-Zn BB series

SHAPES AND DIMENSIONS



HF70	BB	1.8	×	5	×	0.7	□□□□
Material	Core shape	Outer diameter dimensions(A)		Length dimensions(B)		Inner diameter dimensions(C)	Internal code

Part No.	Dimensions			Electrical characteristics	
	A (mm)	B	C	Impedance Z typ. (Ω) 23°C 10MHz	100MHz
HF70BB1.8X5X0.7	1.8±0.15	5.0±0.3	0.7±0.1	31	48
HF70BB2.5X2.2X0.8	2.5±0.15	2.2±0.2	0.8±0.1	15	27
HF70BB2.5X5X0.8	2.5±0.15	5.0±0.3	0.8±0.1	31	51
HF70BB3X5X1	3.0±0.15	5.0±0.3	1.0±0.1	33	53
HF70BB3.4X3X1	3.4±0.15	3.0±0.2	1.0±0.1	22	36
HF70BB3.5X2X1.3	3.5±0.15	2.0±0.15	1.3±0.1	13	24
HF70BB3.5X5X0.8	3.5±0.15	5.0±0.3	0.8±0.1	40	68
HF70BB3.5X3X1.3	3.5±0.15	3.0±0.2	1.3±0.1	17	28
HF70BB3.5X5X1.3	3.5±0.15	5.0±0.3	1.3±0.1	29	49
HF70BB3.5X10X1.3	3.5±0.15	10.0±0.4	1.3±0.1	53	92
HF70BB4.5X4X2.5	4.5±0.15	4.0±0.2	2.5±0.15	17	30
HF70BB4.5X5X1.6	4.5±0.15	5.0±0.3	1.6±0.1	31	53
HF70BB4X15X1.35	4+0.1, –0.2	15.0±0.5	1.35±0.1	92	155
HF70BB5X5X2	5.0±0.15	5.0±0.3	2.0±0.15	27	42
HF70BB5.5X5X2.5	5.5±0.2	5.0±0.3	2.5±0.15	22	38
HF70BB6X3.8X3	6.0±0.2	3.8±0.2	3.0±0.2	19	31
HF70BB6.4X4.5X3.2	6.4±0.2	4.5±0.2	3.2±0.15	22	37
HF70BB6.4X5X3.2	6.4±0.2	5.0±0.2	3.2±0.15	20	32
HF70BB6.4X10X3.2	6.4±0.2	10.0±0.5	3.2±0.15	40	63
HF70BB9X5X4.5	9.0±0.25	5.0±0.3	4.5±0.15	20	34
HF70BB9X10X4.5	9.0±0.25	10.0±0.4	4.5±0.15	40	68
HF70BB9.5X10.4X4.9	9.52±0.25	10.42±0.25	4.9±0.15	40	70

Ni-Zn BB series

■ELECTRICAL CHARACTERISTICS

□IMPEDANCE VS. FREQUENCY CHARACTERISTICS

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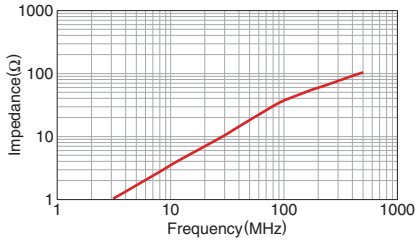

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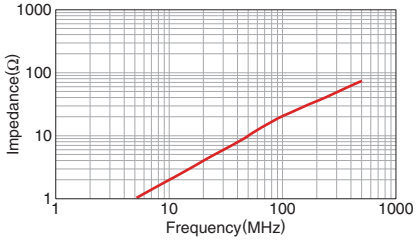

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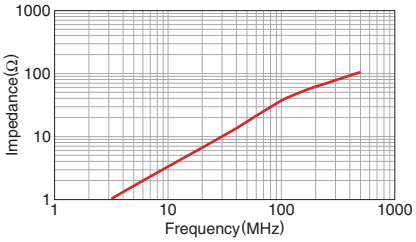

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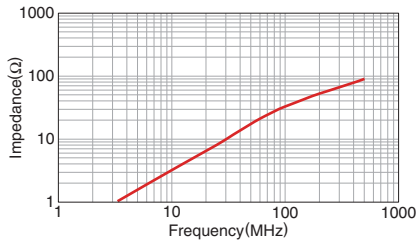

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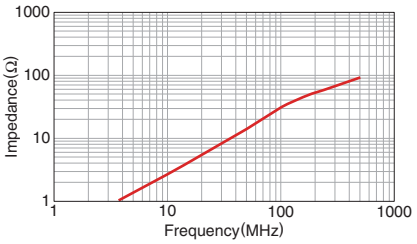

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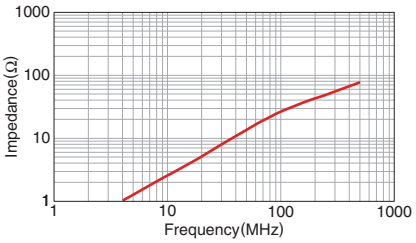

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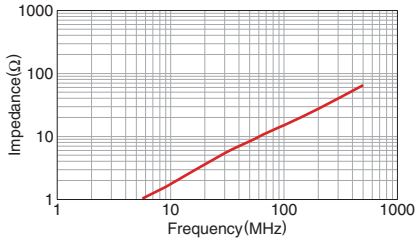

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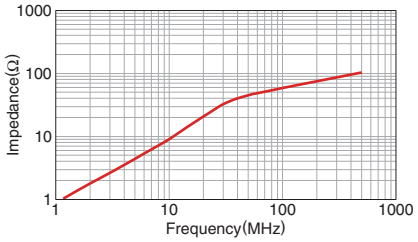

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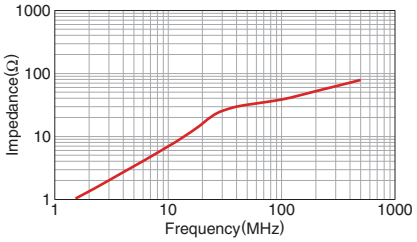

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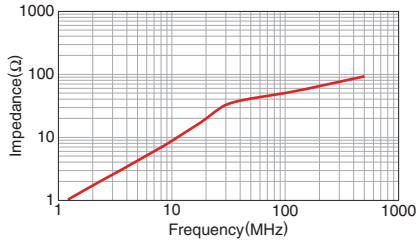

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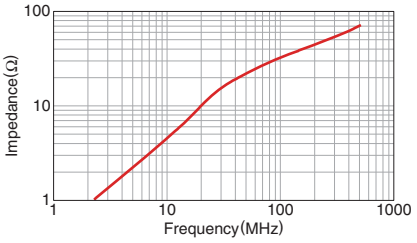

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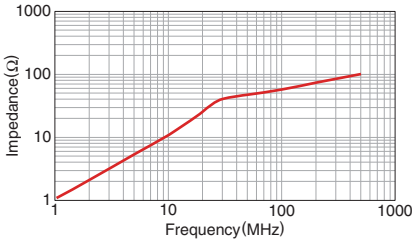

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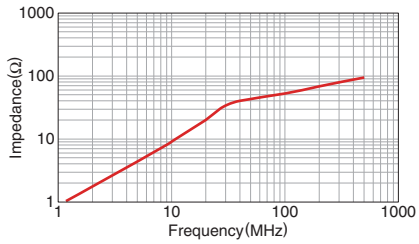

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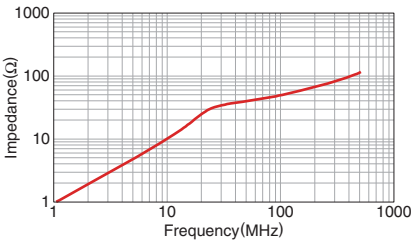

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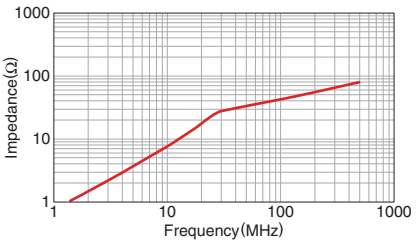

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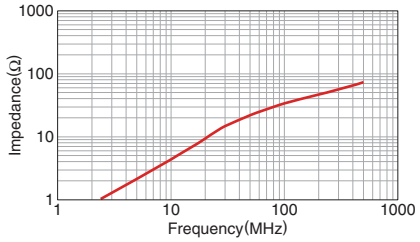
Ni-Zn BB series

■ELECTRICAL CHARACTERISTICS

□IMPEDANCE VS. FREQUENCY CHARACTERISTICS

HF40BB6X3.8X3A-G



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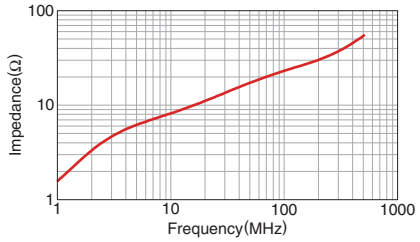

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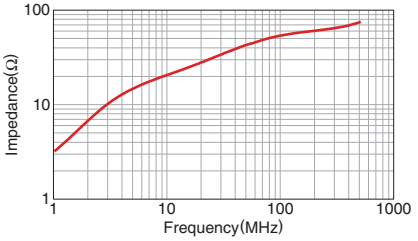

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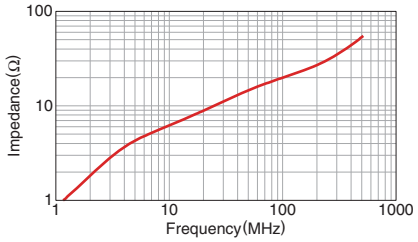

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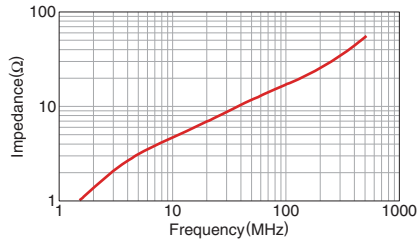

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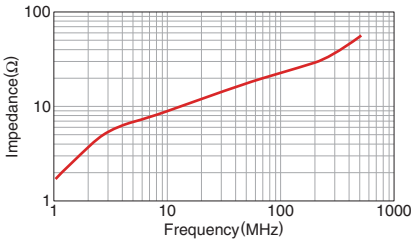

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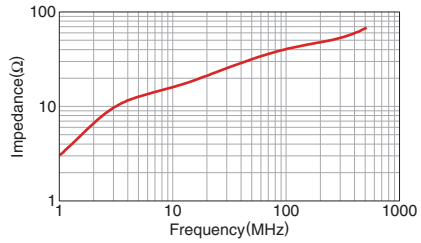

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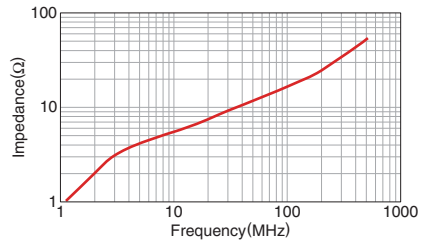

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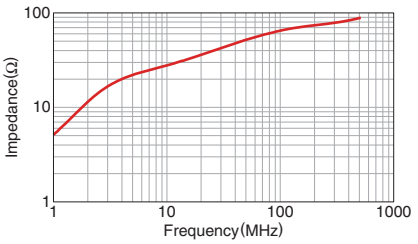

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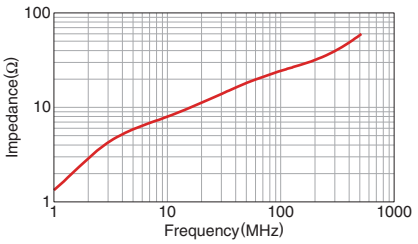

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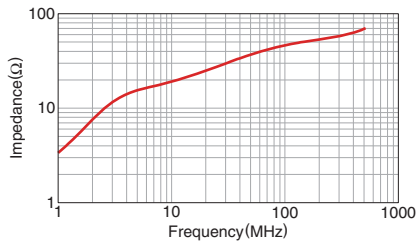

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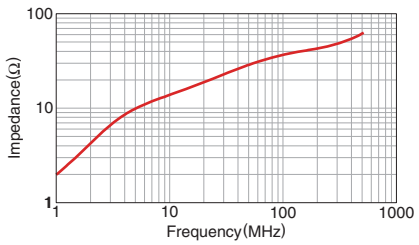

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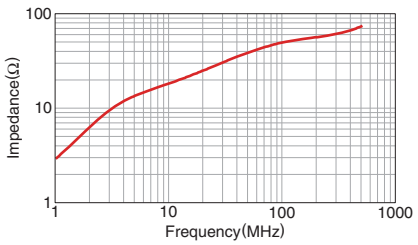
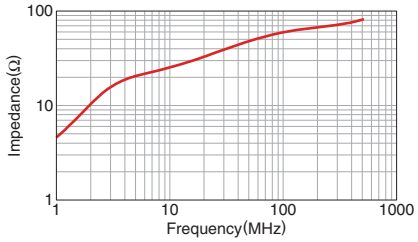


Ni-Zn BB series

■ELECTRICAL CHARACTERISTICS

□IMPEDANCE VS. FREQUENCY CHARACTERISTICS

HF57BB5X5X2



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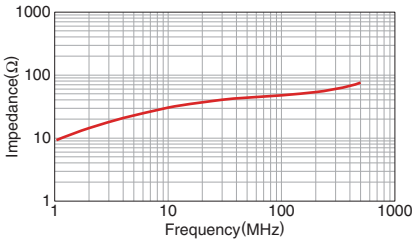

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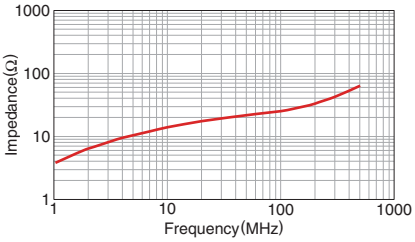

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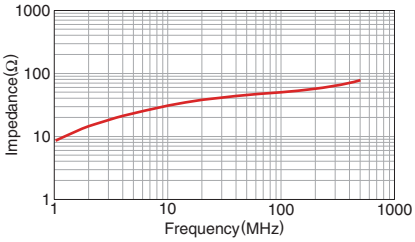

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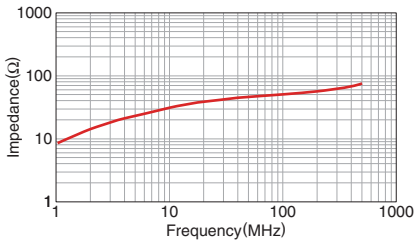

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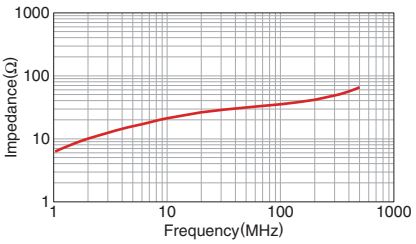

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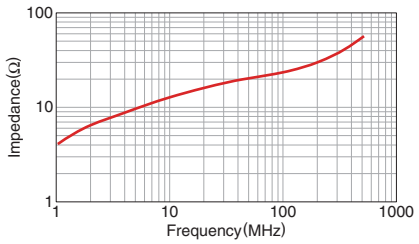

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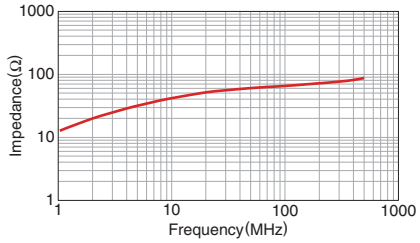

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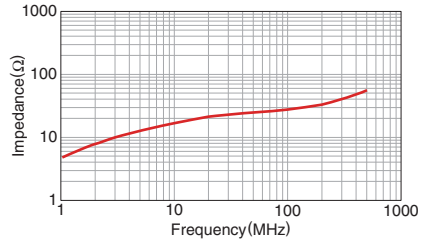

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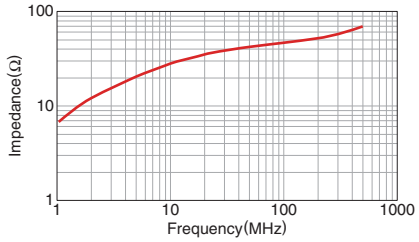

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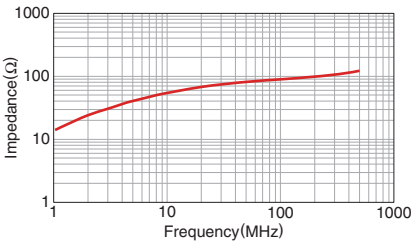

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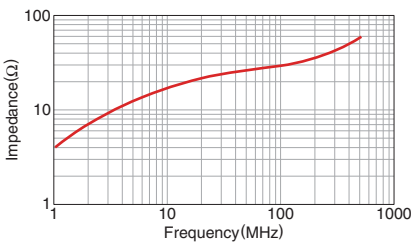

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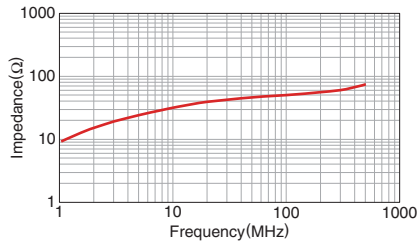

• All specifications are subject to change without notice.

Ni-Zn BB series

■ELECTRICAL CHARACTERISTICS

□IMPEDANCE VS. FREQUENCY CHARACTERISTICS

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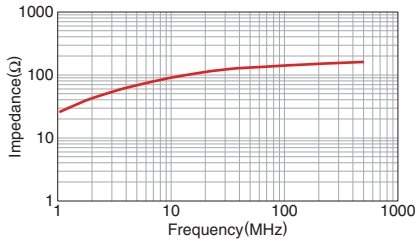

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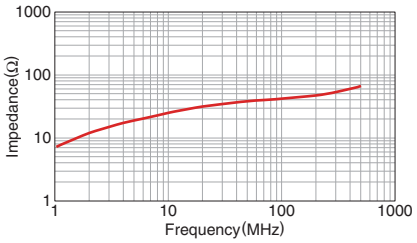

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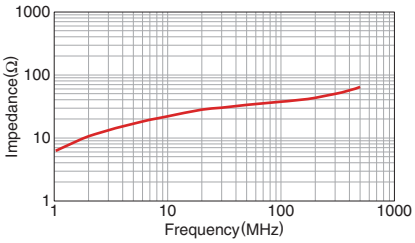

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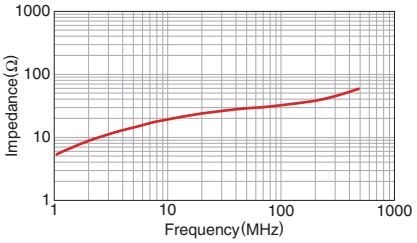

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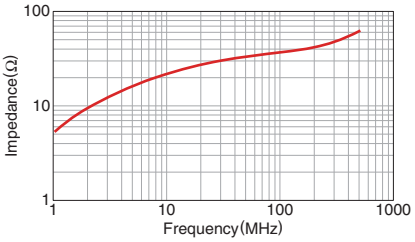

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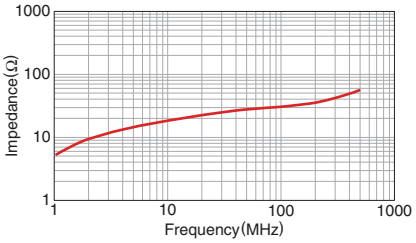

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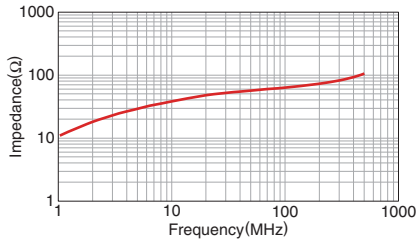

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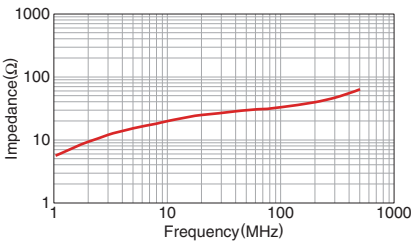

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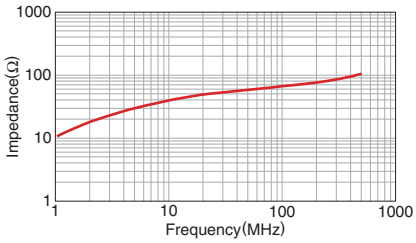
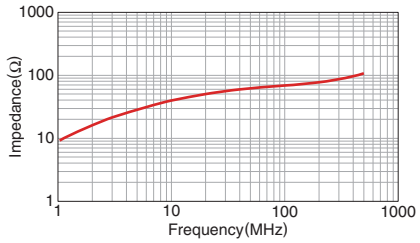
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