

Ferrites for EMI Suppression

Ferrite Beads

BB Series(1 Hole)

Issue date: May 2011

- All specifications are subject to change without notice.
 - Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
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Ferrite Cores for EMI Suppression

Ferrite Beads

BB Series(1 Hole)

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.

APPLICATIONS

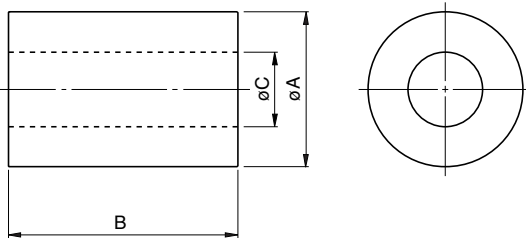
Video, acoustic, office automation equipment, communication equipment, automotive electronic equipment and others.

- Absorption EMI and penetrating noise
- Prevent parasitic oscillation

MATERIAL CHARACTERISTICS

Material	Initial permeability μ_i	Temperature factor of initial permeability $\alpha_{\mu ir} \times 10^{-6}/^{\circ}\text{C}$	Curie temperature T_c ($^{\circ}\text{C}$)	Saturation magnetic flux density B_s (mT)
HF70	1500	1 to 6	>100	280[H=1600A/m]
HF57	600	3 to 15	>150	370[H=4000A/m]
HF40	120	8 to 18	>250	410[H=4000A/m]
HF30	45	5 to 15	>300	320[H=4000A/m]

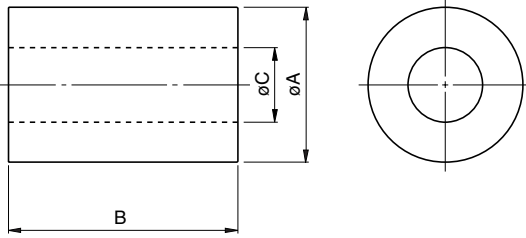
SHAPES AND DIMENSIONS/CHARACTERISTICS



Part No.	Dimensions (mm)			Impedance(Ω)[at 23°C]	
	A	B	C	10MHz typ.	100MHz typ.
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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SHAPES AND DIMENSIONS/CHARACTERISTICS

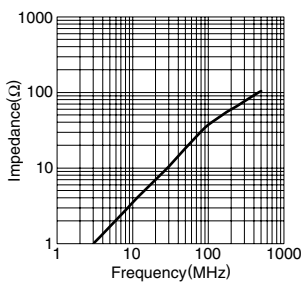


Part No.	Dimensions (mm)			Impedance(Ω)[at 23°C]	
	A	B	C	10MHz typ.	100MHz typ.
HF70BB1.8X5X0.7	1.8±0.15	5.0±0.3	0.7±0.1	31	48
HF70BB2.5X2.2X0.8	2.5±0.15	2.2±0.2	0.8±0.1	15	27
HF70BB2.5X5X0.8	2.5±0.15	5.0±0.3	0.8±0.1	31	51
HF70BB3X5X1	3.0±0.15	5.0±0.3	1.0±0.1	33	53
HF70BB3.4X3X1	3.4±0.15	3.0±0.2	1.0±0.1	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

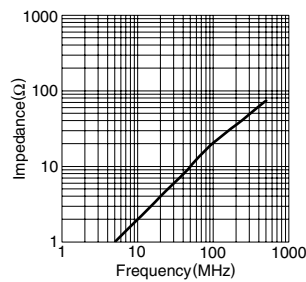
TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS

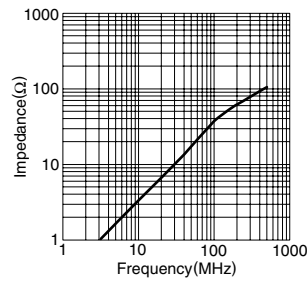
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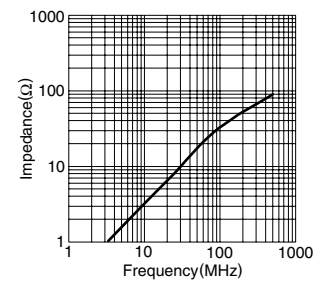
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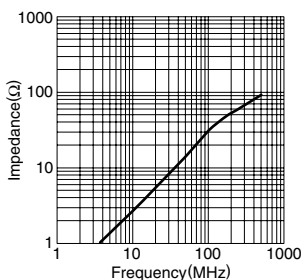
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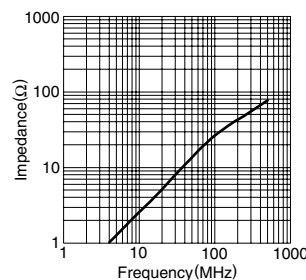
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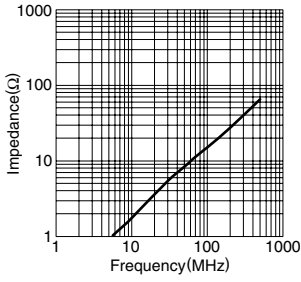


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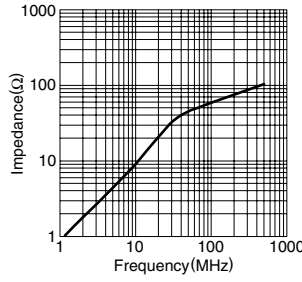


TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS

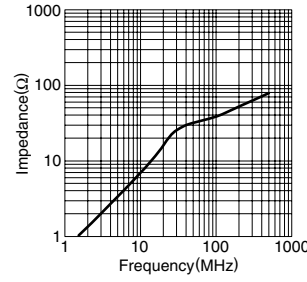
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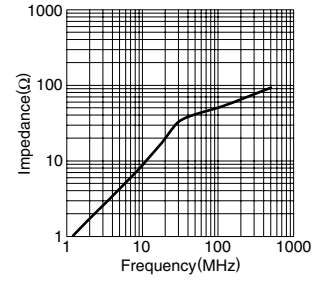
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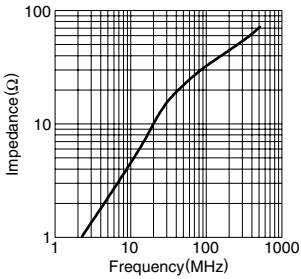
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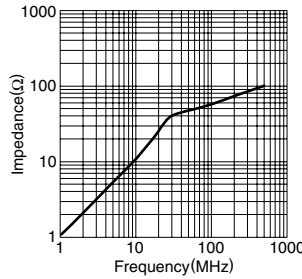
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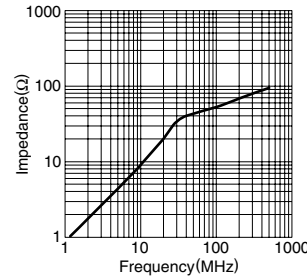
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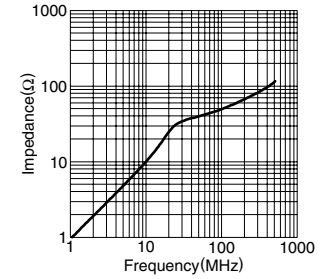
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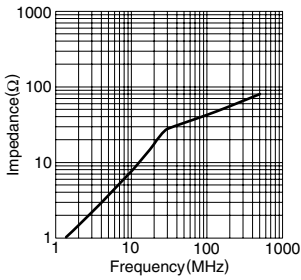
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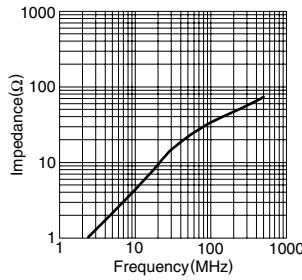
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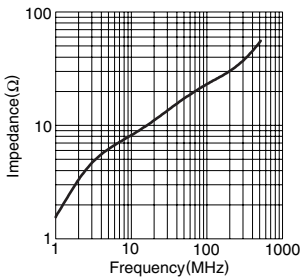
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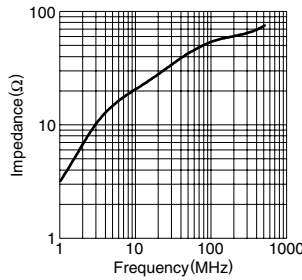
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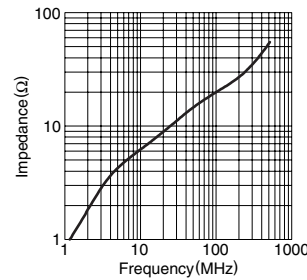
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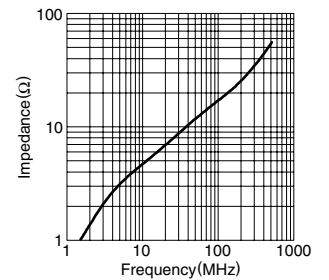
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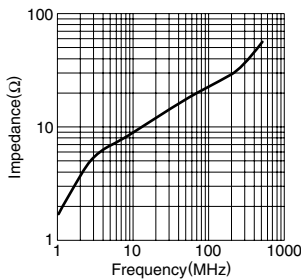
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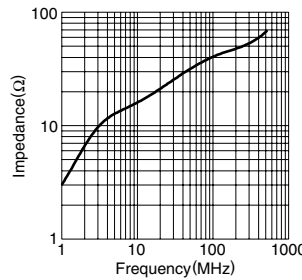
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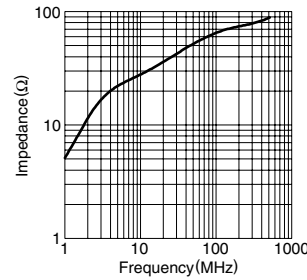
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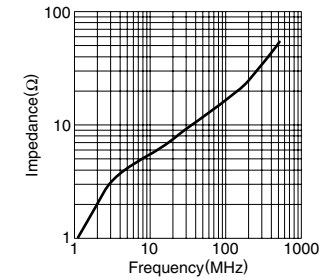
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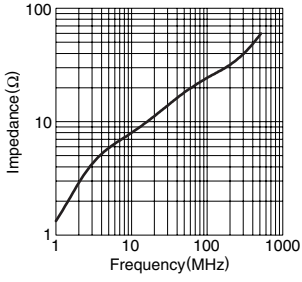
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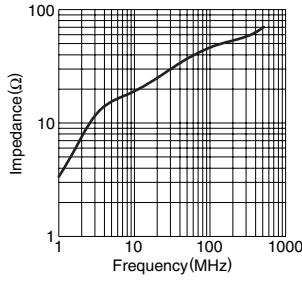
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TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS

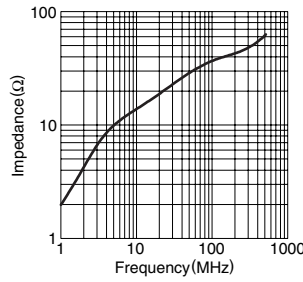
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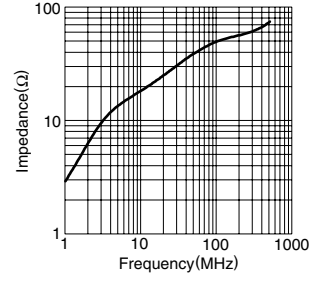
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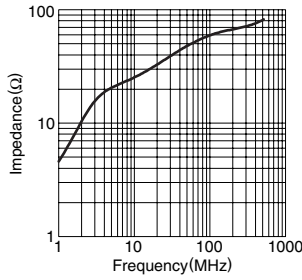
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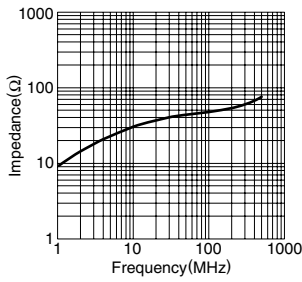
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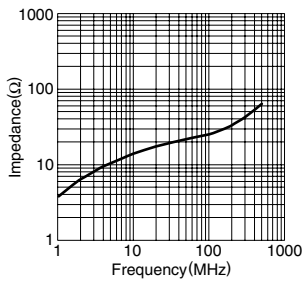
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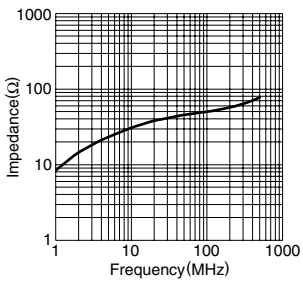
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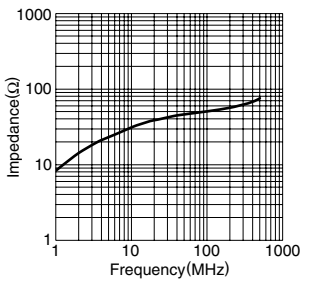
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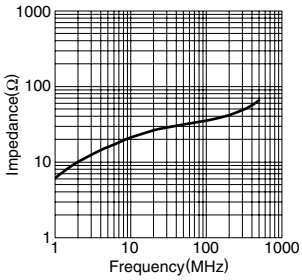
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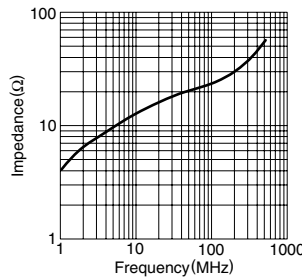
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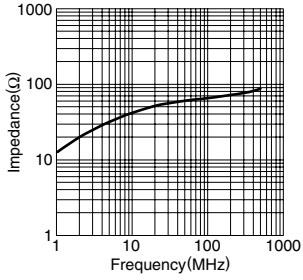
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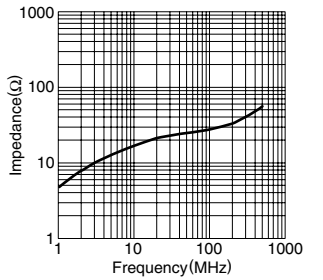
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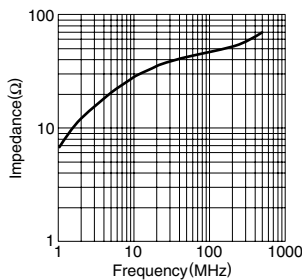
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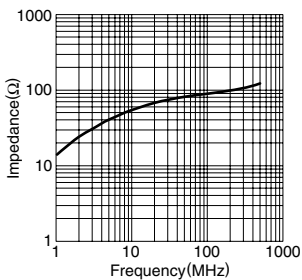
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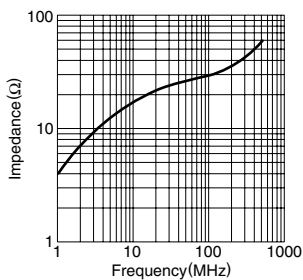
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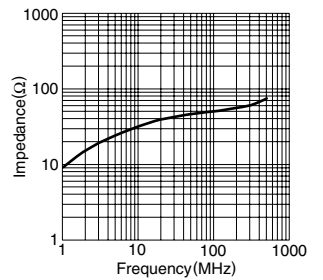
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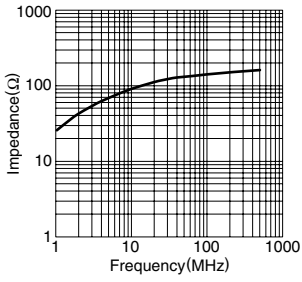
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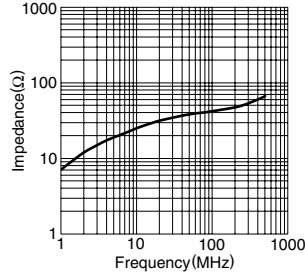
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TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS

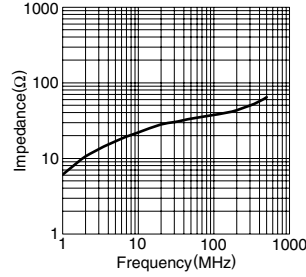
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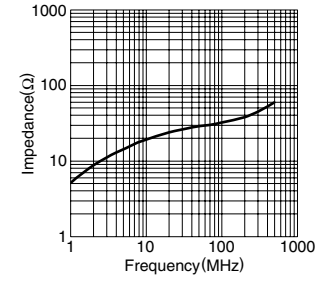
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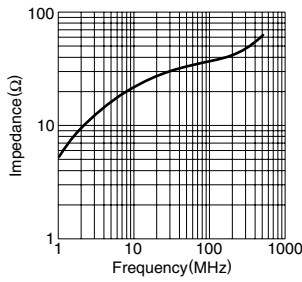
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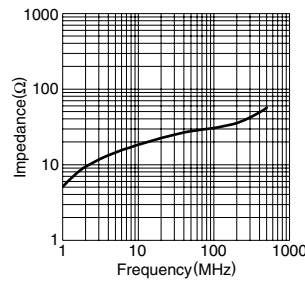
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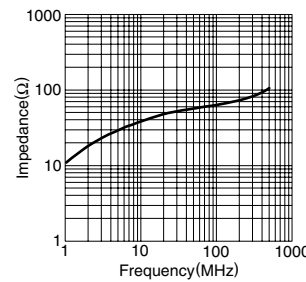
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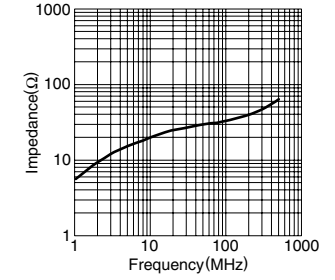
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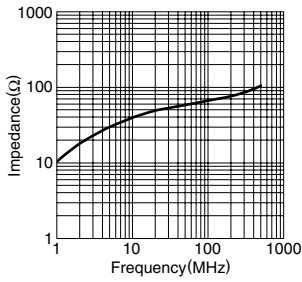
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