On-Board Type (DC) EMI Suppression Filters (EMIFIL®)

Chip Ferrite Beads Part Numbering

Chip Ferrite Beads

(Part Number) BL M 18 AG 102 S N 1 D
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶Product ID

Product ID	
BL	Chip Ferrite Beads

❷Type

Code	Type
A	Array Type
M	Monolithic Type

❸Dimensions (L×W)

Code	Dimensions (L×W)	EIA
03	0.6×0.3mm	0201
15	1.0×0.5mm	0402
18	1.6×0.8mm	0603
2A	2.0×1.0mm	0804
21	2.0×1.25mm	0805
31	3.2×1.6mm	1206
41	4.5×1.6mm	1806

❺Impedance

Expressed by three figures. The unit is in ohm (Ω). The first and second figures are significant digits, and the third figure expresses the number of zeros which follow the two figures.

❻Performance

Expressed by a letter.

Ex.)

Code	Performance
S	Sn Plating
A	Au Plating

❼Category

Code	Category
N	Standard Type

❽Number of Circuits

Code	Number of Circuits
1	1 Circuit
4	4 Circuits

❹Characteristics/Applications

Code *1	Characteristics/Applications	Series
AF	for General Use	**BLM31/BLM41**
AG		**BLM03/BLM15/BLM18/BLM21/BLM31/BLA2A/BLA31**
AJ		**BLM31**
BA	for High-speed Signal Lines	**BLM18**
BB		**BLM15/BLM18/BLM21/BLA2A**
BD		**BLM15/BLM18/BLM21/BLA2A/BLA31**
BE		**BLM31**
PF	for Power Supplies	**BLM41**
PG		**BLM15/BLM18/BLM21/BLM31/BLM41**
RK	for Digital Interface	**BLM18/BLM21**
HG	for GHz Band General Use	**BLM15/BLM18**
EG	for GHz Band General Use (Low DC Resistance type)	
HB	for GHz Band High-speed Signal Line	**BLM18**
HD		**BLM15/BLM18**
HK	for GHz Band Digital Interface	**BLM18**
GG	for High-GHz Band General Use	**BLM18**

*1 Frequency characteristics vary with each code.

❾Packaging

Code	Packaging	Series
K	Plastic Taping (ø330mm Reel)	**BLM31/BLM41/BLM21** *1
L	Plastic Taping (ø180mm Reel)	
B	Bulk	All series
J	Paper Taping (ø330mm Reel)	**BLM15/BLM18/BLM21***2 **/BLA31**
D	Paper Taping (ø180mm Reel)	**BLM03/BLM15/BLM18/BLM21***2 **/BLA2A/BLA31**
C	Bulk Case	**BLM15/BLM18**

*1 BLM21BD222SN1/BLM21BD272SN1 only.
*2 Except BLM21BD222SN1/BLM21BD272SN1

On-Board Type (DC) EMI Suppression Filters (EMIFIL®)

Chip Ferrite Bead **BLM** Series

1

Essential for Noise Suppression in High Speed Signal Lines and DC Power Lines

The chip ferrite bead BLM series comprises ferrite beads in the shape of a chip. This ferrite bead generates a high impedance which at high frequencies mainly consists of a resistance element. The BLM series is effective in circuits without stable ground lines because the BLM series does not need a connection to ground.

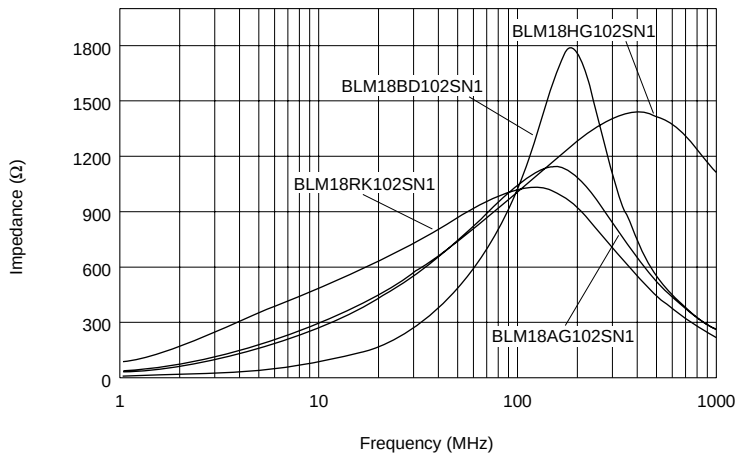
Chip sizes of 0.6x0.3, 1.0x0.5, 1.6x0.8, 2.0x1.25, 3.2x1.6 and 4.5x1.6mm are cataloged. (The BLA series of array type chip ferrite beads is also cataloged.)
The nickel barrier structure of the external electrodes provides excellent solder heat resistance.

■Features

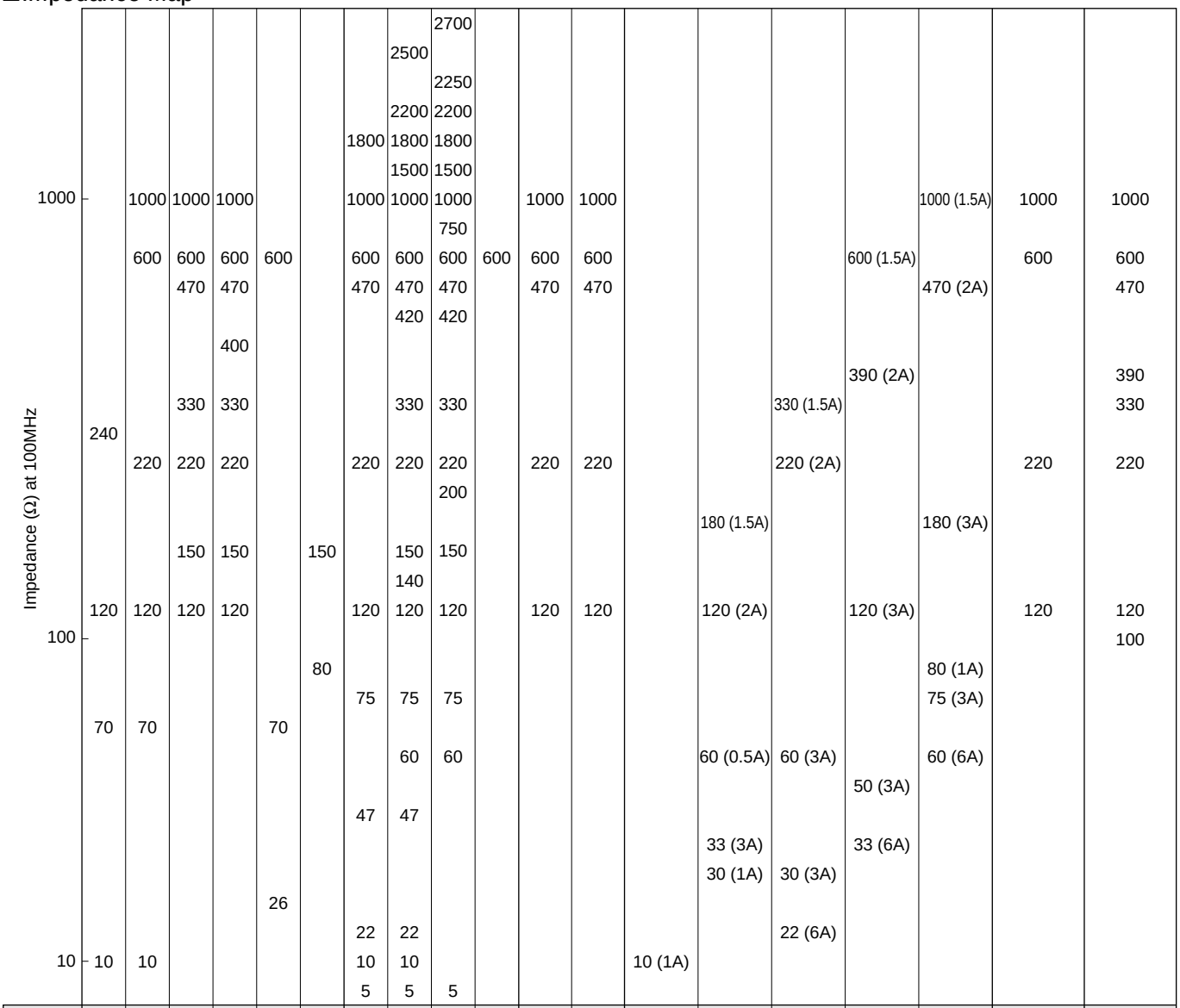
The BLM series comprises the R series (for digital interface), the A series (for standard), the B series (for high speed signal), the P series (for large current), and the H/E/G series (for GHz range noise suppression).

1. BLM□□R series – For Digital Interface
   The BLM-R series can be used in Digital Interface. Resistance of BLM-R series especially grows in the lower frequency range. Therefore BLM-R series is less effective for digital signal waveform at low frequency range and can suppress the ringing.
2. BLM□□A series – For Standard
   The BLM-A series generates an impedance from the relatively low frequencies. Therefore the BLM-A series is effective in noise suppression in the wide frequency range (30MHz – several hundred MHz).
3. BLM□□B series – For High Speed Signal
   The BLM-B series can minimize attenuation of the signal waveform due to its sharp impedance characteristics. Various impedances are available to match signal frequency.
4. BLM□□P series – For Large Current
   The BLM-P series can be used in high current circuits due to its low DC resistance. It can match power lines to a maximum of 6A DC (BLM41P).
5. BLM□□H/E/G series – For GHz Range Noise Suppression
   The BLM□□H/E/G series has a modified internal electrode structure that minimizes stray capacitance and increases the effective frequency range.

[Impedance Characteristics]



■Impedance Map



mm	0603	1005	1608	2012	3216	4516	1005	1608	2012	3216	1608	2012	1005	1608	2012	3216	4516	1005	1608
EIA Code	0201	0402	0603	0805	1206	1806	0402	0603	0805	1206	0603	0805	0402	0603	0805	1206	1806	0402	0603
	For Standard **BLM□□A**						For High Speed Signal **BLM□□B**				For Digital Interface **BLM□□R**		For Large Current **BLM□□P** ( )=Rated Current					GHz Range Noise Suppression Type **BLM15H/E**	GHz Range Noise Suppression Type **BLM18H/E/G**

■BLM Series

Size (EIA Code)	Type	Part Number	Impedance (Ω)		Rated Current (mA)
			at 100MHz	at 1GHz	
0201	For Standard	**BLM03AG100SN1**	10 (Typ.)	-	500
		BLM03AG700SN1	70 (Typ.)	-	200
		BLM03AG121SN1	120±25%	-	200
		BLM03AG241SN1	240±25%	-	100
0402	For Standard	**BLM15AG100SN1**	10 (Typ.)	-	1000
		BLM15AG700SN1	70 (Typ.)	-	500
		BLM15AG121SN1	120±25%	-	
		BLM15AG221SN1	220±25%	-	300
		BLM15AG601SN1	600±25%	-	
		BLM15AG102SN1	1000±25%	-	200
		BLM15AG601AN1	600±25%	140 (Typ.)	300
		BLM15AG102AN1	1000±25%	300 (Typ.)	200
	For High Speed Signal (Sharp impedance characteristics)	**BLM15BB050SN1**	5±25%	-	500
		BLM15BB100SN1	10±25%	-	300
		BLM15BB220SN1	22±25%	-	
		BLM15BB470SN1	47±25%	-	
		BLM15BB750SN1	75±25%	-	
		BLM15BB121SN1	120±25%	-	
		BLM15BB221SN1	220±25%	-	200
		BLM15BD471SN1	470±25%	-	
		BLM15BD601SN1	600±25%	-	
		BLM15BD102SN1	1000±25%	-	
		BLM15BD182SN1	1800±25%	-	100
	For Large Current	**BLM15PG100SN1**	10 (Typ.)	-	1000
0603	For Standard	**BLM18AG121SN1**	120±25%	-	200
		BLM18AG151SN1	150±25%	-	
		BLM18AG221SN1	220±25%	-	
		BLM18AG331SN1	330±25%	-	
		BLM18AG471SN1	470±25%	-	
		BLM18AG601SN1	600±25%	-	
		BLM18AG102SN1	1000±25%	-	100
	For High Speed Signal (Sharp impedance characteristics)	**BLM18BA050SN1**	5±25%	-	500
		BLM18BB050SN1		-	700
		BLM18BA100SN1	10±25%	-	500
		BLM18BB100SN1		-	
		BLM18BA220SN1	22±25%	-	
		BLM18BB220SN1		-	
		BLM18BA470SN1	47±25%	-	300
		BLM18BB470SN1		-	500
		BLM18BB600SN1	60±25%	-	200
		BLM18BA750SN1	75±25%	-	300
		BLM18BB750SN1		-	200
		BLM18BA121SN1	120±25%	-	200
		BLM18BB121SN1		-	
		BLM18BD121SN1		-	
		BLM18BB141SN1	140±25%	-	
		BLM18BB151SN1	150±25%	-	
		BLM18BD151SN1		-	
		BLM18BB221SN1	220±25%	-	
		BLM18BD221SN1		-	
		BLM18BB331SN1	330±25%	-	
		BLM18BD331SN1		-	
		BLM18BD421SN1	420±25%	-	
		BLM18BB471SN1	470±25%	-	50
		BLM18BD471SN1		-	200
		BLM18BD601SN1	600±25%	-	200

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Size (EIA Code)	Type		Part Number	Impedance (Ω)		Rated Current (mA)
				at 100MHz	at 1GHz	
0603	For High Speed Signal (Sharp impedance characteristics)		**BLM18BD102SN1**	1000±25%	-	100
			BLM18BD152SN1	1500±25%	-	50
			BLM18BD182SN1	1800±25%	-	
			BLM18BD222SN1	2200±25%	-	
			BLM18BD252SN1	2500±25%	-	
	For Digital Interface		**BLM18RK121SN1**	120±25%	-	200
			BLM18RK221SN1	220±25%	-	
			BLM18RK471SN1	470±25%	-	
			BLM18RK601SN1	600±25%	-	
			BLM18RK102SN1	1000±25%	-	
	For Large Current		**BLM18PG300SN1**	30 (Typ.)	-	1000
			BLM18PG330SN1	33±25%	-	3000*
			BLM18PG600SN1	60 (Typ.)	-	500
			BLM18PG121SN1	120±25%	-	2000*
			BLM18PG181SN1	180±25%	-	1500*
	GHz Range	For Standard	**BLM15HG601SN1**	600±25%	1000±40%	200
			BLM15HG102SN1	1000±25%	1400±40%	100
			BLM18HG471SN1	470±25%	600 (Typ.)	200
			BLM18HG601SN1	600±25%	700 (Typ.)	
			BLM18HG102SN1	1000±25%	1000 (Typ.)	100
		For High Speed Signal	**BLM18HB121SN1**	120±25%	500±40%	200
			BLM18HB221SN1	220±25%	1100±40%	100
			BLM18HB331SN1	330±25%	1600±40%	50
			BLM15HD601SN1	600±25%	1400±40%	100
			BLM15HD102SN1	1000±25%	2000±40%	50
			BLM18HD471SN1	470±25%	1000 (Typ.)	100
			BLM18HD601SN1	600±25%	1200 (Typ.)	
			BLM18HD102SN1	1000±25%	1700 (Typ.)	50
		For Digital Interface	**BLM18HK331SN1**	330±25%	400±40%	200
			BLM18HK471SN1	470±25%	600±40%	
			BLM18HK601SN1	600±25%	700±40%	100
			BLM18HK102SN1	1000±25%	1200±40%	50
		For Standard (Low DC Resistance Type)	**BLM15EG121SN1**	120±25%	145 (Typ.)	1500*
			BLM15EG221SN1	220±25%	270 (Typ.)	700*
			BLM18EG101TN1	100±25%	140 (Typ.)	2000*
			BLM18EG121SN1	120±25%	145 (Typ.)	2000*
			BLM18EG221TN1	220±25%	300 (Typ.)	1000
			BLM18EG331TN1	330±25%	450 (Typ.)	500
			BLM18EG391TN1	390±25%	520 (Typ.)	500
			BLM18EG471SN1	470±25%	550 (Typ.)	500
			BLM18EG601SN1	600±25%	700 (Typ.)	500
			BLM18GG471SN1	470±25%	1800±30%	100
0805	For Standard		**BLM21AG121SN1**	120±25%	-	200
			BLM21AG151SN1	150±25%	-	
			BLM21AG221SN1	220±25%	-	
			BLM21AG331SN1	330±25%	-	
			BLM21AG471SN1	470±25%	-	
			BLM21AG601SN1	600±25%	-	
			BLM21AG102SN1	1000±25%	-	

* Please see "Derating of Rated Current" of each series.

Continued on the following page.

Continued from the preceding page.

Size (inches)	Type	Part Number	Impedance (Ω)		Rated Current (mA)
			at 100MHz	at 1GHz	
0805	For High Speed Signal (Sharp impedance characteristics)	**BLM21BB050SN1**	5±25%	-	500
		BLM21BB600SN1	60±25%	-	200
		BLM21BB750SN1	75±25%	-	
		BLM21BB121SN1	120±25%	-	
		BLM21BD121SN1		-	
		BLM21BB151SN1	150±25%	-	
		BLM21BD151SN1		-	
		BLM21BB201SN1	200±25%	-	
		BLM21BB221SN1	220±25%	-	
		BLM21BD221SN1		-	
		BLM21BB331SN1	330±25%	-	
		BLM21BD331SN1		-	
		BLM21BD421SN1	420±25%	-	
		BLM21BB471SN1	470±25%	-	
		BLM21BD471SN1		-	
		BLM21BD601SN1	600±25%	-	
		BLM21BD751SN1	750±25%	-	
		BLM21BD102SN1	1000±25%	-	
		BLM21BD152SN1	1500±25%	-	
		BLM21BD182SN1	1800±25%	-	
		BLM21BD222SN1	2250 (Typ.)	-	
		BLM21BD222TN1	2200±25%	-	
		BLM21BD272SN1	2700±25%	-	
	For Digital Interface	**BLM21RK121SN1**	120±25%	-	200
		BLM21RK221SN1	220±25%	-	
		BLM21RK471SN1	470±25%	-	
		BLM21RK601SN1	600±25%	-	
		BLM21RK102SN1	1000±25%	-	
	For Large Current	**BLM21PG220SN1**	22±25%	-	6000*
		BLM21PG300SN1	30 (Typ.)	-	3000*
		BLM21PG600SN1	60±25%	-	
		BLM21PG221SN1	220±25%	-	2000*
		BLM21PG331SN1	330±25%	-	1500*
1206	For Standard	**BLM31AJ260SN1**	26±25%	-	500
		BLM31AF700SN1	70±25%	-	200
		BLM31AJ601SN1	600±25%	-	
	For High Speed Signal (Sharp impedance characteristics)	**BLM31BE601FN1**	600±25%	-	300
	For Large Current	**BLM31PG330SN1**	33±25%	-	6000*
		BLM31PG500SN1	50 (Typ.)	-	3000*
		BLM31PG121SN1	120±25%	-	
		BLM31PG391SN1	390±25%	-	2000*
		BLM31PG601SN1	600±25%	-	1500*
1806	For Standard	**BLM41AF800SN1**	80±25%	-	500
		BLM41AF151SN1	150±25%	-	200
	For Large Current	**BLM41PG600SN1**	60 (Typ.)	-	6000*
		BLM41PG750SN1	75 (Typ.)	-	3000*
		BLM41PF800SN1	80 (Typ.)	-	1000*
		BLM41PG181SN1	180±25%	-	3000*
		BLM41PG471SN1	470±25%	-	2000*
		BLM41PG102SN1	1000±25%	-	1500*

* Please see P.54 "Derating of Rated Current".

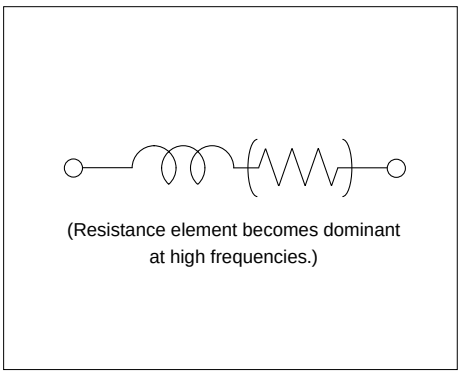
On-Board Type (DC) EMI Suppression Filters (EMIFIL®)

Chip Ferrite Beads BLM03/BLM15/BLM18/BLM21/BLM31/BLM41 Series

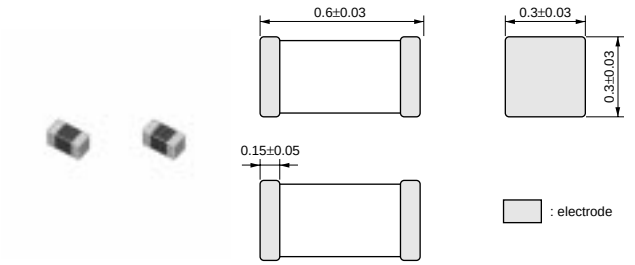
■ Features (BLM_A Series)

The chip ferrite beads BLM series comprises ferrite bead in the shape of a chip. This ferrite bead generates a high impedance which at high frequency mainly consists of a resistance element. The BLM series is effective in circuits without stable ground lines because the BLM series does not need a connection to ground.
The nickel barrier structure of the external electrodes provides excellent solder heat resistance.
BLM_A series generates an impedance from the relatively low frequencies. Therefore BLM_A series is effective in noise suppression in a wide frequency range (30MHz-several hundred MHz).
The small size of BLM03 series (0.6x0.3mm) is suitable for noise suppression of the small equipment such as PA modules for cellular phones.

■ Equivalent Circuit



BLM03A Series (0201 Size)

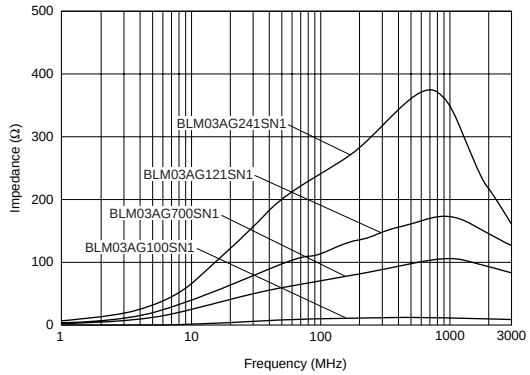


(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM03AG100SN1	10 (Typ.)	500	0.1	-55 to +125
BLM03AG700SN1	70 (Typ.)	200	0.5	-55 to +125
BLM03AG121SN1	120 ±25%	200	0.8	-55 to +125
BLM03AG241SN1	240 ±25%	100	1.0	-55 to +125

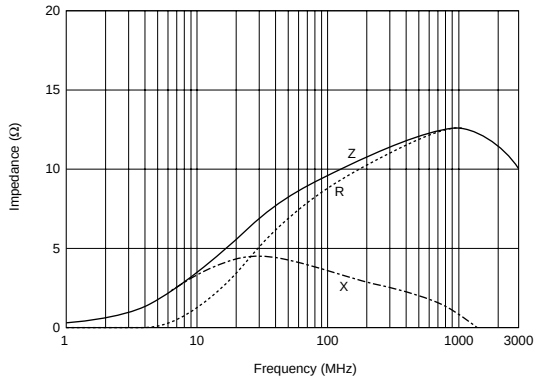
■ Impedance-Frequency (Typical)

BLM03 Series

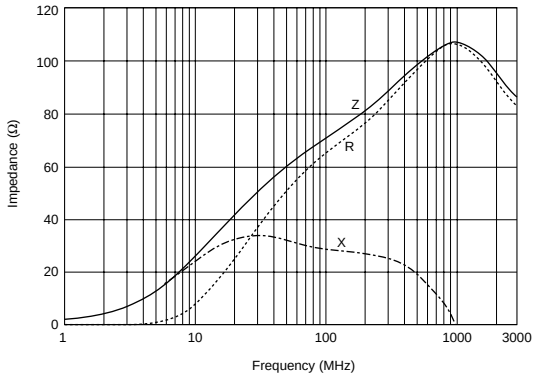


■ Impedance-Frequency Characteristics

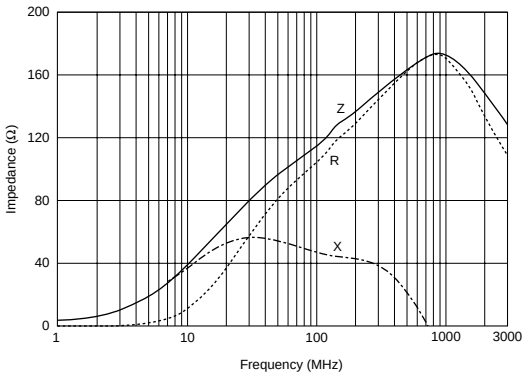
BLM03AG100SN1



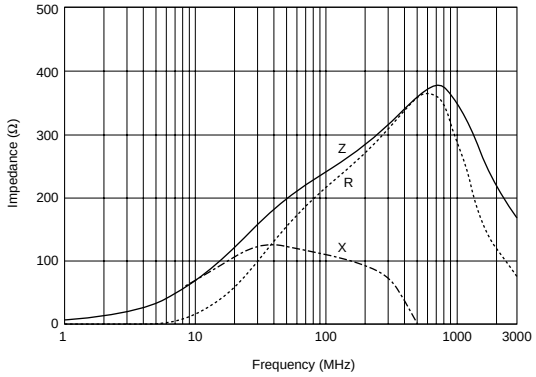
BLM03AG700SN1



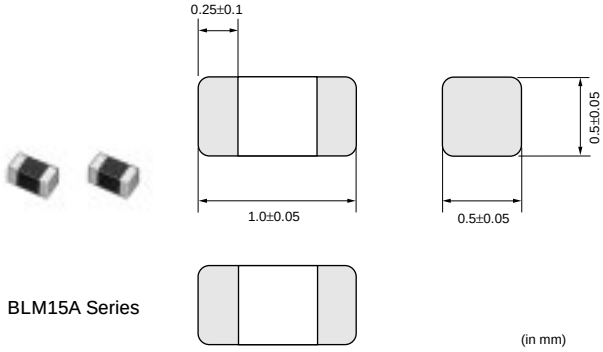
BLM03AG121SN1



BLM03AG241SN1



BLM15A Series (0402 Size)



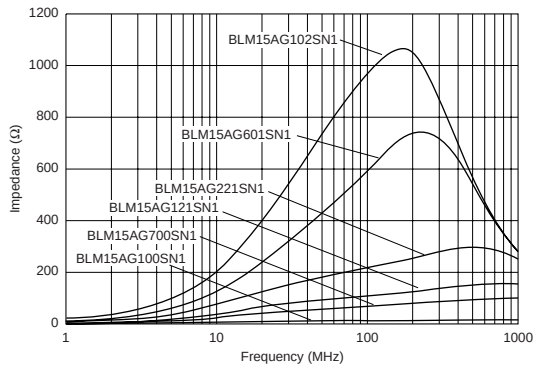
BLM15A Series

(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM15AG100SN1	10 (Typ.)	1000	0.05	-55 to +125
BLM15AG700SN1	70 (Typ.)	500	0.15	-55 to +125
BLM15AG121SN1	120 ±25%	500	0.25	-55 to +125
BLM15AG221SN1	220 ±25%	300	0.35	-55 to +125
BLM15AG601SN1	600 ±25%	300	0.6	-55 to +125
BLM15AG102SN1	1000 ±25%	200	1.0	-55 to +125

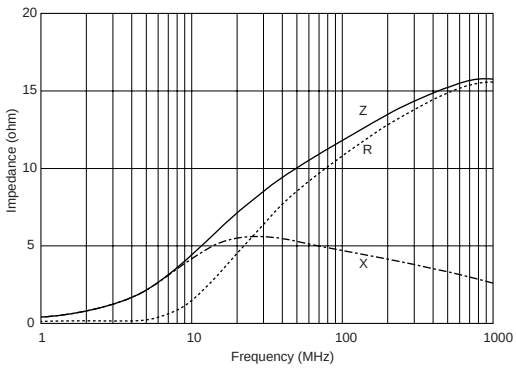
■ Impedance-Frequency (Typical)

BLM15A Series

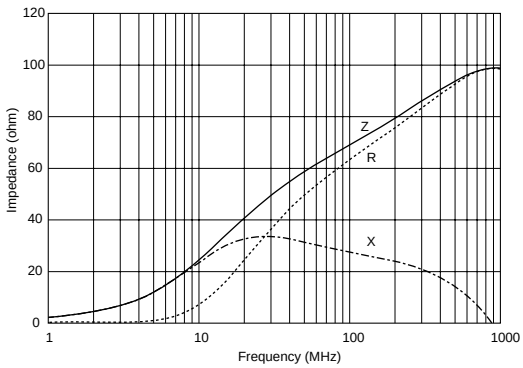


■ Impedance-Frequency Characteristics

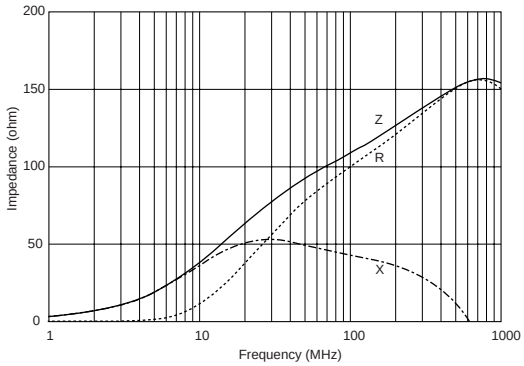
BLM15AG100SN1



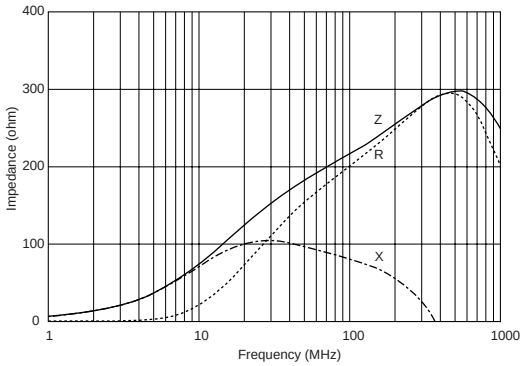
BLM15AG700SN1



BLM15AG121SN1



BLM15AG221SN1



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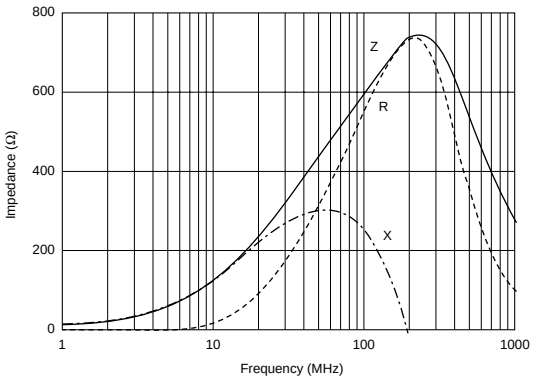
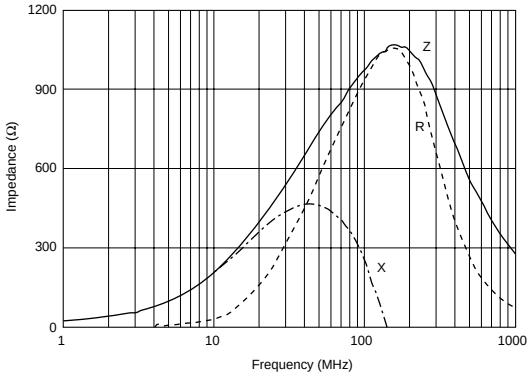
■ Impedance-Frequency Characteristics

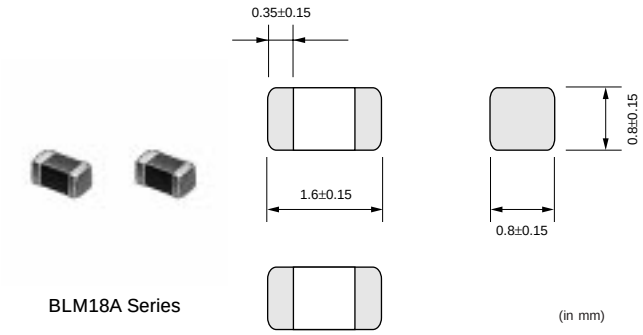
BLM15AG601SN1



BLM15AG102SN1



BLM18A Series (0603 Size)



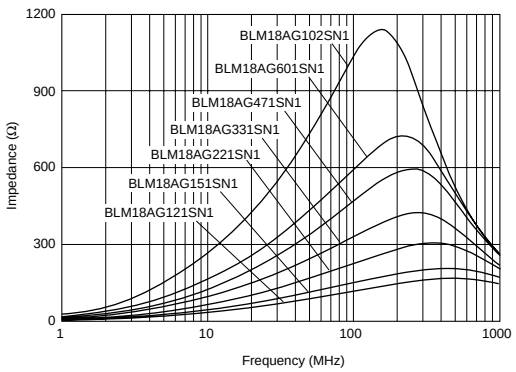
BLM18A Series

(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18AG121SN1	120 ±25%	200	0.20	-55 to +125
BLM18AG151SN1	150 ±25%	200	0.25	-55 to +125
BLM18AG221SN1	220 ±25%	200	0.30	-55 to +125
BLM18AG331SN1	330 ±25%	200	0.45	-55 to +125
BLM18AG471SN1	470 ±25%	200	0.50	-55 to +125
BLM18AG601SN1	600 ±25%	200	0.50	-55 to +125
BLM18AG102SN1	1000 ±25%	100	0.70	-55 to +125

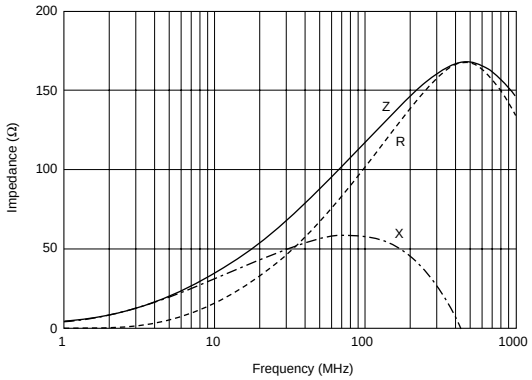
■ Impedance-Frequency (Typical)

BLM18A Series

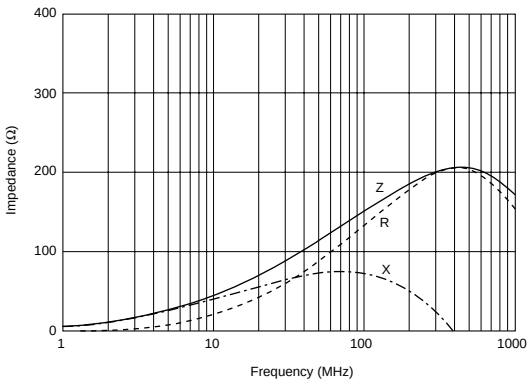


■ Impedance-Frequency Characteristics

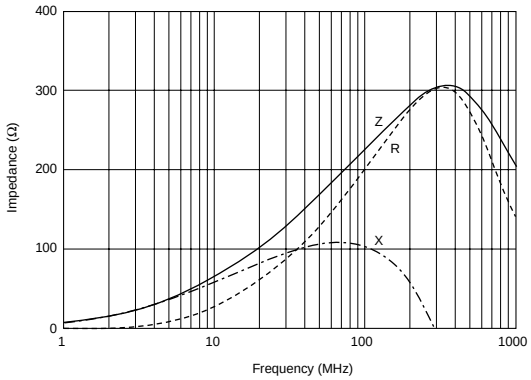
BLM18AG121SN1



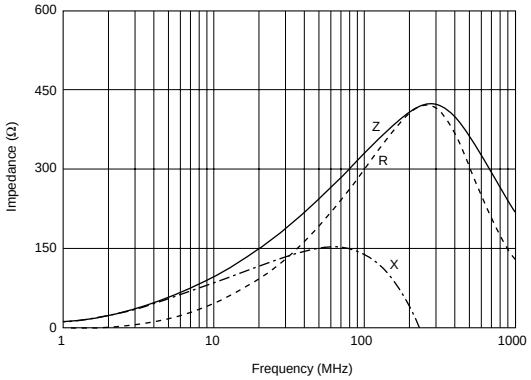
BLM18AG151SN1



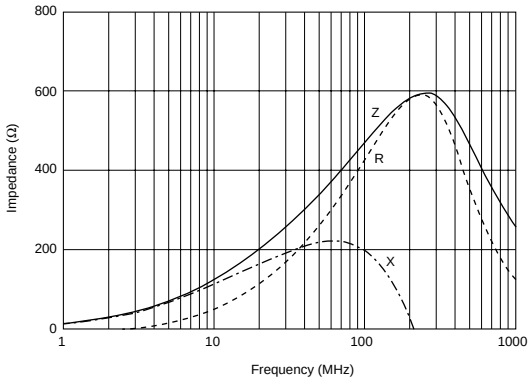
BLM18AG221SN1



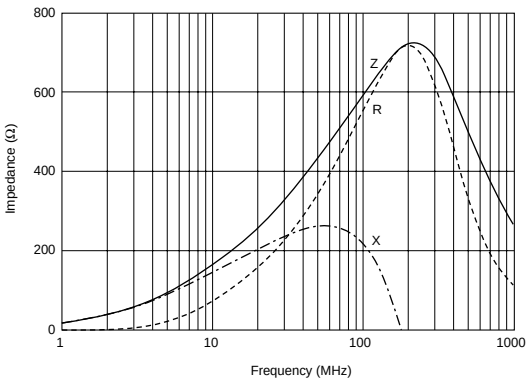
BLM18AG331SN1



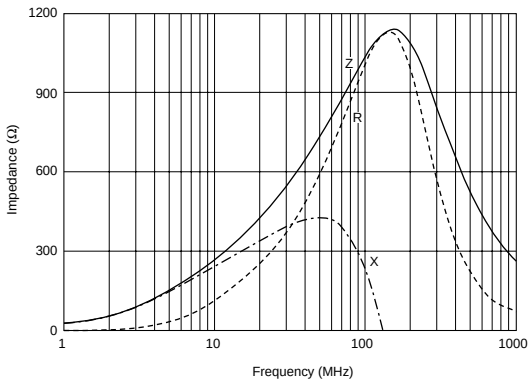
BLM18AG471SN1



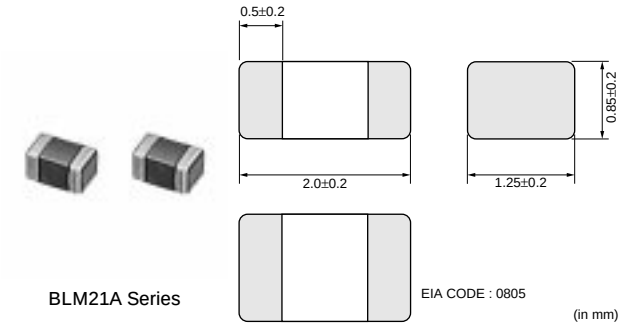
BLM18AG601SN1



BLM18AG102SN1



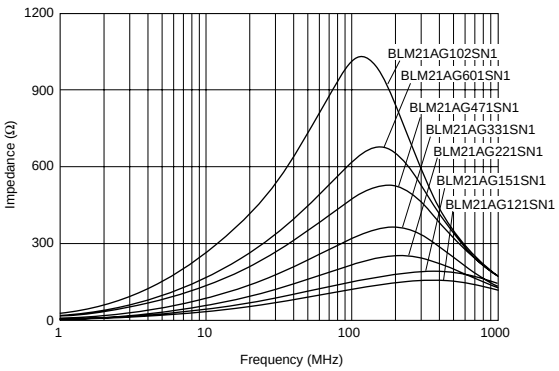
BLM21A Series (0805 Size)



Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM21AG121SN1	120 ±25%	200	0.15	-55 to +125
BLM21AG151SN1	150 ±25%	200	0.15	-55 to +125
BLM21AG221SN1	220 ±25%	200	0.20	-55 to +125
BLM21AG331SN1	330 ±25%	200	0.25	-55 to +125
BLM21AG471SN1	470 ±25%	200	0.25	-55 to +125
BLM21AG601SN1	600 ±25%	200	0.30	-55 to +125
BLM21AG102SN1	1000 ±25%	200	0.45	-55 to +125

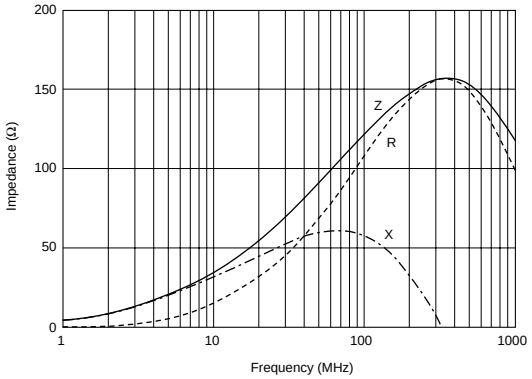
■ Impedance-Frequency (Typical)

BLM21A Series

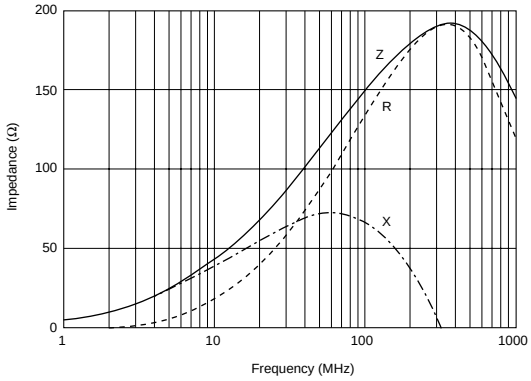


■ Impedance-Frequency Characteristics

BLM21AG121SN1



BLM21AG151SN1



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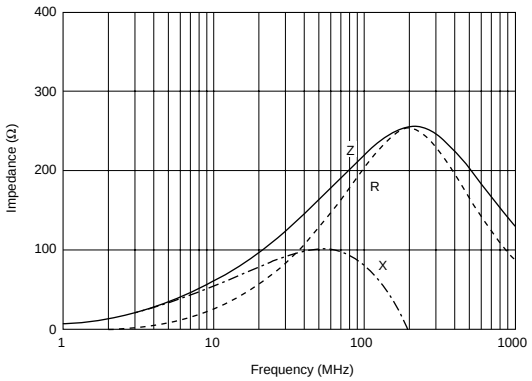
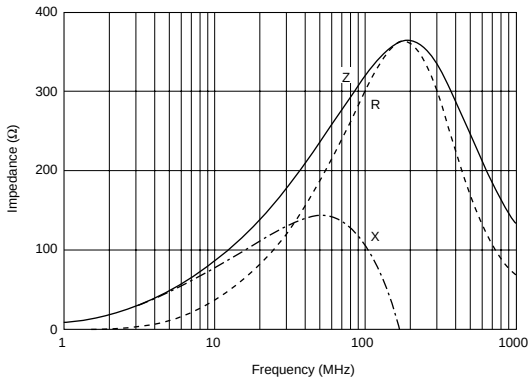
■ Impedance-Frequency Characteristics

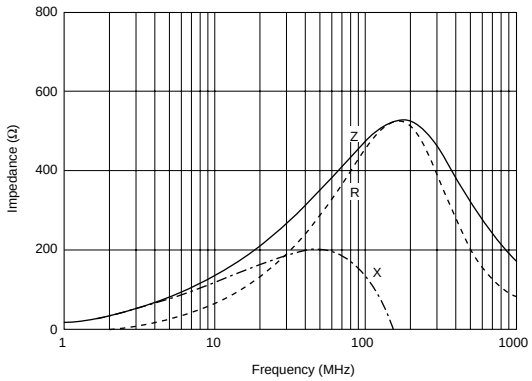
BLM21AG221SN1



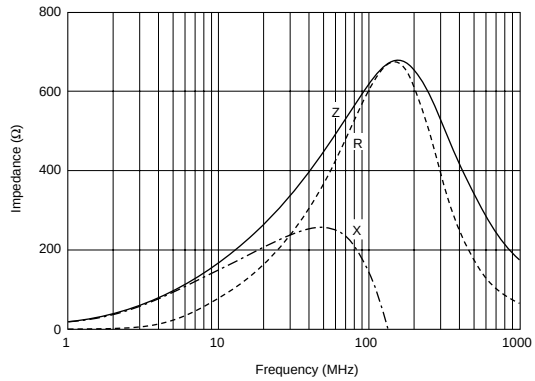
BLM21AG331SN1



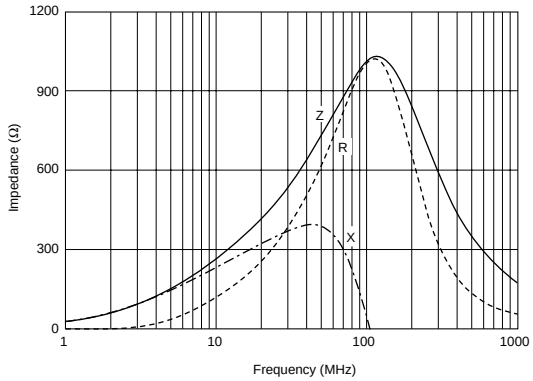
BLM21AG471SN1



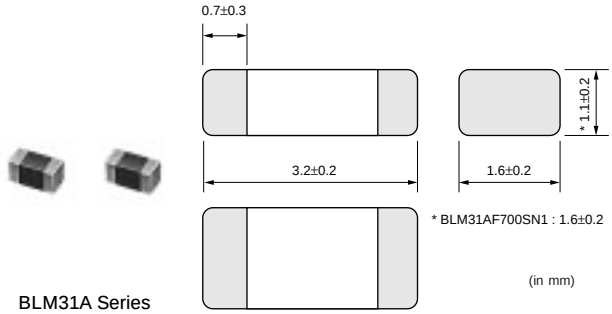
BLM21AG601SN1



BLM21AG102SN1



BLM31A Series (1206 Size)

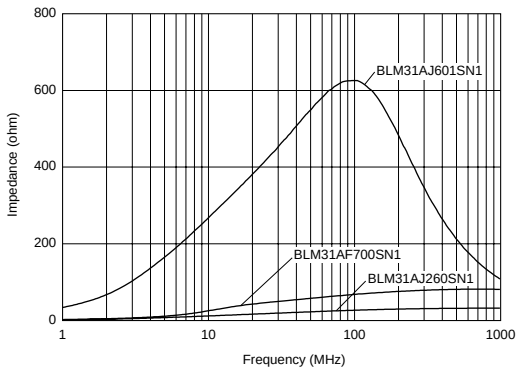


BLM31A Series

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM31AJ260SN1	26 ±25%	500	0.05	-55 to +125
BLM31AF700SN1	70 ±25%	200	0.15	-55 to +125
BLM31AJ601SN1	600 ±25%	200	0.90	-55 to +125

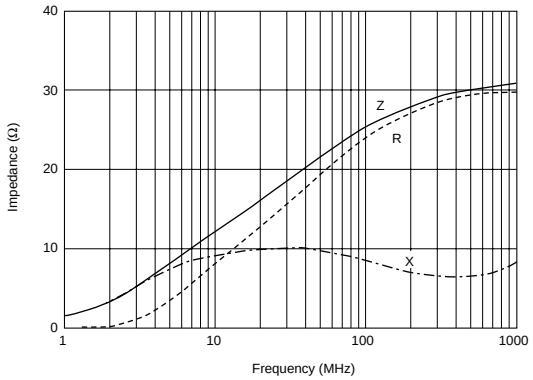
■ Impedance-Frequency (Typical)

BLM31A Series

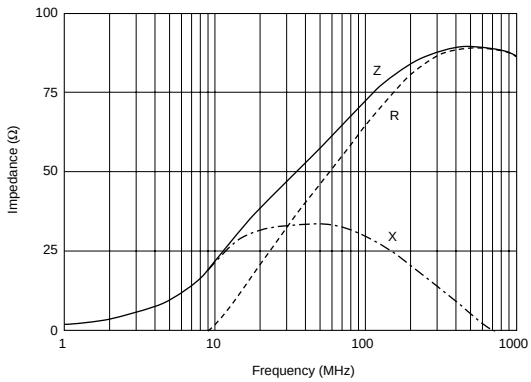


■ Impedance-Frequency Characteristics

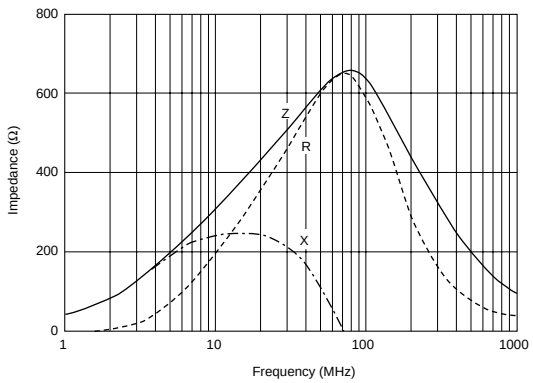
BLM31AJ260SN1



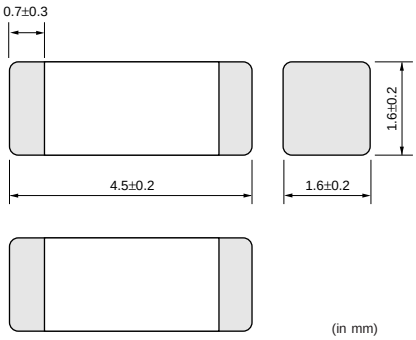
BLM31AF700SN1



BLM31AJ601SN1



BLM41A Series (1806 Size)



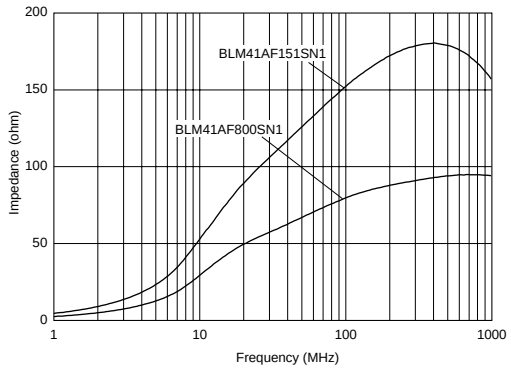
BLM41A Series

(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM41AF800SN1	80 ±25%	500	0.10	-55 to +125
BLM41AF151SN1	150 ±25%	200	0.50	-55 to +125

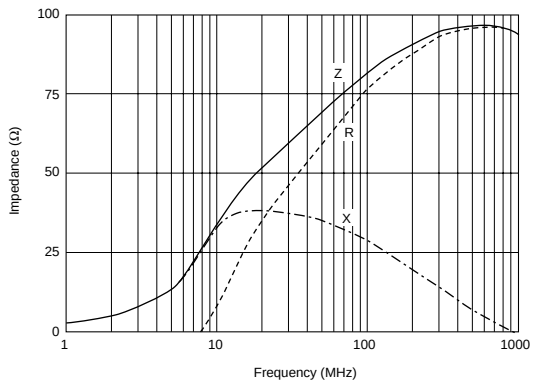
■ Impedance-Frequency (Typical)

BLM41A Series

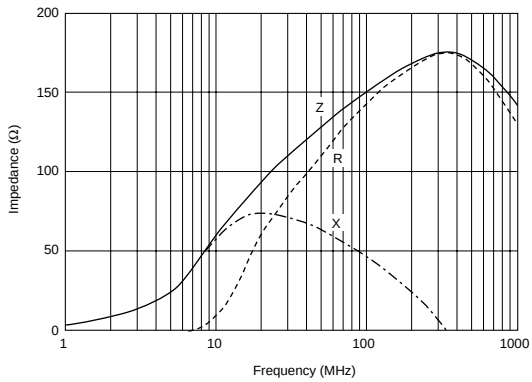


■ Impedance-Frequency Characteristics

BLM41AF800SN1



BLM41AF151SN1



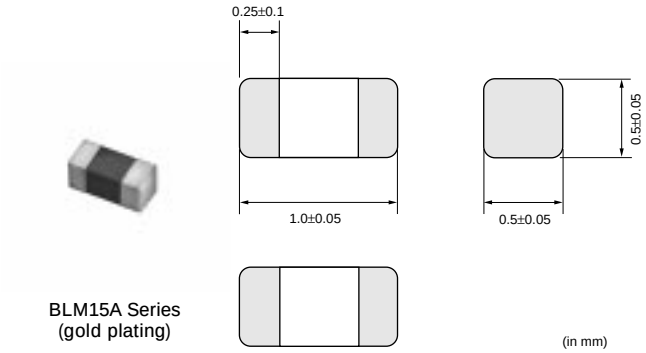
BLM15A Series Gold Plating (0402 Size)

■ Features

1. Au plating for wire bonding mounting
2. BLM_A series generates an impedance from the relatively low frequencies. Therefore BLM_A series is effective in noise suppression in a wide frequency range (30MHz-several hundred MHz).

■ Applications

1. Optical transceiver modules
2. Optical pickup modules



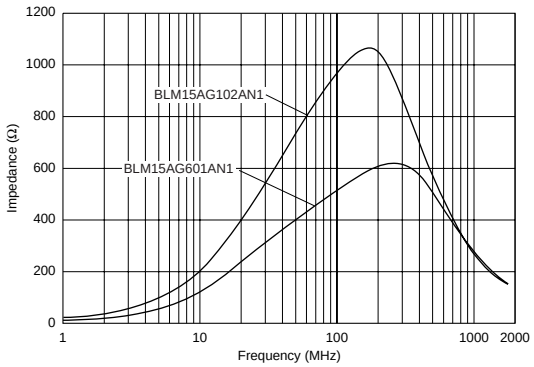
BLM15A Series
(gold plating)

(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM15AG601AN1	600 ±25%	300	0.6	-55 to +125
BLM15AG102AN1	1000 ±25%	200	1.0	-55 to +125

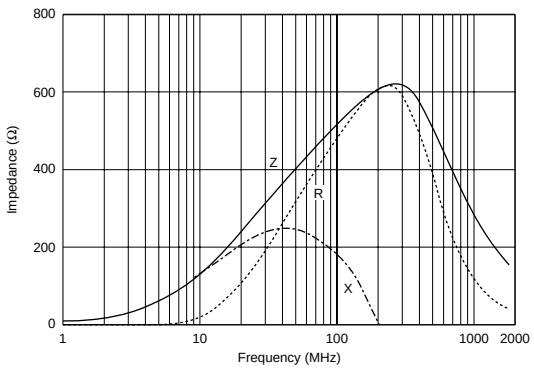
■ Impedance-Frequency (Typical)

BLM15A Series (gold plating)

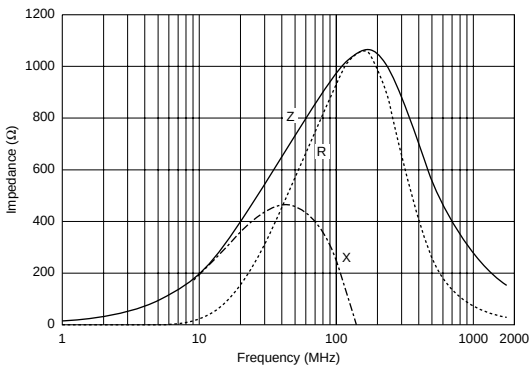


■ Impedance-Frequency Characteristics

BLM15AG601AN1



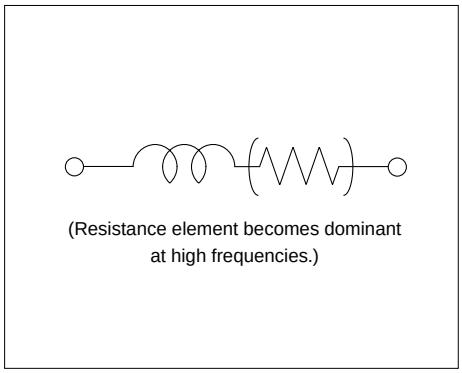
BLM15AG102AN1



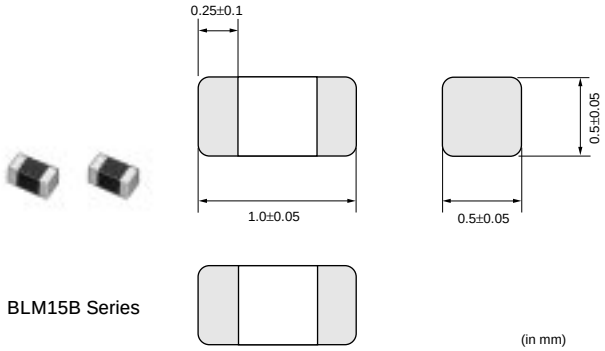
■ Features (BLM_B Series)

The chip ferrite beads BLM series comprises ferrite bead in the shape of a chip. This ferrite bead generates a high impedance which at high frequencies mainly consists of a resistance element. The BLM series is effective in circuits without stable ground lines because the BLM series does not need a connection to ground.
The nickel barrier structure of the external electrodes provides excellent solder heat resistance. The BLM_B series can minimize attenuation of the signal waveform due to its sharp impedance characteristics. Various impedances are available to match signal frequency.

■ Equivalent Circuit



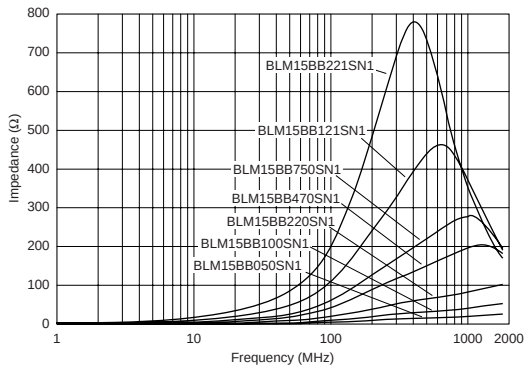
BLM15B Series (0402 Size)



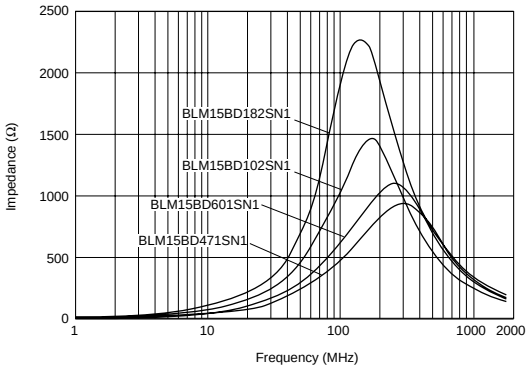
Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM15BB050SN1	5 ±25%	500	0.08	-55 to +125
BLM15BB100SN1	10 ±25%	300	0.10	-55 to +125
BLM15BB220SN1	22 ±25%	300	0.20	-55 to +125
BLM15BB470SN1	47 ±25%	300	0.35	-55 to +125
BLM15BB750SN1	75 ±25%	300	0.40	-55 to +125
BLM15BB121SN1	120 ±25%	300	0.55	-55 to +125
BLM15BB221SN1	220 ±25%	200	0.80	-55 to +125
BLM15BD471SN1	470 ±25%	200	0.60	-55 to +125
BLM15BD601SN1	600 ±25%	200	0.65	-55 to +125
BLM15BD102SN1	1000 ±25%	200	0.90	-55 to +125
BLM15BD182SN1	1800 ±25%	100	1.40	-55 to +125

■ Impedance-Frequency (Typical)

BLM15BB Series



BLM15BD Series



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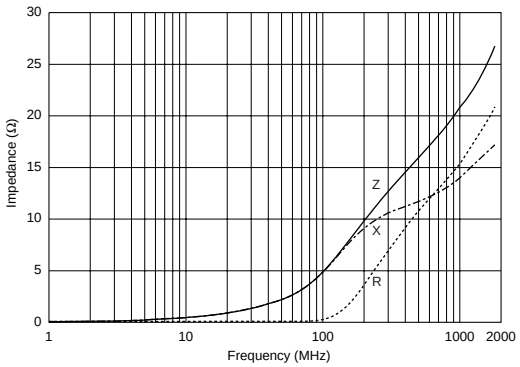
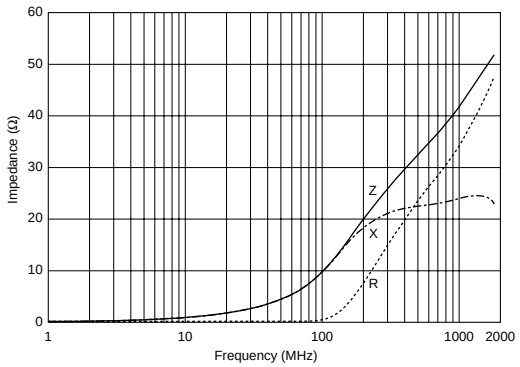
■ Impedance-Frequency Characteristics

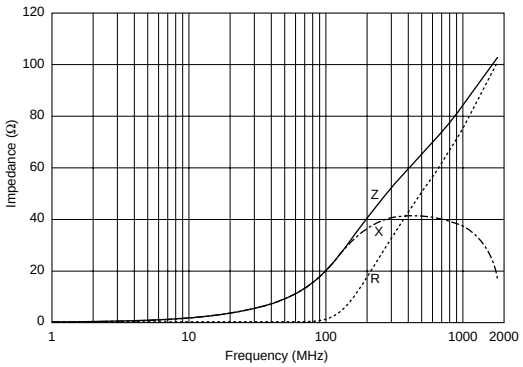
BLM15BB050SN1



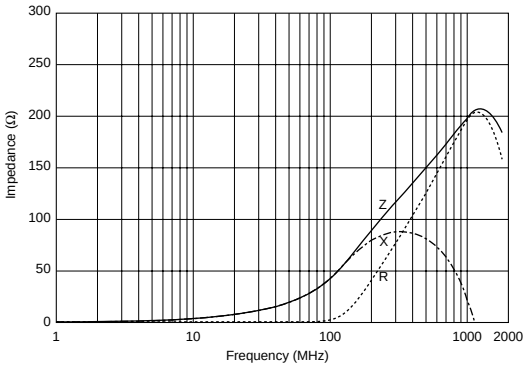
BLM15BB100SN1



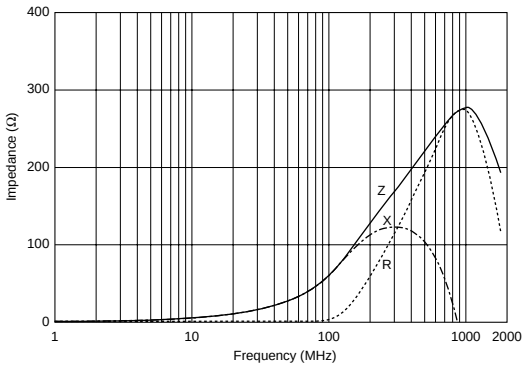
BLM15BB220SN1



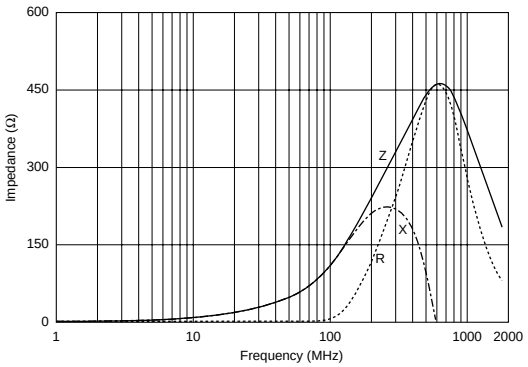
BLM15BB470SN1



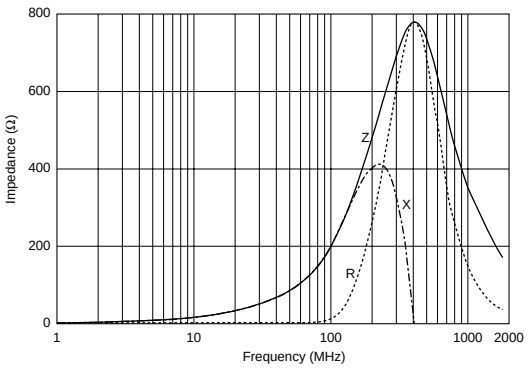
BLM15BB750SN1



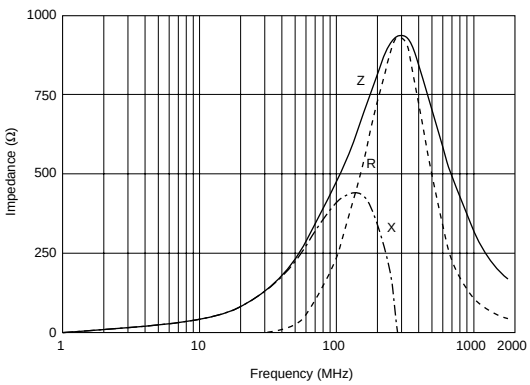
BLM15BB121SN1



BLM15BB221SN1



BLM15BD471SN1



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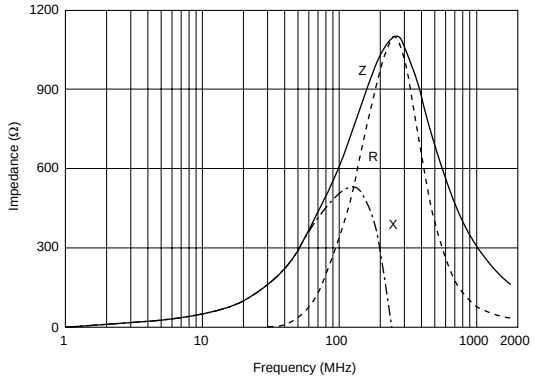
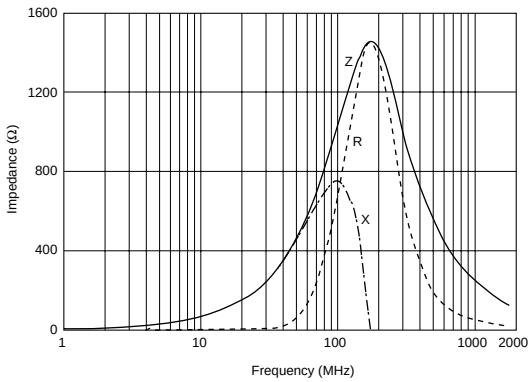
■ Impedance-Frequency Characteristics

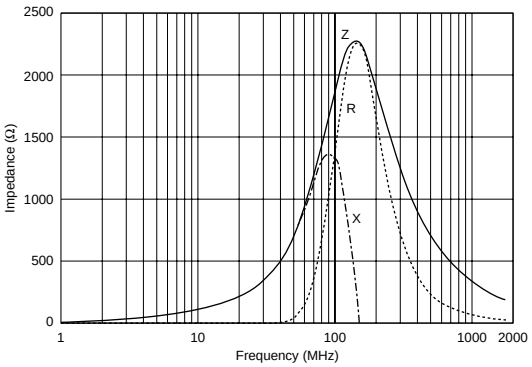
BLM15BD601SN1



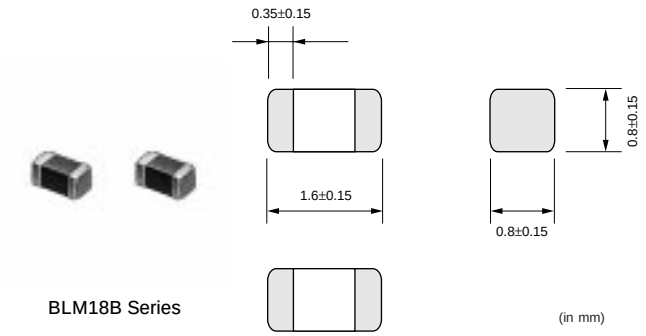
BLM15BD102SN1



BLM15BD182SN1



BLM18B Series (0603 Size)



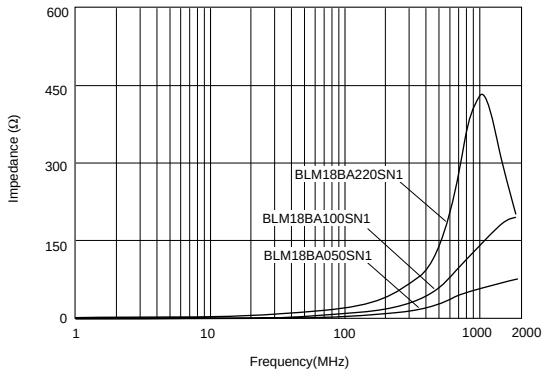
BLM18B Series

(in mm)

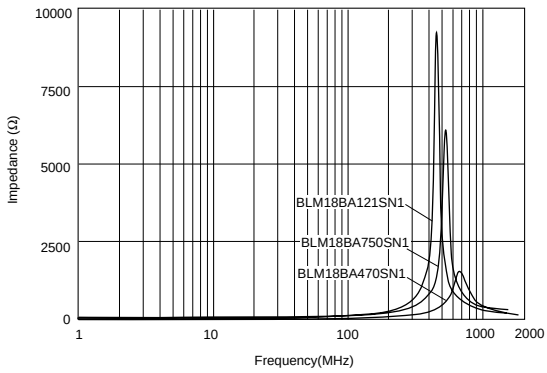
Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18BA050SN1	5 ±25%	500	0.20	-55 to +125
BLM18BB050SN1	5 ±25%	700	0.10	-55 to +125
BLM18BA100SN1	10 ±25%	500	0.25	-55 to +125
BLM18BB100SN1	10 ±25%	500	0.15	-55 to +125
BLM18BA220SN1	22 ±25%	500	0.35	-55 to +125
BLM18BB220SN1	22 ±25%	500	0.25	-55 to +125
BLM18BA470SN1	47 ±25%	300	0.55	-55 to +125
BLM18BB470SN1	47 ±25%	500	0.30	-55 to +125
BLM18BB600SN1	60 ±25%	200	0.35	-55 to +125
BLM18BA750SN1	75 ±25%	300	0.70	-55 to +125
BLM18BB750SN1	75 ±25%	200	0.35	-55 to +125
BLM18BA121SN1	120 ±25%	200	0.90	-55 to +125
BLM18BB121SN1	120 ±25%	200	0.50	-55 to +125
BLM18BD121SN1	120 ±25%	200	0.40	-55 to +125
BLM18BB141SN1	140 ±25%	200	0.55	-55 to +125
BLM18BB151SN1	150 ±25%	200	0.55	-55 to +125
BLM18BD151SN1	150 ±25%	200	0.40	-55 to +125
BLM18BB221SN1	220 ±25%	200	0.65	-55 to +125
BLM18BD221SN1	220 ±25%	200	0.45	-55 to +125
BLM18BB331SN1	330 ±25%	200	0.75	-55 to +125
BLM18BD331SN1	330 ±25%	200	0.50	-55 to +125
BLM18BD421SN1	420 ±25%	200	0.55	-55 to +125
BLM18BB471SN1	470 ±25%	50	1.00	-55 to +125
BLM18BD471SN1	470 ±25%	200	0.55	-55 to +125
BLM18BD601SN1	600 ±25%	200	0.65	-55 to +125
BLM18BD102SN1	1000 ±25%	100	0.85	-55 to +125
BLM18BD152SN1	1500 ±25%	50	1.20	-55 to +125
BLM18BD182SN1	1800 ±25%	50	1.50	-55 to +125
BLM18BD222SN1	2200 ±25%	50	1.50	-55 to +125
BLM18BD252SN1	2500 ±25%	50	1.50	-55 to +125

■ Impedance-Frequency (Typical)

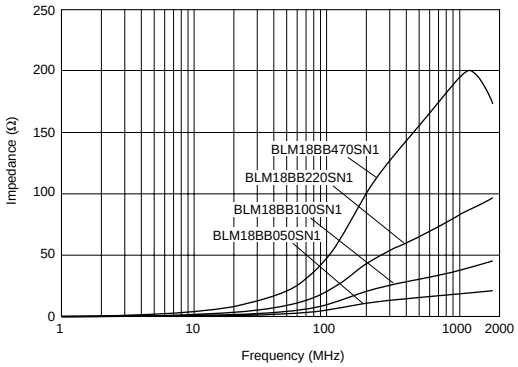
BLM18BA Series



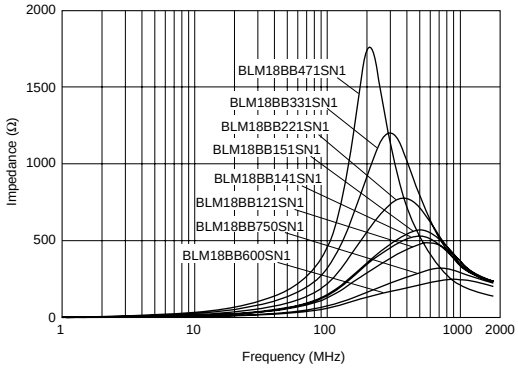
BLM18BA Series



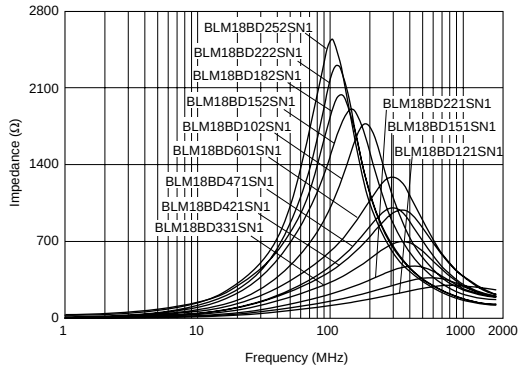
BLM18BB Series



BLM18BB Series

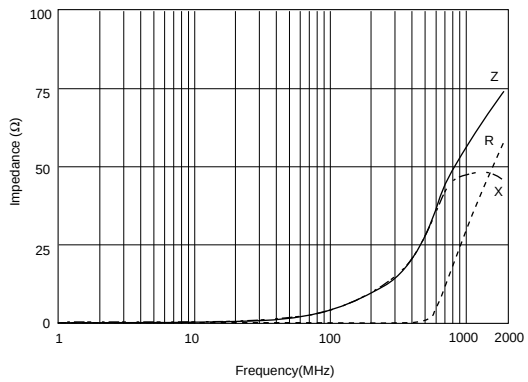


BLM18BD Series



■ Impedance-Frequency Characteristics

BLM18BA050SN1



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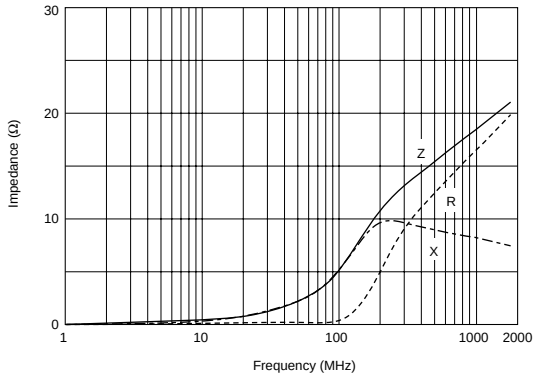

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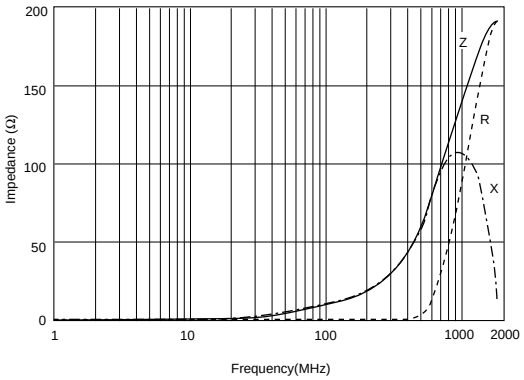
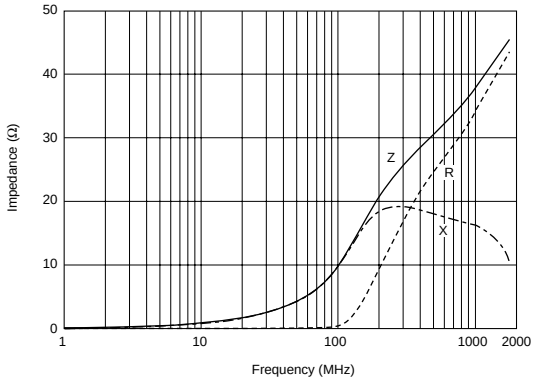
■ Impedance-Frequency Characteristics

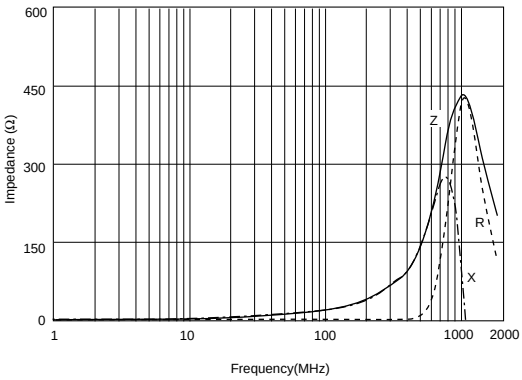
BLM18BA100SN1



BLM18BB100SN1



BLM18BA220SN1



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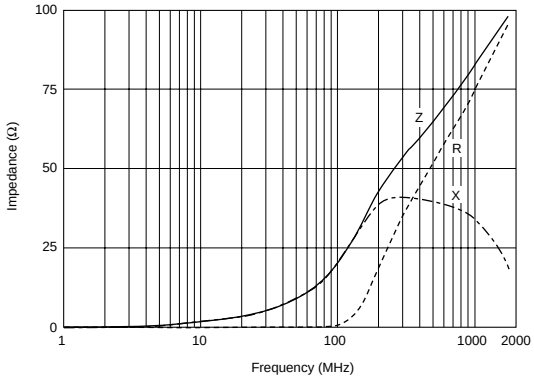

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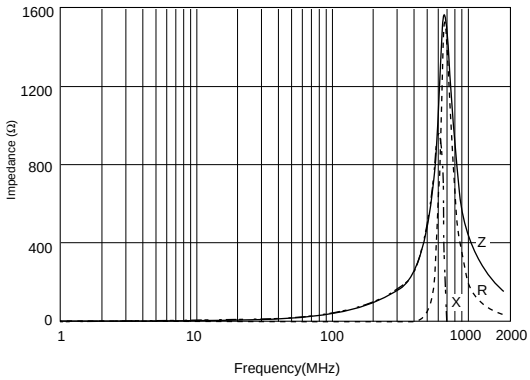

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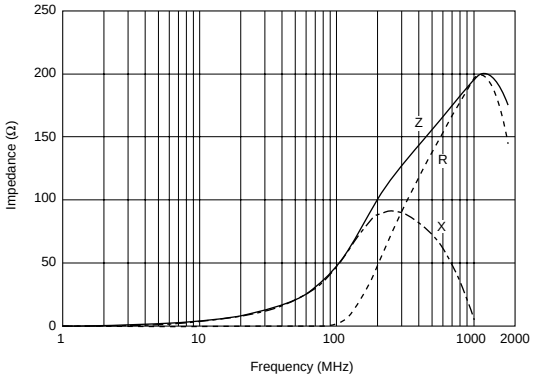

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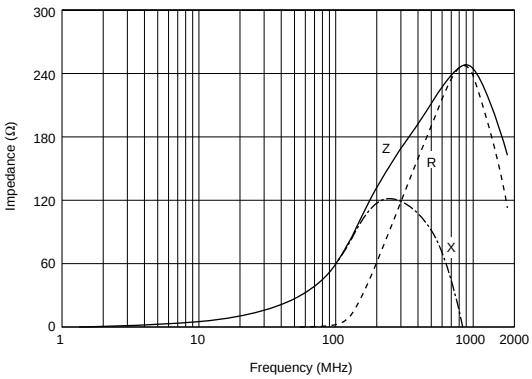

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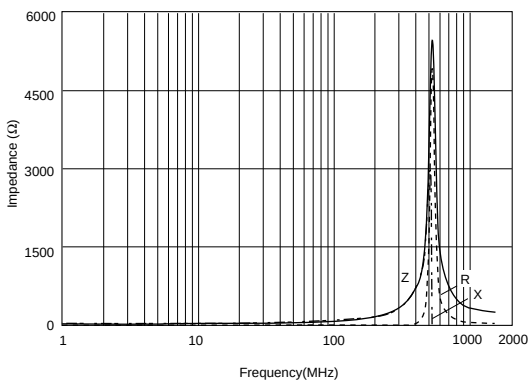

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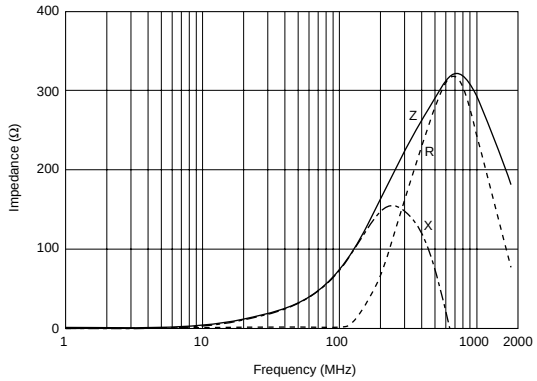
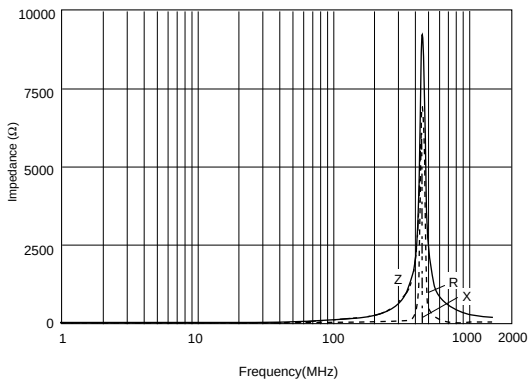
■ Impedance-Frequency Characteristics

BLM18BB750SN1



BLM18BA121SN1



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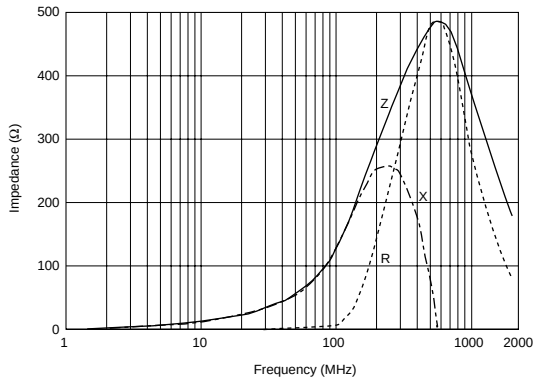
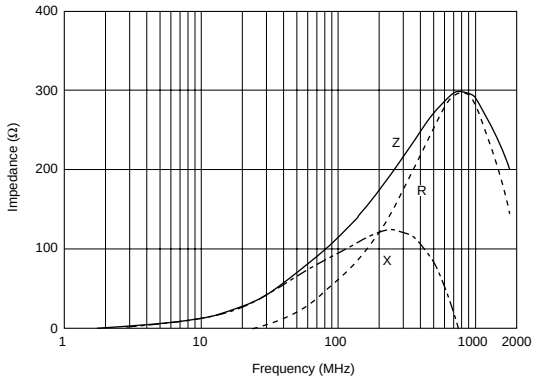
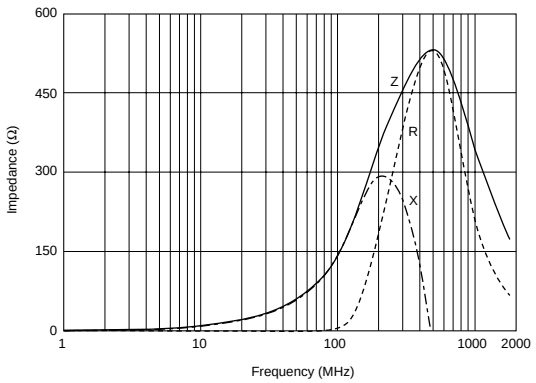


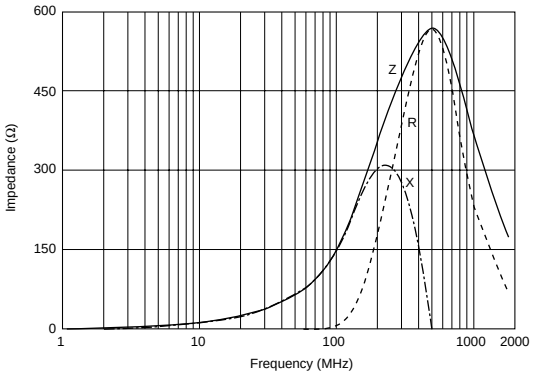
BLM18BD121SN1



BLM18BB141SN1



BLM18BB151SN1



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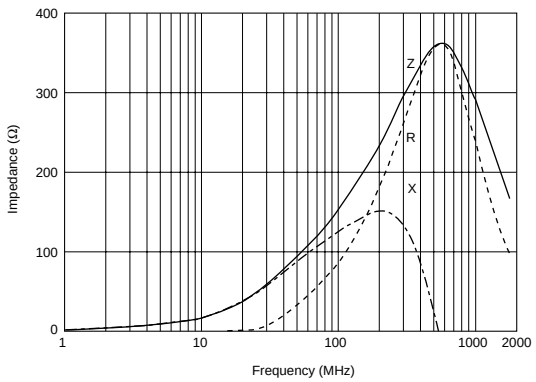

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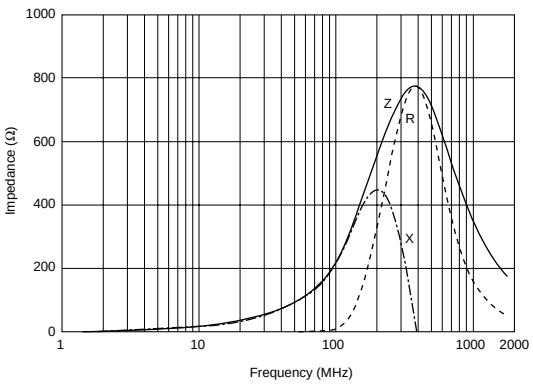

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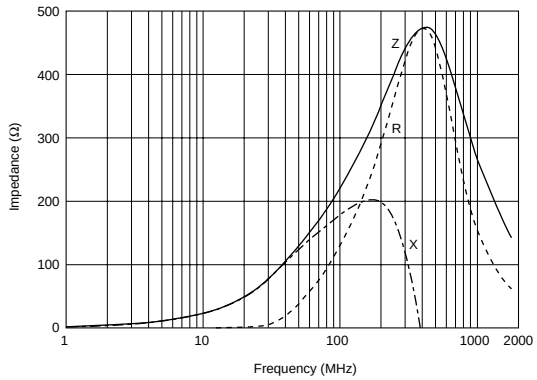
■ Impedance-Frequency Characteristics

BLM18BD221SN1



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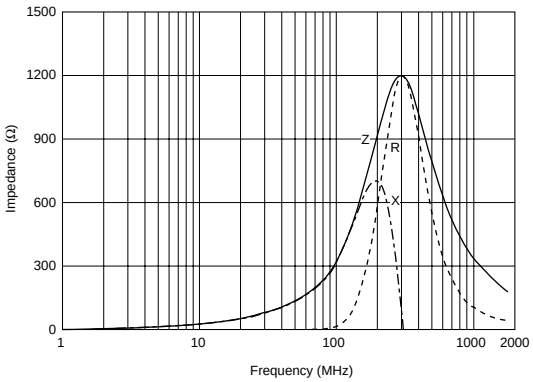

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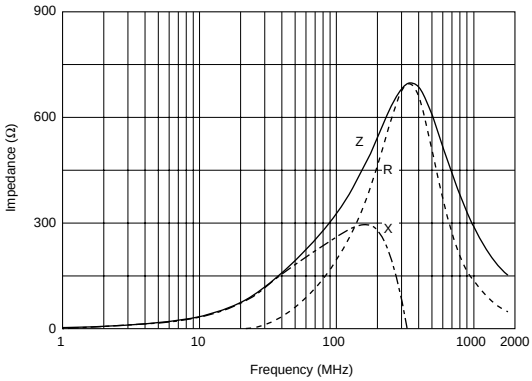
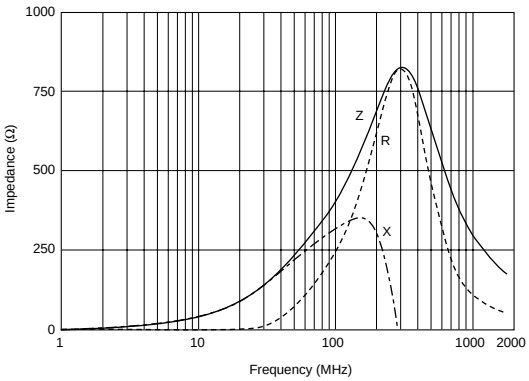
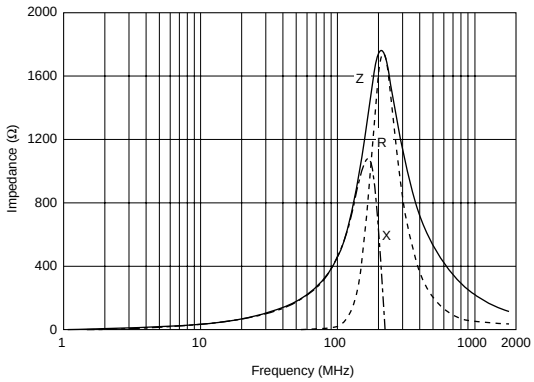


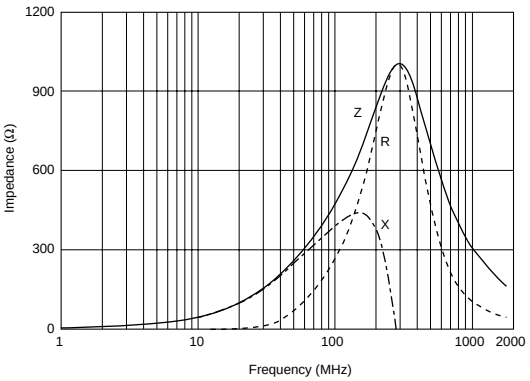
BLM18BD421SN1



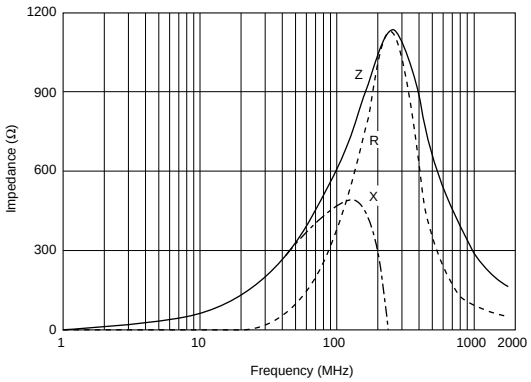
BLM18BB471SN1



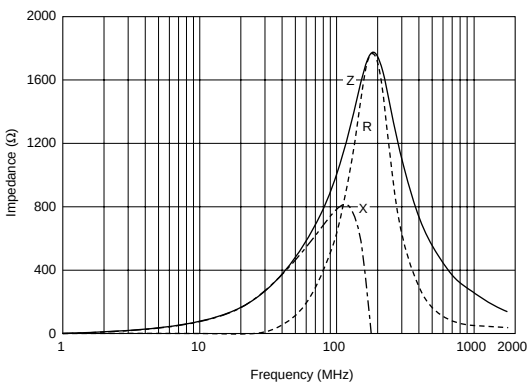
BLM18BD471SN1



BLM18BD601SN1



BLM18BD102SN1



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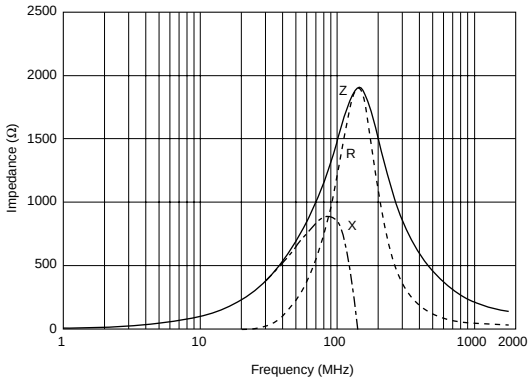
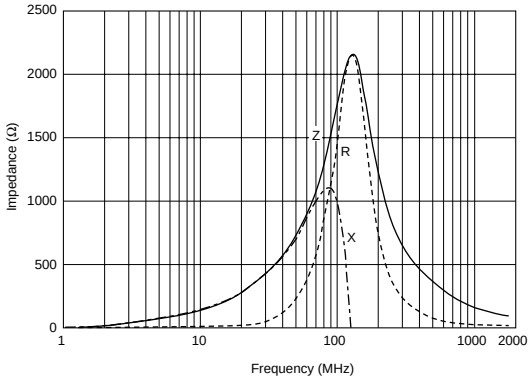
■ Impedance-Frequency Characteristics

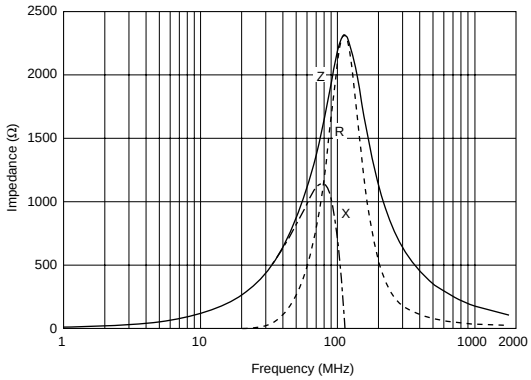
BLM18BD152SN1



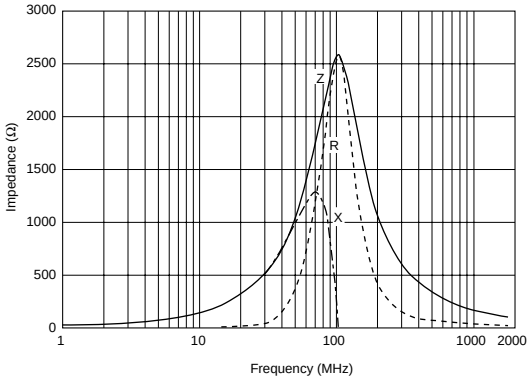
BLM18BD182SN1



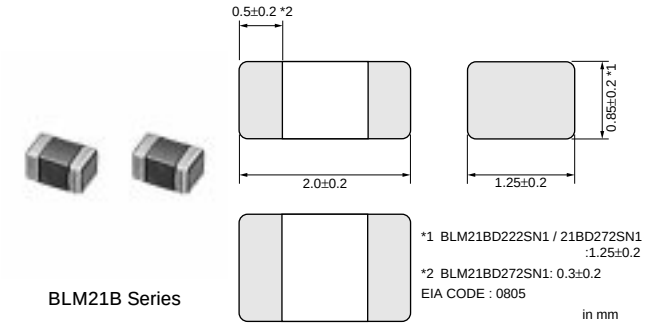
BLM18BD222SN1



BLM18BD252SN1



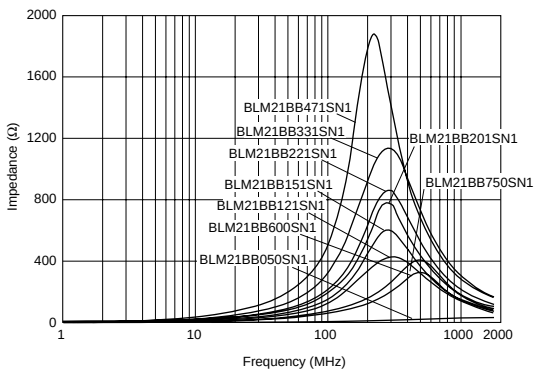
BLM21B Series (0805 Size)



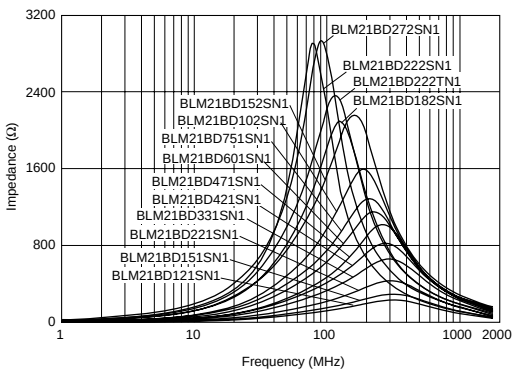
Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM21BB050SN1	5 ±25%	500	0.07	-55 to +125
BLM21BB600SN1	60 ±25%	200	0.20	-55 to +125
BLM21BB750SN1	75 ±25%	200	0.25	-55 to +125
BLM21BB121SN1	120 ±25%	200	0.25	-55 to +125
BLM21BD121SN1	120 ±25%	200	0.25	-55 to +125
BLM21BB151SN1	150 ±25%	200	0.25	-55 to +125
BLM21BD151SN1	150 ±25%	200	0.25	-55 to +125
BLM21BB201SN1	200 ±25%	200	0.35	-55 to +125
BLM21BB221SN1	220 ±25%	200	0.35	-55 to +125
BLM21BD221SN1	220 ±25%	200	0.25	-55 to +125
BLM21BB331SN1	330 ±25%	200	0.40	-55 to +125
BLM21BD331SN1	330 ±25%	200	0.30	-55 to +125
BLM21BD421SN1	420 ±25%	200	0.30	-55 to +125
BLM21BB471SN1	470 ±25%	200	0.45	-55 to +125
BLM21BD471SN1	470 ±25%	200	0.35	-55 to +125
BLM21BD601SN1	600 ±25%	200	0.35	-55 to +125
BLM21BD751SN1	750 ±25%	200	0.40	-55 to +125
BLM21BD102SN1	1000 ±25%	200	0.40	-55 to +125
BLM21BD152SN1	1500 ±25%	200	0.45	-55 to +125
BLM21BD182SN1	1800 ±25%	200	0.50	-55 to +125
BLM21BD222TN1	2200 ±25%	200	0.60	-55 to +125
BLM21BD222SN1	2250 (Typ.)	200	0.60	-55 to +125
BLM21BD272SN1	2700 ±25%	200	0.80	-55 to +125

■ Impedance-Frequency (Typical)

BLM21BB Series



BLM21BD Series



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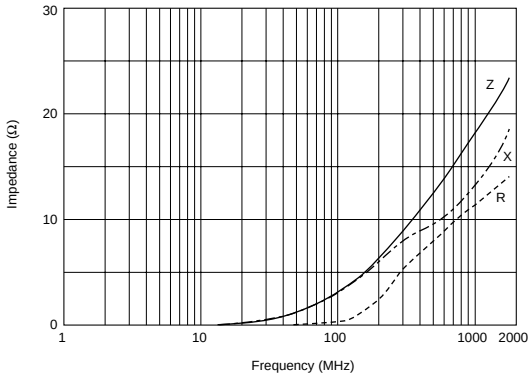
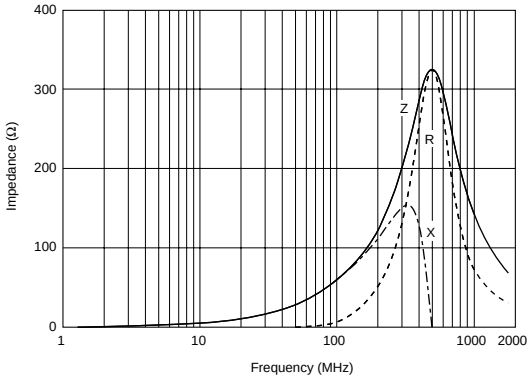
■ Impedance-Frequency Characteristics

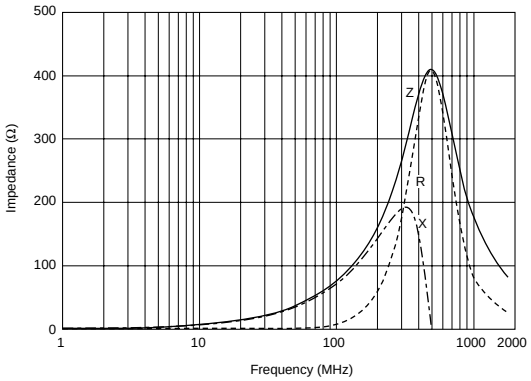
BLM21BB050SN1



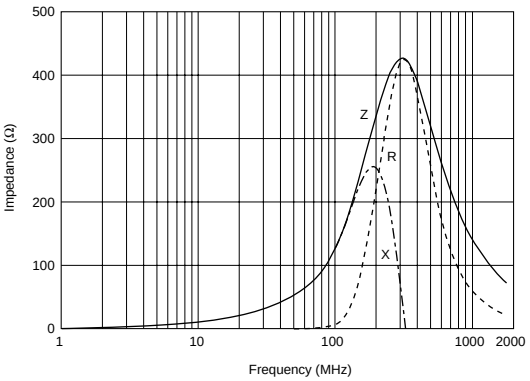
BLM21BB600SN1



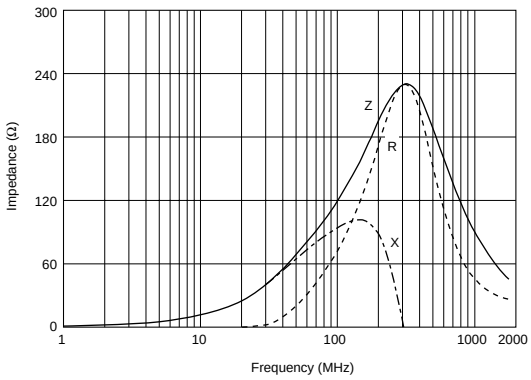
BLM21BB750SN1



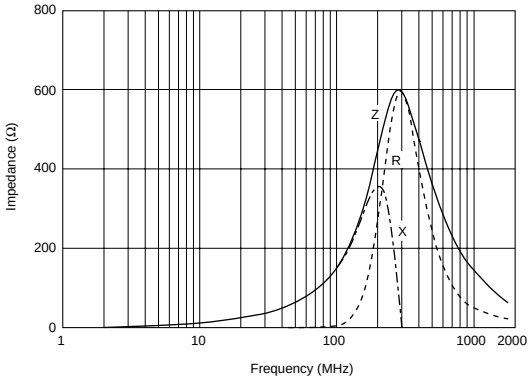
BLM21BB121SN1



BLM21BD121SN1



BLM21BB151SN1



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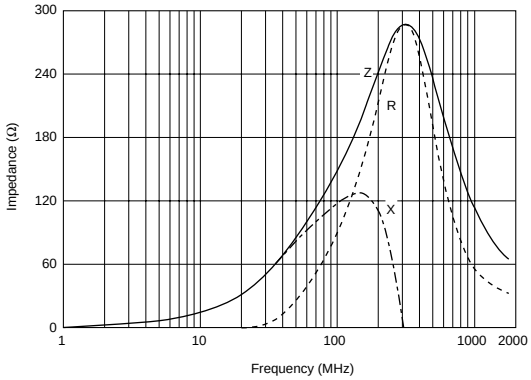
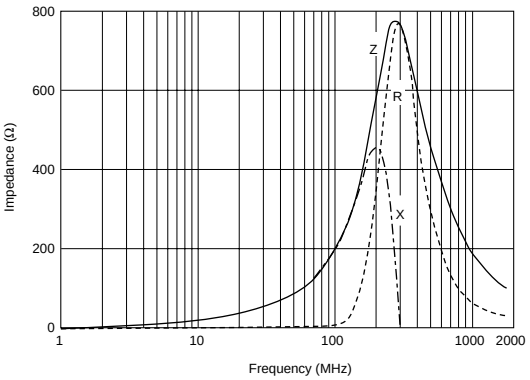


BLM21BB201SN1



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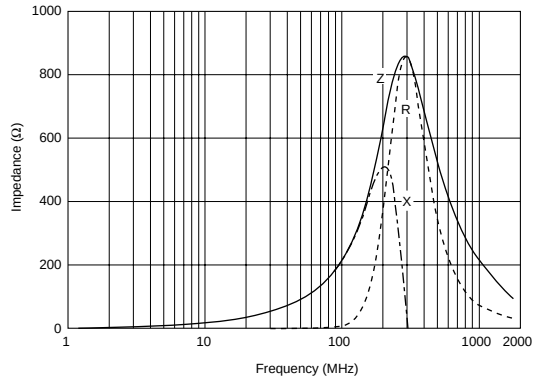
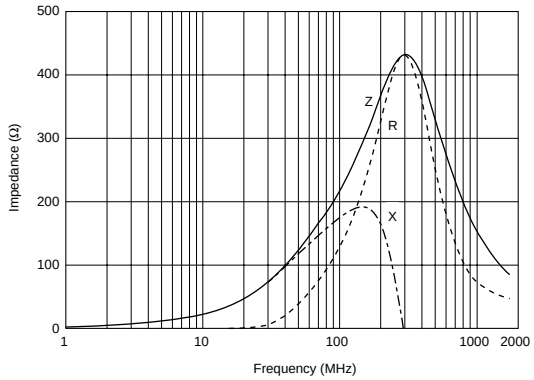
■ Impedance-Frequency Characteristics

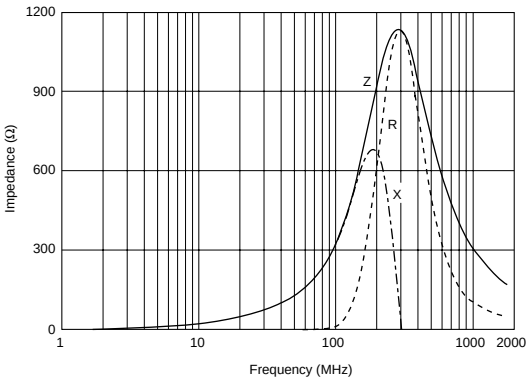
BLM21BB221SN1



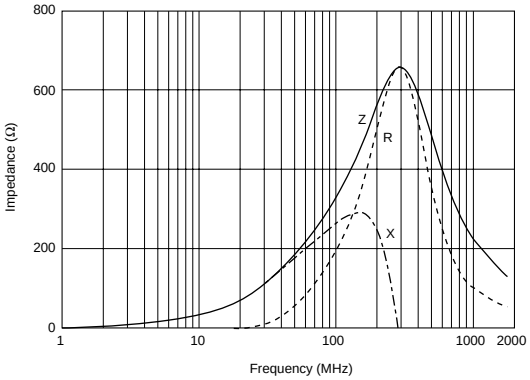
BLM21BD221SN1



BLM21BB331SN1



BLM21BD331SN1



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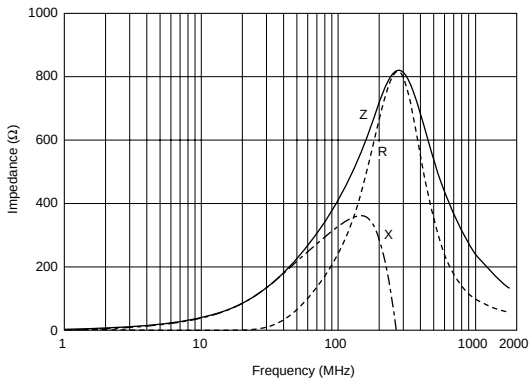
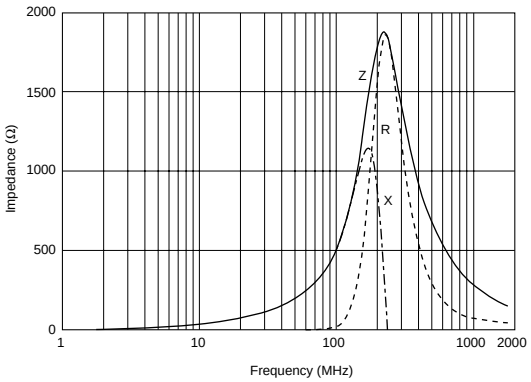


BLM21BB471SN1



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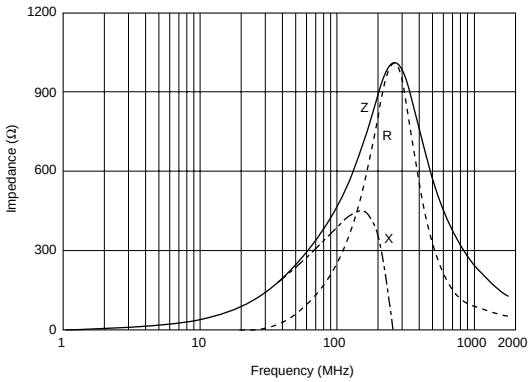
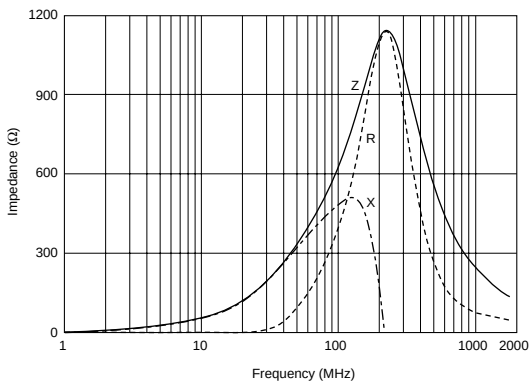


BLM21BD601SN1



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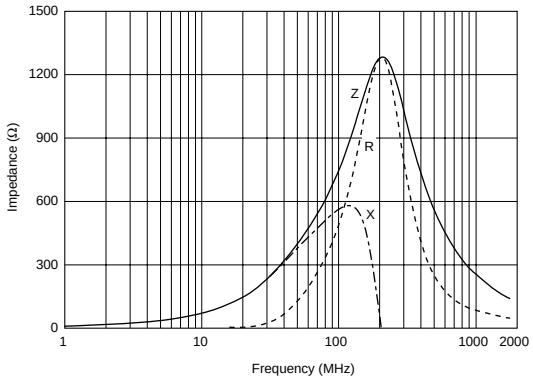
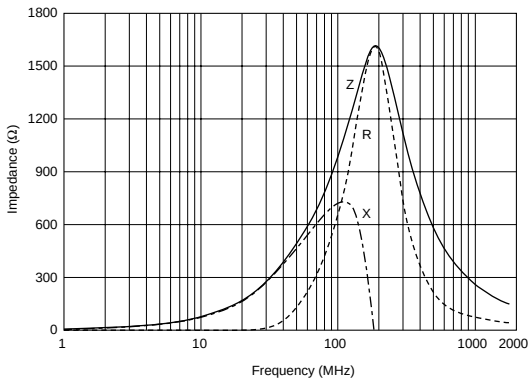
■ Impedance-Frequency Characteristics

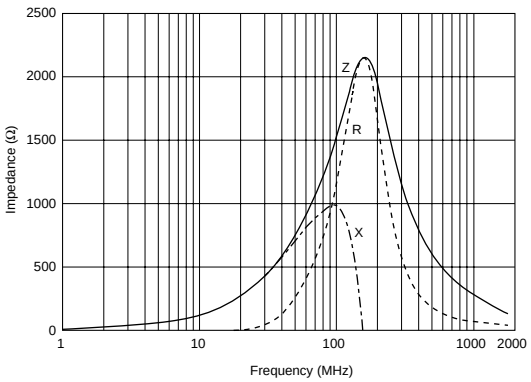
BLM21BD751SN1



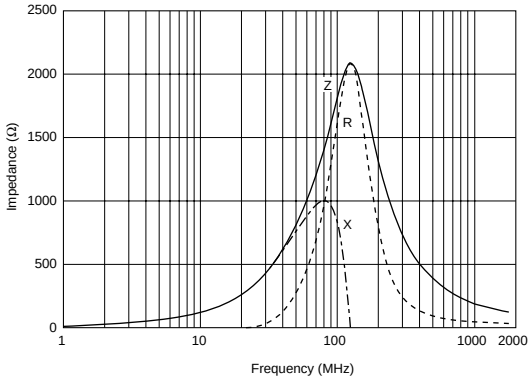
BLM21BD102SN1



BLM21BD152SN1



BLM21BD182SN1



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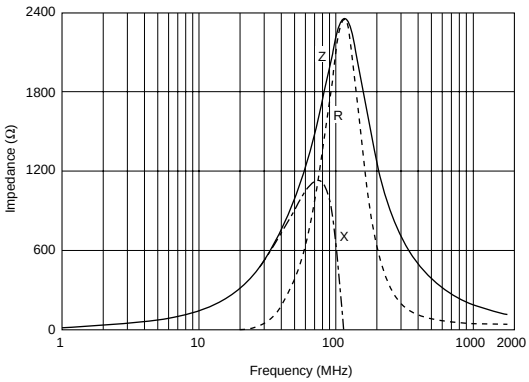
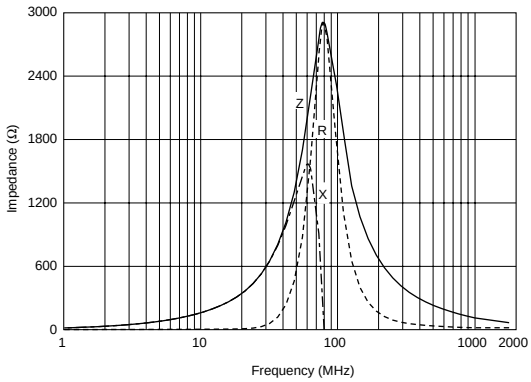
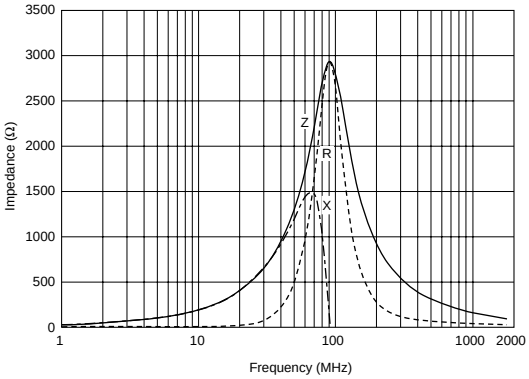


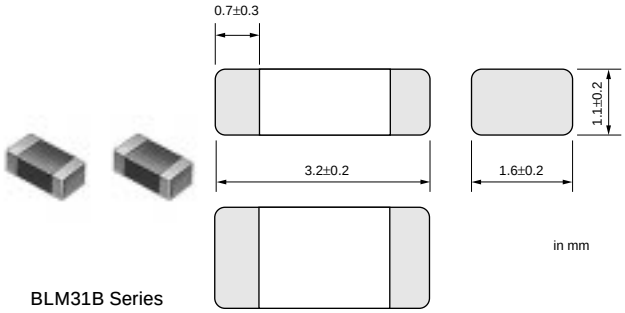
BLM21BD222SN1



BLM21BD272SN1



BLM31B Series (1206 Size)

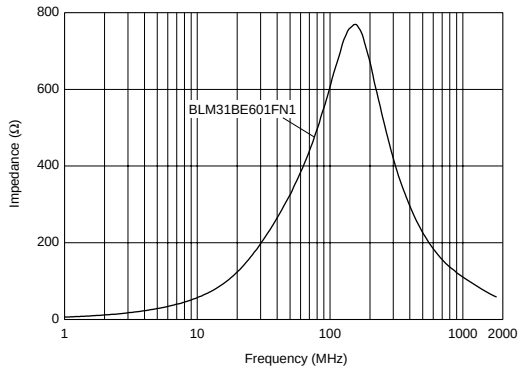


BLM31B Series

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM31BE601FN1	600 ±25%	300	0.35	-55 to +125

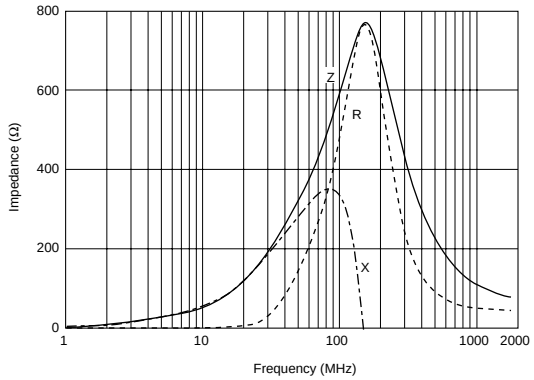
■ Impedance-Frequency (Typical)

BLM31B Series



■ Impedance-Frequency Characteristics

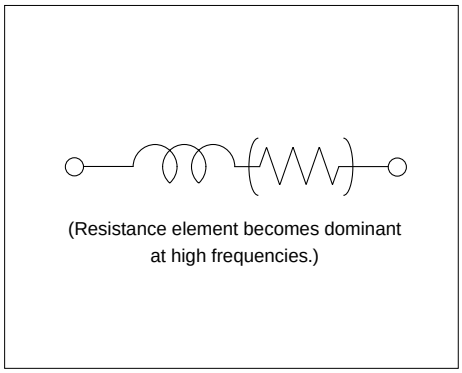
BLM31BE601FN1



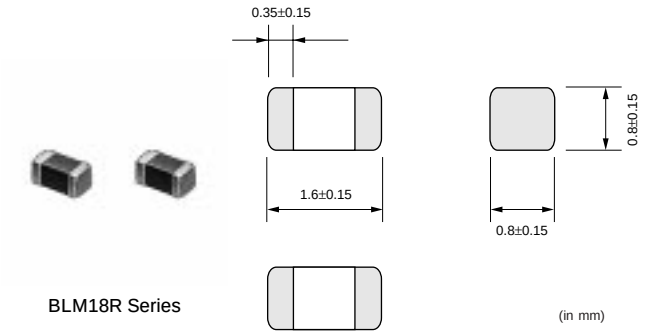
■ Features (BLM_R Series)

The chip ferrite beads BLM series comprises ferrite bead in the shape of a chip. This ferrite bead generates a high impedance which at high frequencies mainly consists of a resistance element. The BLM series is effective in circuits without stable ground lines because the BLM series does not need a connection to ground.
The nickel barrier structure of the external electrodes provides excellent solder heat resistance.
The BLM_R series can be used in a digital Interface.
Resistance of BLM_R series especially grows in the lower frequency range. Therefore BLM_R series is less effective for digital signal waveform at low frequency range and can suppress the ringing.

■ Equivalent Circuit



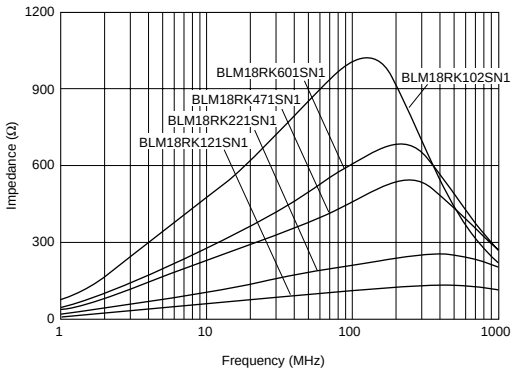
BLM18R Series (0603 Size)



Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18RK121SN1	120 ±25%	200	0.25	-55 to +125
BLM18RK221SN1	220 ±25%	200	0.30	-55 to +125
BLM18RK471SN1	470 ±25%	200	0.50	-55 to +125
BLM18RK601SN1	600 ±25%	200	0.60	-55 to +125
BLM18RK102SN1	1000 ±25%	200	0.80	-55 to +125

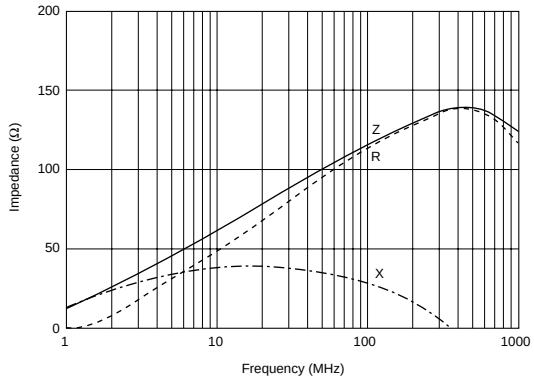
■ Impedance-Frequency (Typical)

BLM18R Series

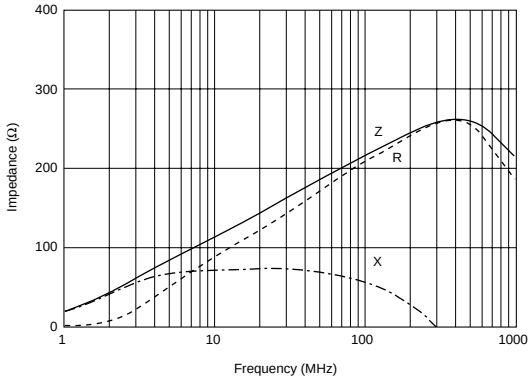


■ Impedance-Frequency Characteristics

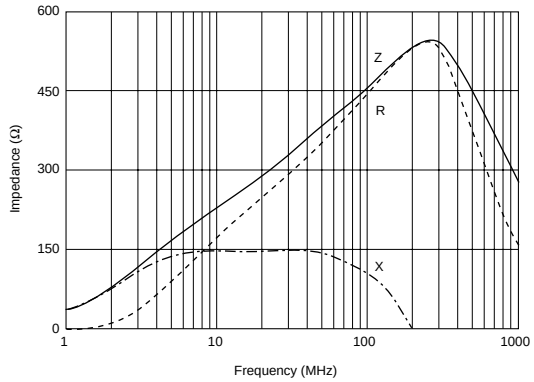
BLM18RK121SN1



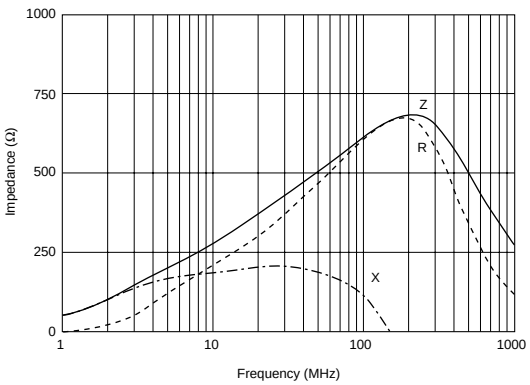
BLM18RK221SN1



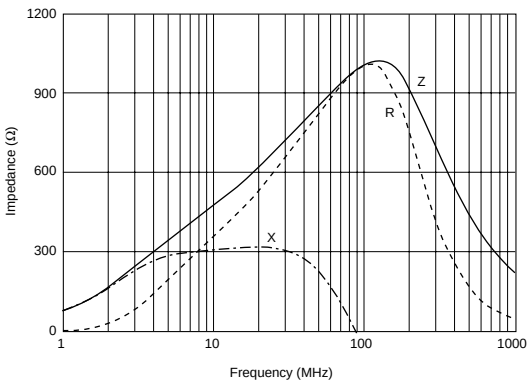
BLM18RK471SN1



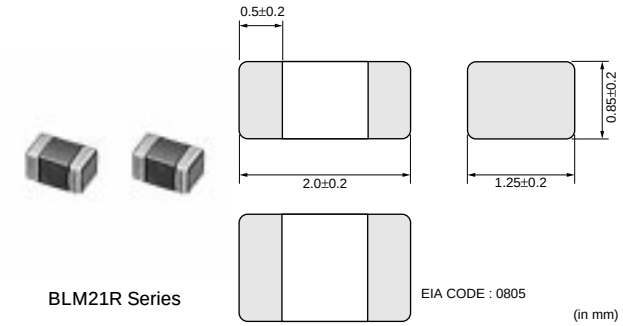
BLM18RK601SN1



BLM18RK102SN1



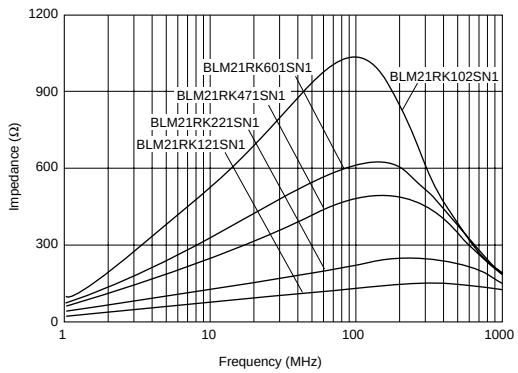
BLM21R Series (0805 Size)



Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM21RK121SN1	120 ±25%	200	0.15	-55 to +125
BLM21RK221SN1	220 ±25%	200	0.20	-55 to +125
BLM21RK471SN1	470 ±25%	200	0.25	-55 to +125
BLM21RK601SN1	600 ±25%	200	0.30	-55 to +125
BLM21RK102SN1	1000 ±25%	200	0.50	-55 to +125

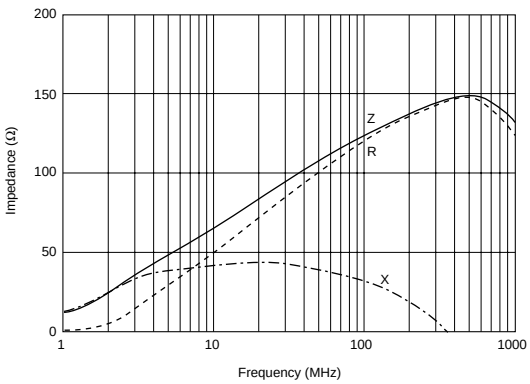
■ Impedance-Frequency (Typical)

BLM21R Series

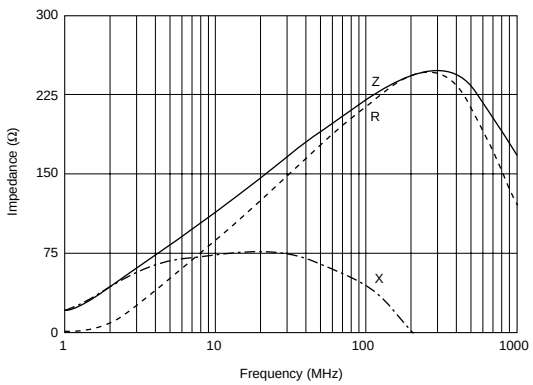


■ Impedance-Frequency Characteristics

BLM21RK121SN1



BLM21RK221SN1



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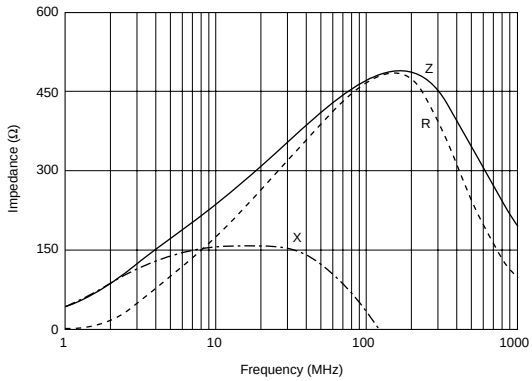
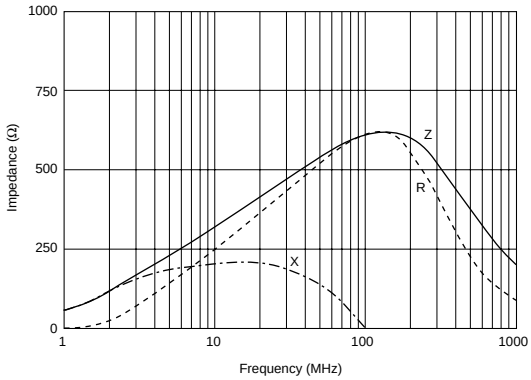
■ Impedance-Frequency Characteristics

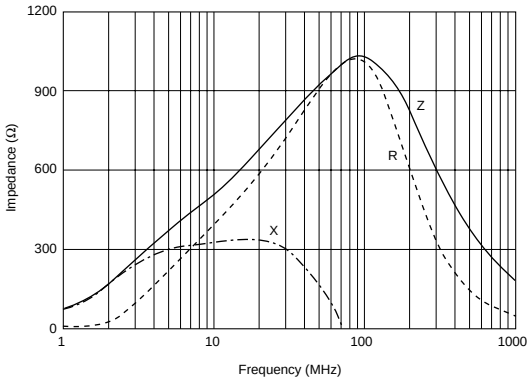
BLM21RK471SN1



BLM21RK601SN1



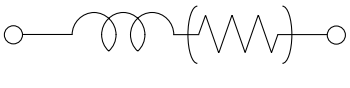
BLM21RK102SN1



■ Features (BLM_P Series)

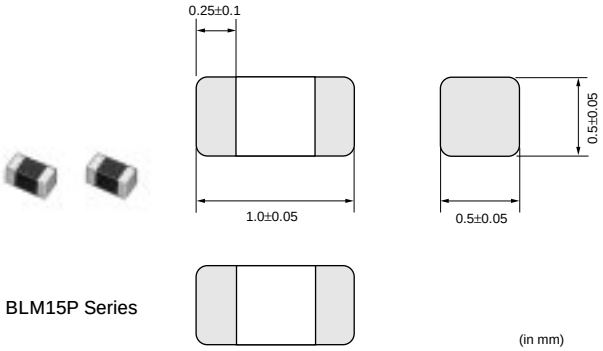
The chip ferrite beads BLM series comprises ferrite bead in the shape of a chip. This ferrite bead generates a high impedance which at high frequencies mainly consists of a resistance element. The BLM series is effective in circuits without stable ground lines because the BLM series does not need a connection to ground.
The nickel barrier structure of the external electrodes provides excellent solder heat resistance. The BLM_P series can be used in high current circuits due to its low DC resistance. It can match power lines to a maximum of 6A DC.

■ Equivalent Circuit



(Resistance element becomes dominant at high frequencies.)

BLM15P Series (0402 Size)



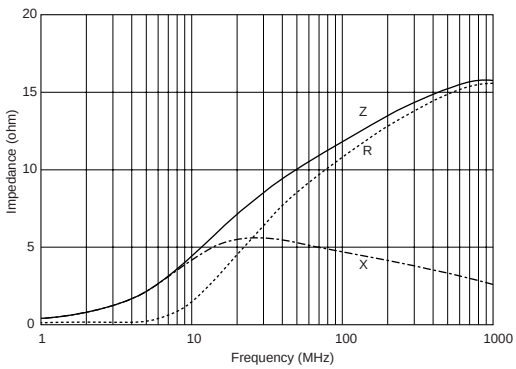
BLM15P Series

(in mm)

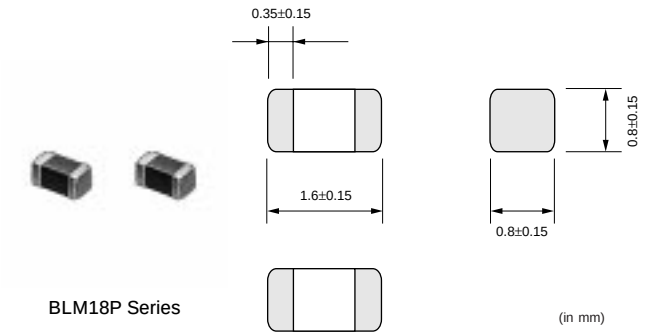
Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM15PG100SN1	10 (Typ.)	1000	0.05	-55 to +125

■ Impedance-Frequency Characteristics

BLM15PG100SN1



BLM18P Series (0603 Size)



BLM18P Series

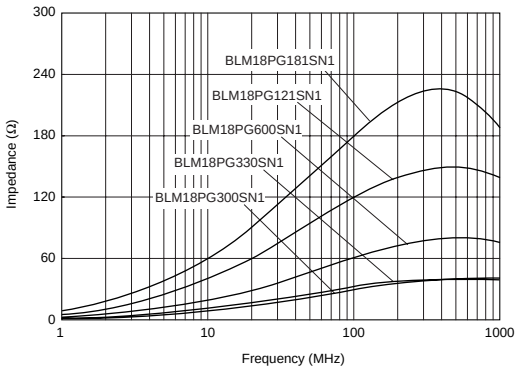
(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18PG300SN1	30 (Typ.)	1000	0.05	-55 to +125
BLM18PG330SN1	33 ±25%	3000	0.025	-55 to +125
BLM18PG600SN1	60 (Typ.)	500	0.10	-55 to +125
BLM18PG121SN1	120 ±25%	2000	0.05	-55 to +125
BLM18PG181SN1	180 ±25%	1500	0.09	-55 to +125

At rated current upper than 1500mA, derating is required.
Please refer P. 54, "Derating of Rated Current".

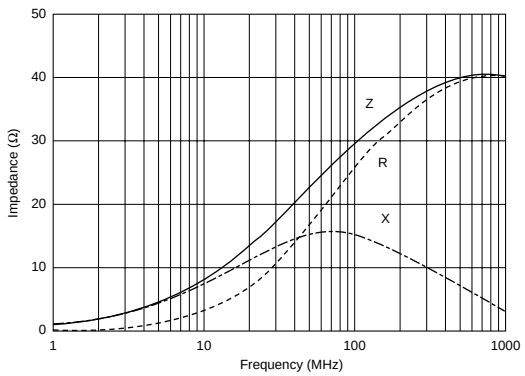
■ Impedance-Frequency (Typical)

BLM18P Series

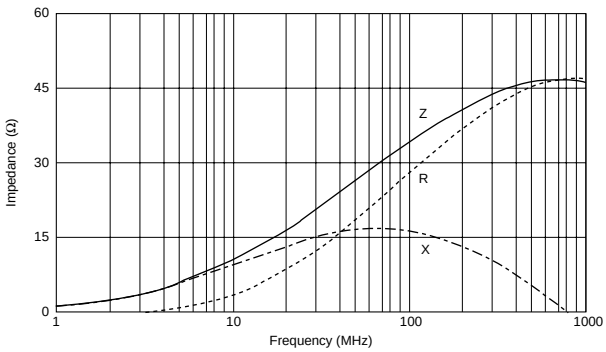


■ Impedance-Frequency Characteristics

BLM18PG300SN1



BLM18PG330SN1



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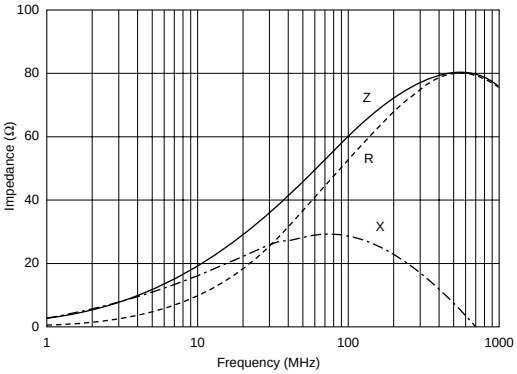
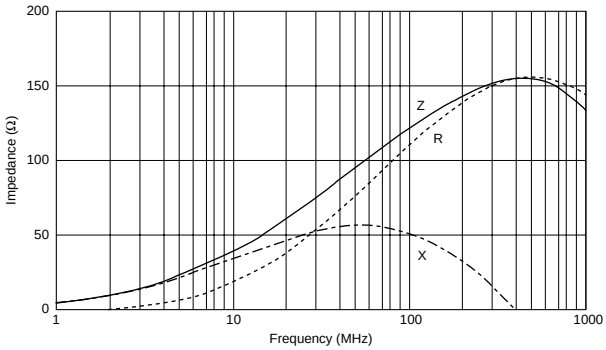
■ Impedance-Frequency Characteristics

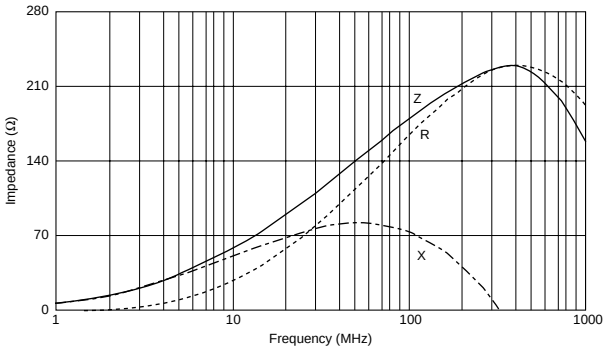
BLM18PG600SN1



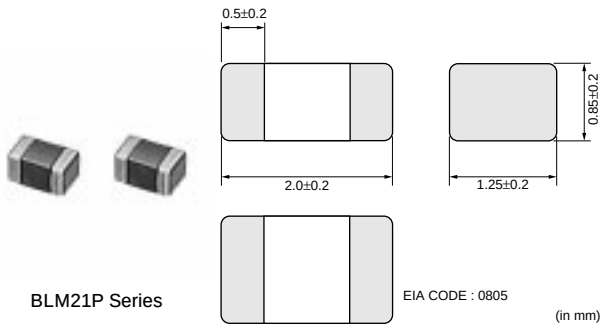
BLM18PG121SN1



BLM18PG181SN1



BLM21P Series (0805 Size)

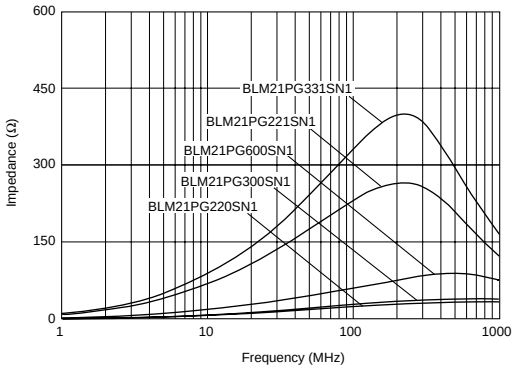


Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM21PG220SN1	22 ±25%	6000	0.01	-55 to +125
BLM21PG300SN1	30 (Typ.)	3000	0.015	-55 to +125
BLM21PG600SN1	60 ±25%	3000	0.025	-55 to +125
BLM21PG221SN1	220 ±25%	2000	0.050	-55 to +125
BLM21PG331SN1	330 ±25%	1500	0.09	-55 to +125

At rated current upper than 1500mA, derating is required.
Please refer P. 54, "Derating of Rated Current".

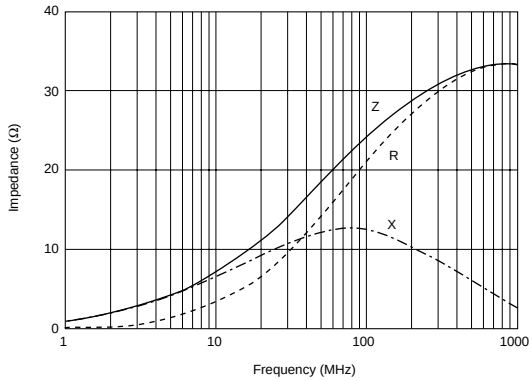
■ Impedance-Frequency (Typical)

BLM21P Series

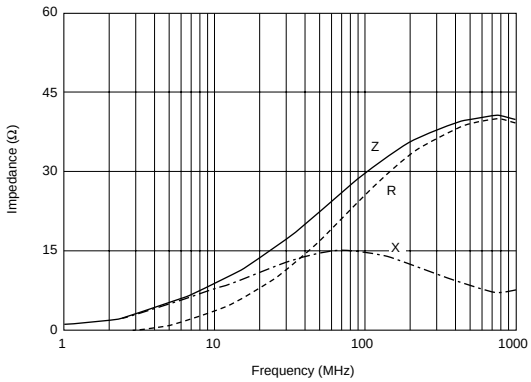


■ Impedance-Frequency Characteristics

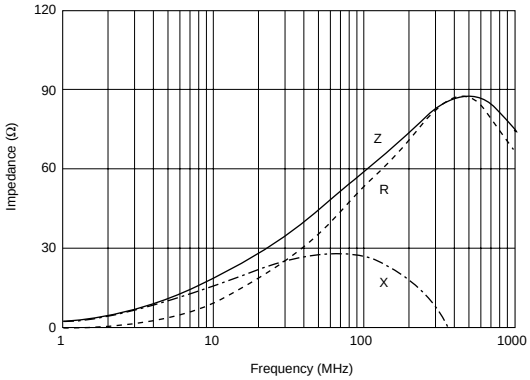
BLM21PG220SN1



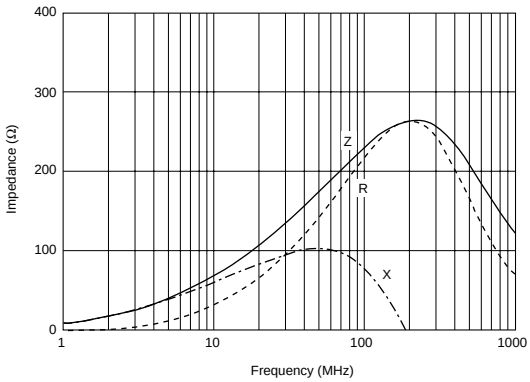
BLM21PG300SN1



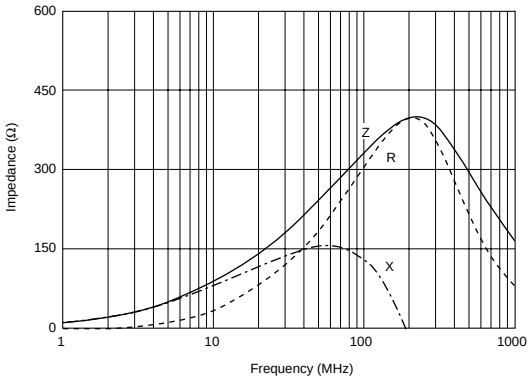
BLM21PG600SN1



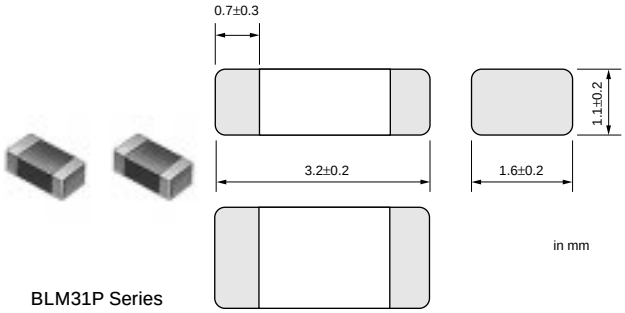
BLM21PG221SN1



BLM21PG331SN1



BLM31P Series (1206 Size)



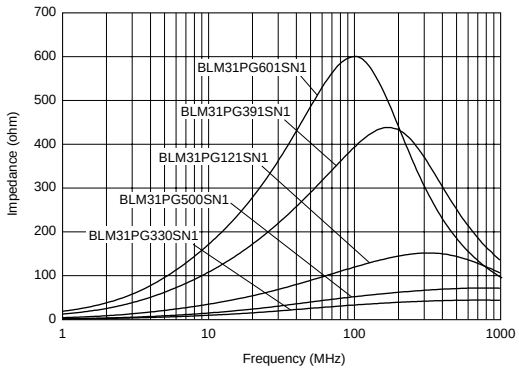
BLM31P Series

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM31PG330SN1	33 ±25%	6000	0.01	-55 to +125
BLM31PG500SN1	50 (Typ.)	3000	0.025	-55 to +125
BLM31PG121SN1	120 ±25%	3000	0.025	-55 to +125
BLM31PG391SN1	390 ±25%	2000	0.05	-55 to +125
BLM31PG601SN1	600 ±25%	1500	0.09	-55 to +125

At rated current upper than 1500mA, derating is required.
Please refer P. 54, "Derating of Rated Current".

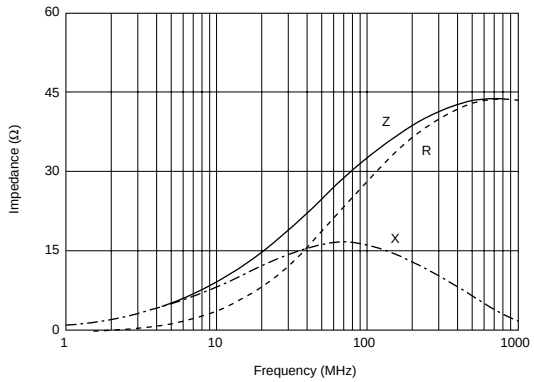
■ Impedance-Frequency (Typical)

BLM31P Series

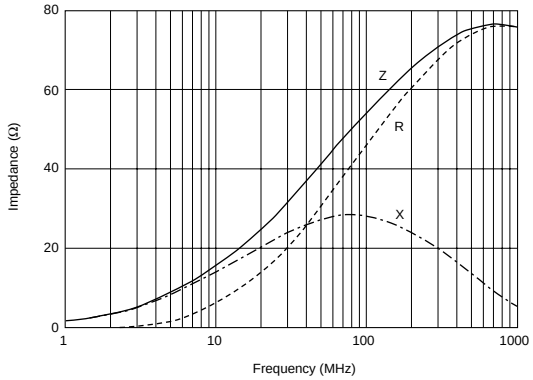


■ Impedance-Frequency Characteristics

BLM31PG330SN1



BLM31PG500SN1



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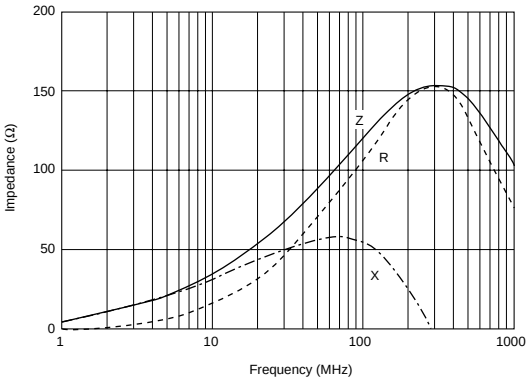
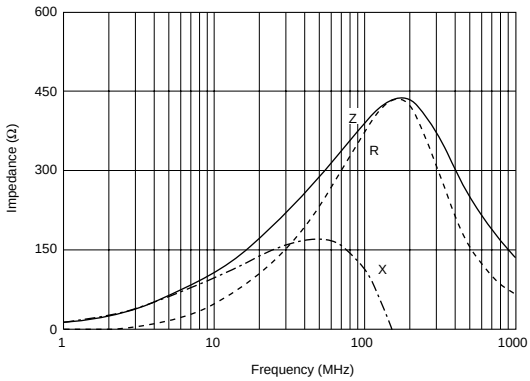
■ Impedance-Frequency Characteristics

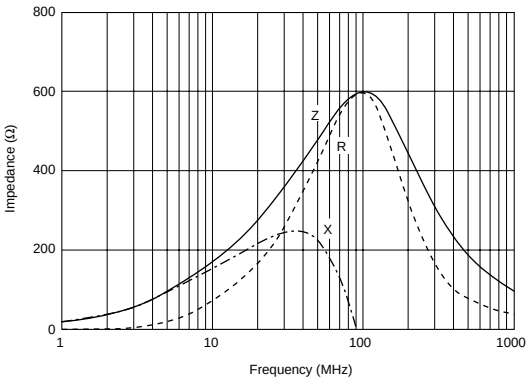
BLM31PG121SN1



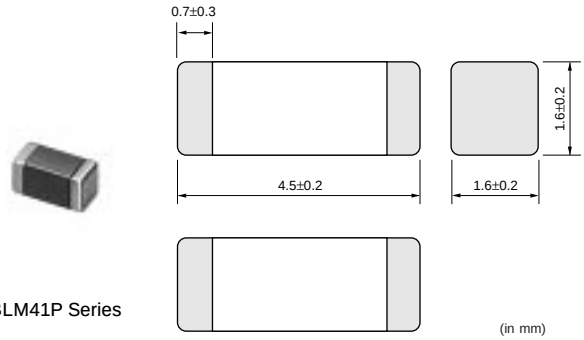
BLM31PG391SN1



BLM31PG601SN1



BLM41P Series (1806 Size)



BLM41P Series

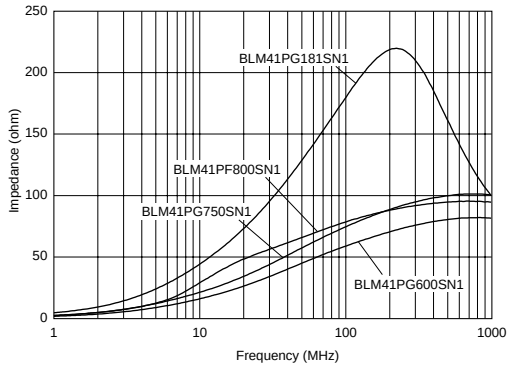
(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM41PG600SN1	60 (Typ.)	6000	0.01	-55 to +125
BLM41PG750SN1	75 (Typ.)	3000	0.025	-55 to +125
BLM41PF800SN1	80 (Typ.)	1000	0.10	-55 to +125
BLM41PG181SN1	180 ±25%	3000	0.025	-55 to +125
BLM41PG471SN1	470 ±25%	2000	0.05	-55 to +125
BLM41PG102SN1	1000 ±25%	1500	0.09	-55 to +125

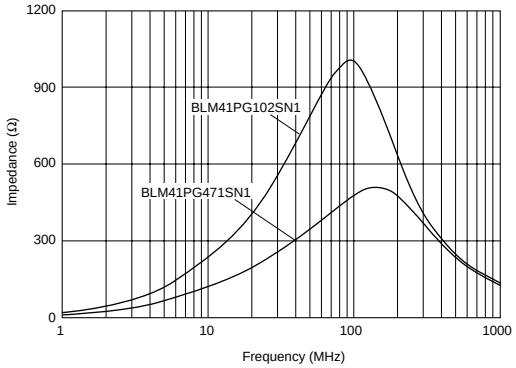
At rated current upper than 1500mA, derating is required.
Please refer P. 54, "Derating of Rated Current".

■ Impedance-Frequency (Typical)

BLM41P Series (80-180ohm)

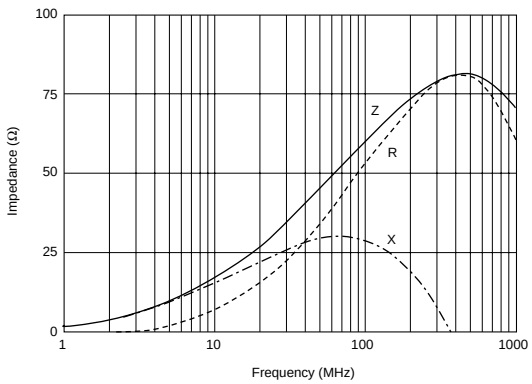


BLM41P Series (470-1000ohm)

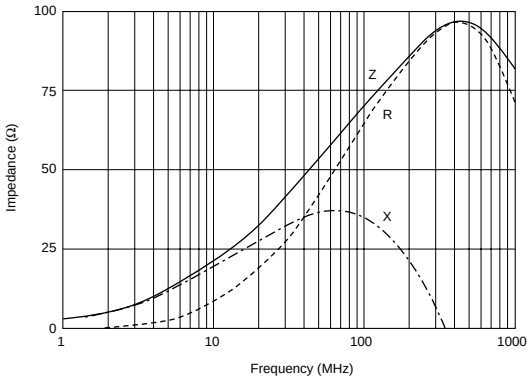


■ Impedance-Frequency Characteristics

BLM41PG600SN1



BLM41PG750SN1



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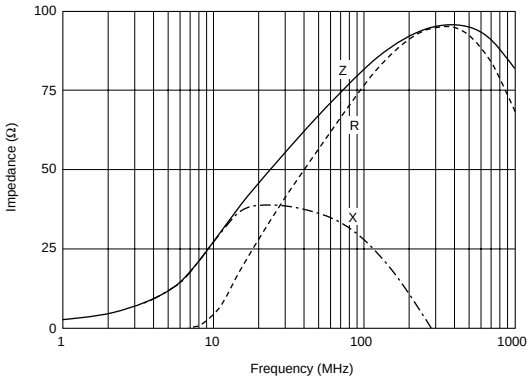
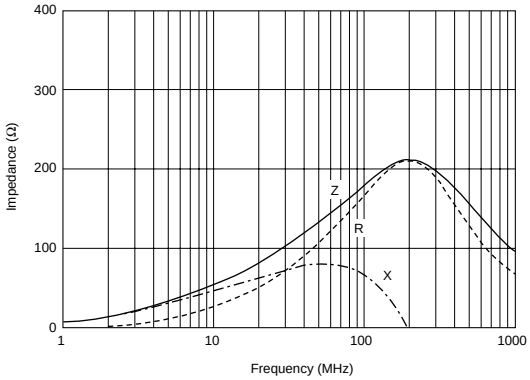
■ Impedance-Frequency Characteristics

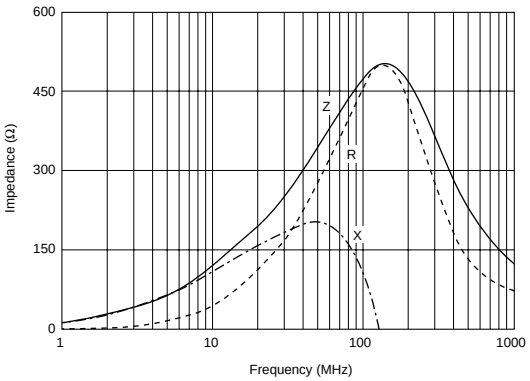
BLM41PF800SN1



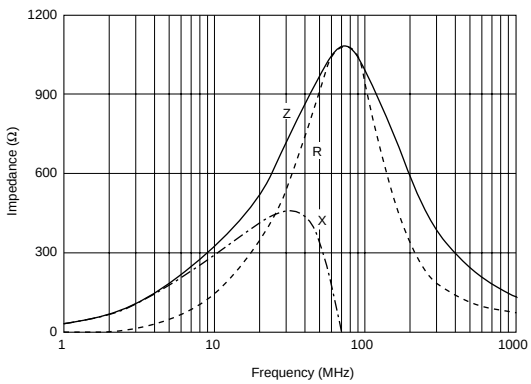
BLM41PG181SN1



BLM41PG471SN1



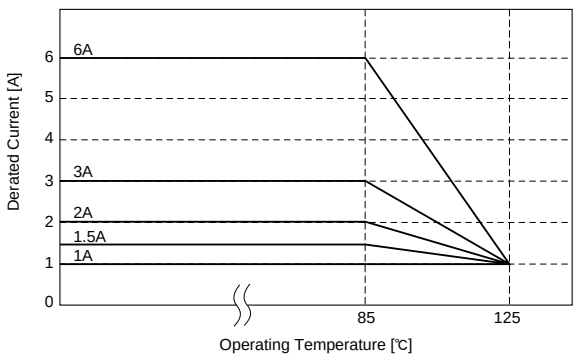
BLM41PG102SN1



■ Notice (Rating)

In operating temperatures exceeding +85℃, derating of current is necessary for chip Ferrite Beads for which rated current is 1500mA or over. Please apply the derating curve shown in chart according to the operating temperature.

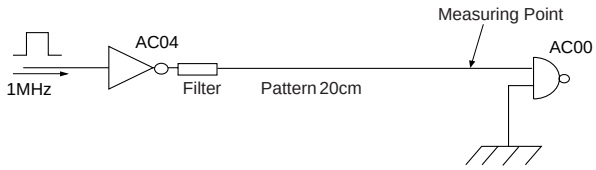
[Derating]

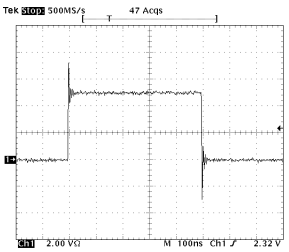
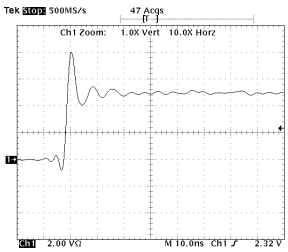
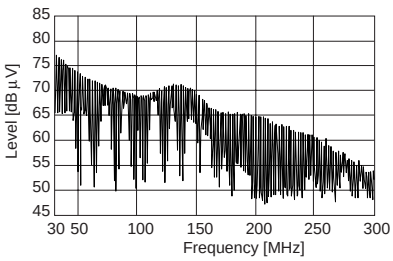
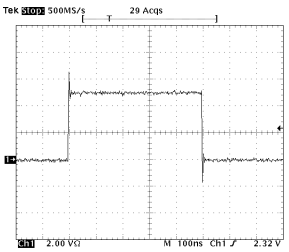
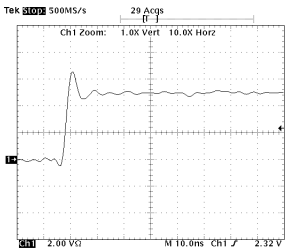
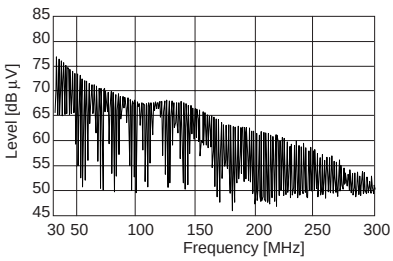
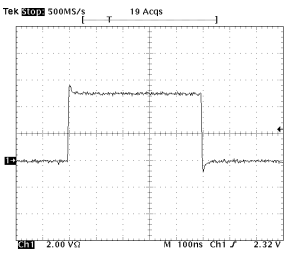
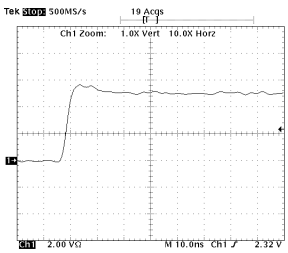
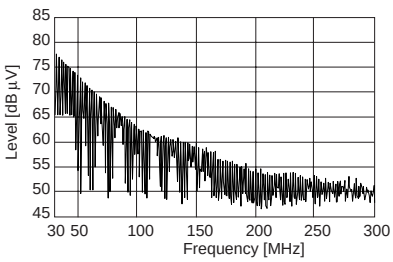


Noise Suppression Effect of BLM_R Series

■Waveform Distortion Suppressing Performance of BLM□□R Series

[Measuring Circuits]



Type of Filter	EMI Suppression Effect / Description
Initial (No filter)	Signal waveform (100nsec/div, 2V/div) / Expand (10nsec/div, 2V/div) / Spectrum    Ringing is caused on the signal waveform. Such ringing contains several hundred MHz harmonic components and generates noise.
Resister (47Ω) is used	Signal waveform (100nsec/div, 2V/div) / Expand (10nsec/div, 2V/div) / Spectrum    Comparing initial waveform, ringing is suppressed a little. However there still remains high level waveform distortion.
BLM18RK221SN1 (220Ω at 100MHz) is used	Signal waveform (100nsec/div, 2V/div) / Expand (10nsec/div, 2V/div) / Spectrum    BLM18R has excellent performance for noise suppression and waveform distortion suppression. BLM18R suppresses drastically not only spectrum level in more than 100MHz range but waveform distortion.

On-Board Type (DC) EMI Suppression Filters (EMIFIL®)

GHz Noise Suppression Chip Ferrite Beads BLM15H/15E/18H/18E/18G Series

Excellent high frequency impedance characteristics with 0402 (EIA) size.

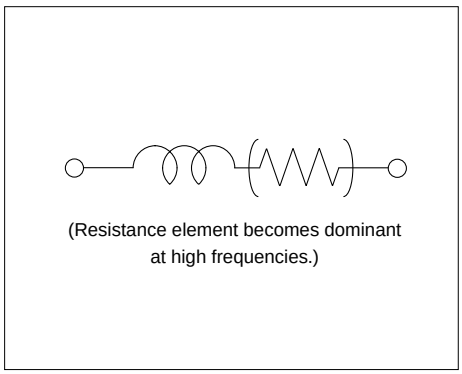
■ Features

1. Small size: 1.0x0.5mm (0402)
2. Suitable for noise suppression in 1GHz or higher frequency
3. Low DC Resistance/Large Rated Current (BLM15E)
4. No Lead production using Ni+Sn plating in termination

■ Applications

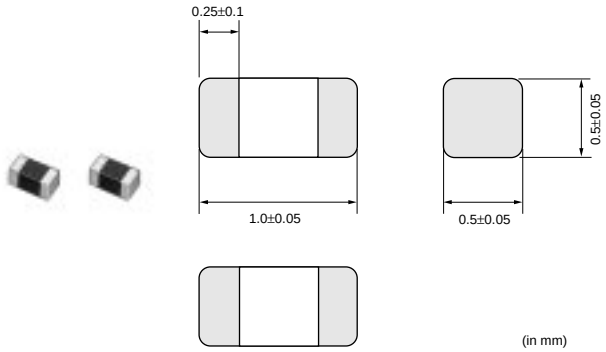
1. EMI suppression for Note PC and DSC
2. Noise suppression for data line in mobile phone
3. Prevention of erroneous operation caused by local oscillation signal in mobile phone
4. Optical pickup modules

■ Equivalent Circuit



(Resistance element becomes dominant at high frequencies.)

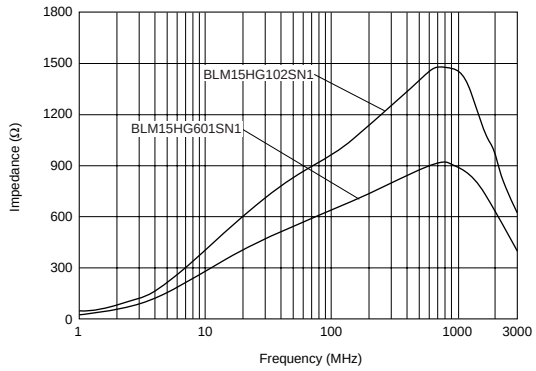
BLM15H Series (0402 Size)



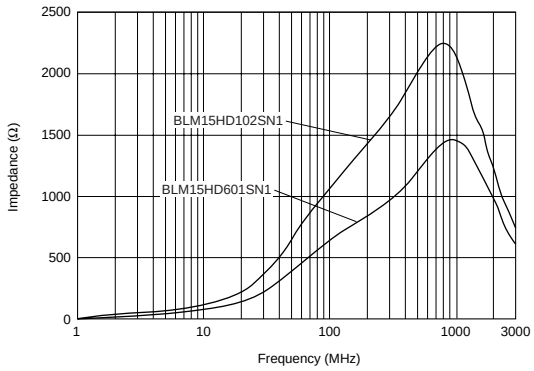
Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Impedance (at 1GHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM15HG601SN1	600 ±25%	1000 ±40%	200	1.3	-55 to +125
BLM15HG102SN1	1000 ±25%	1400 ±40%	100	2.0	-55 to +125
BLM15HD601SN1	600 ±25%	1400 ±40%	100	1.7	-55 to +125
BLM15HD102SN1	1000 ±25%	2000 ±40%	50	2.3	-55 to +125

■ Impedance-Frequency (Typical)

BLM15HG Series

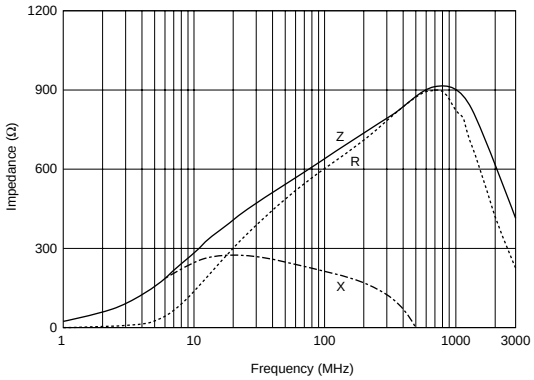


BLM15HD Series

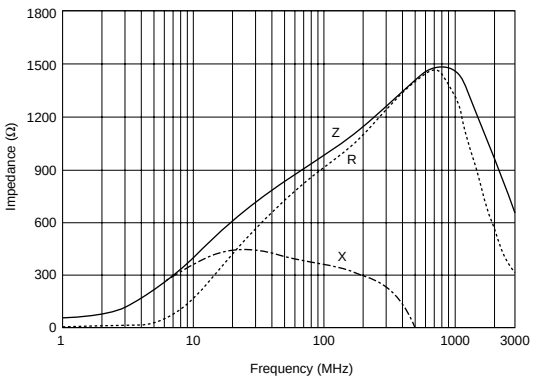


■ Impedance-Frequency Characteristics

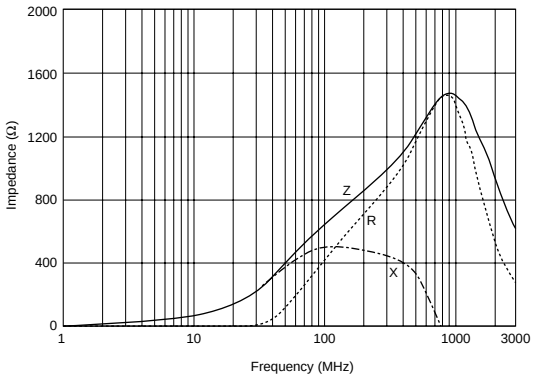
BLM15HG601SN1



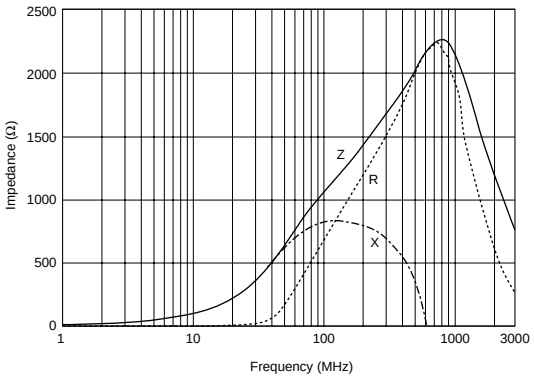
BLM15HG102SN1



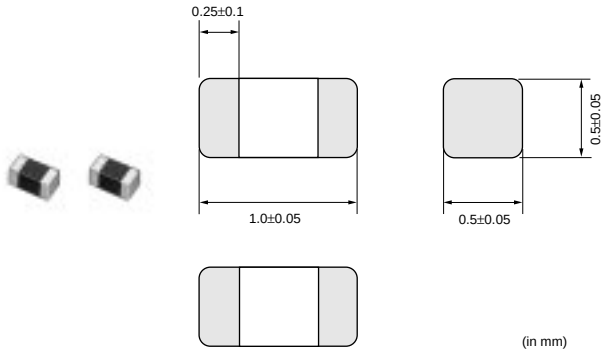
BLM15HD601SN1



BLM15HD102SN1



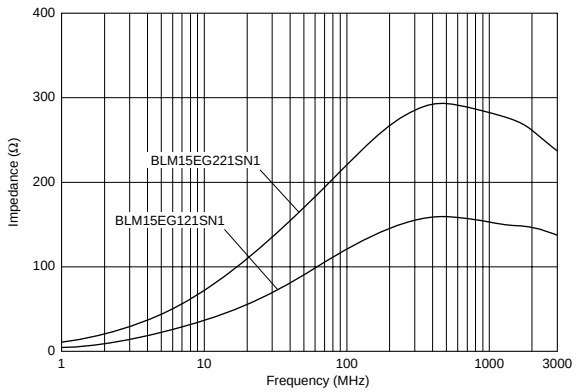
BLM15E Series (0402 Size)



Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Impedance (at 1GHz/20 degree C)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM15EG121SN1	120 ±25%	-	1500	0.10	-55 to +125
BLM15EG221SN1	220 ±25%	-	700	0.28	-55 to +125

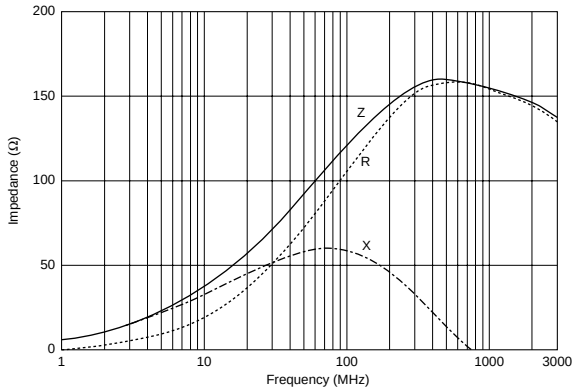
■ Impedance-Frequency (Typical)

BLM15EG Series

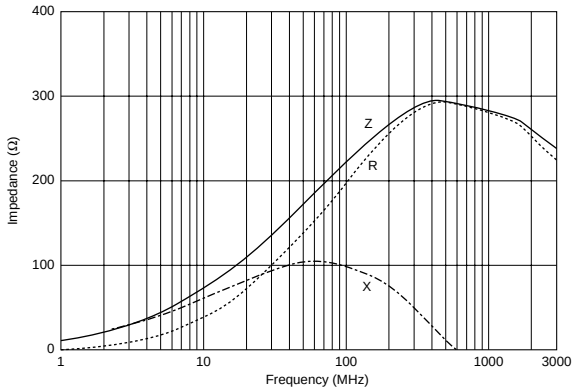


■ Impedance-Frequency Characteristics

BLM15EG121SN1



BLM15EG221SN1



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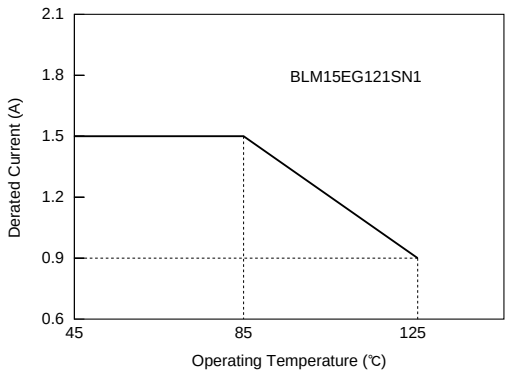
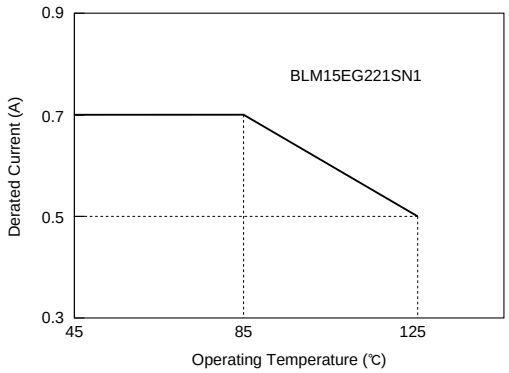
Notice (Rating)

In operating temperature exceeding +85°C, derating of current is necessary for BLM15E series.
Please apply the derating curve shown in chart according to the operating temperature.

[Derating]





■ BLM18 Series

BLM18H/BLM18E series has a modified internal electrode structure, that minimizes stray capacitance and increases the effective frequency range.

■ Features (BLM18H series)

1. BLM18H series realizes high impedance at 1GHz and is suitable for noise suppression from 500MHz to GHz range. The impedance value of HG/HD-type is about three times as large as that of A/B-type at 1GHz though the impedance characteristic of HG/HD-type is similar to A-type at 100MHz or less.
2. HG-type is effective in noise suppression in wide frequency range (several MHz to several GHz). HB/HD-type for high-speed signal line provides a sharper roll-off after the cut off frequency. HK-type for digital interface is effective in suppressing the ringing because resistance especially grows in the lower frequency.
3. The magnetic shielded structure minimizes cross talk.

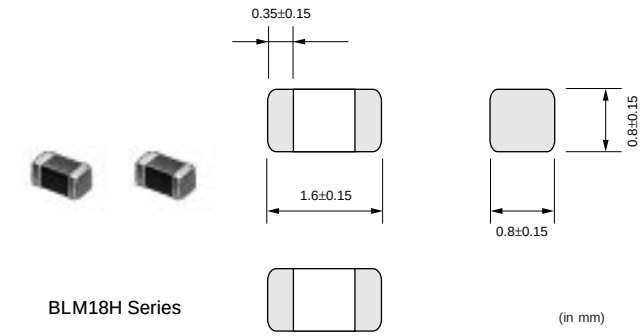
■ Features (BLM18E series)

1. Low DC Resistance and a large Rated Current are suitable for noise suppression of the driver circuit.
2. Excellent direct current characteristics
3. Thin type (t=0.5mm) is suitable for small and low profile equipment such as DSC, cellular phones.

■ Equivalent Circuit

(Resistance element becomes dominant at high frequencies.)

BLM18H Series (0603 Size)



BLM18H Series

(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Impedance (at 1GHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18HG471SN1	470 ±25%	600 (Typ.)	200	0.85	-55 to +125
BLM18HG601SN1	600 ±25%	700 (Typ.)	200	1.00	-55 to +125
BLM18HG102SN1	1000 ±25%	1000 (Typ.)	100	1.60	-55 to +125
BLM18HB121SN1	120 ±25%	500 ±40%	200	0.50	-55 to +125
BLM18HB221SN1	220 ±25%	1100 ±40%	100	0.80	-55 to +125
BLM18HB331SN1	330 ±25%	1600 ±40%	50	1.20	-55 to +125
BLM18HD471SN1	470 ±25%	1000 (Typ.)	100	1.20	-55 to +125
BLM18HD601SN1	600 ±25%	1200 (Typ.)	100	1.50	-55 to +125
BLM18HD102SN1	1000 ±25%	1700 (Typ.)	50	1.80	-55 to +125
BLM18HK331SN1	330 ±25%	400 ±40%	200	0.50	-55 to +125
BLM18HK471SN1	470 ±25%	600 ±40%	200	0.70	-55 to +125

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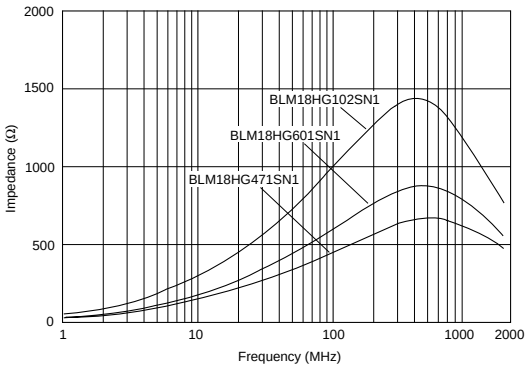
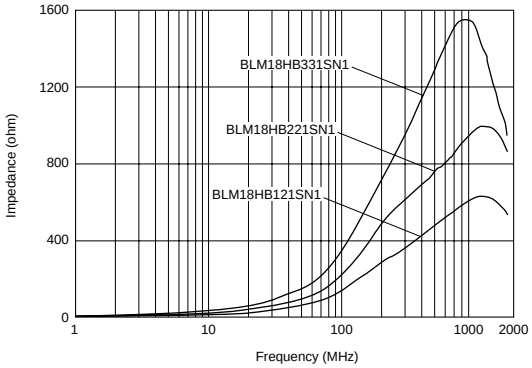
Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Impedance (at 1GHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18HK601SN1	600 ±25%	700 ±40%	100	0.90	-55 to +125
BLM18HK102SN1	1000 ±25%	1200 ±40%	50	1.50	-55 to +125

■ Impedance-Frequency (Typical)

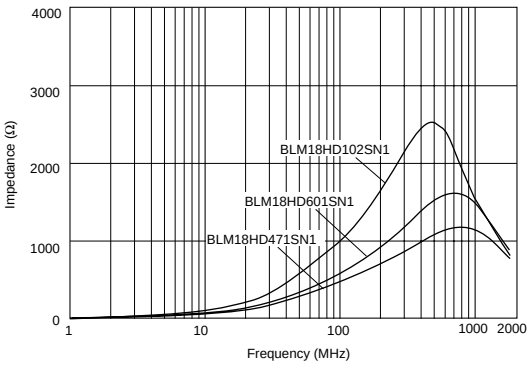
BLM18HG Series



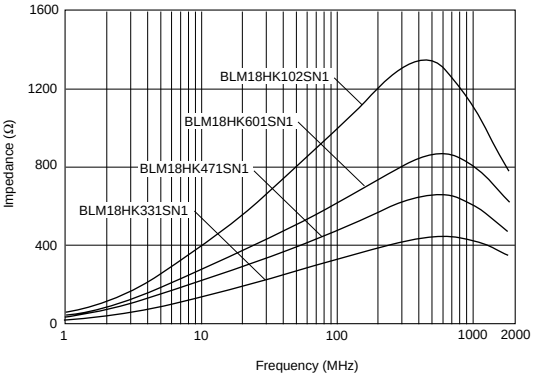
BLM18HB Series



BLM18HD Series

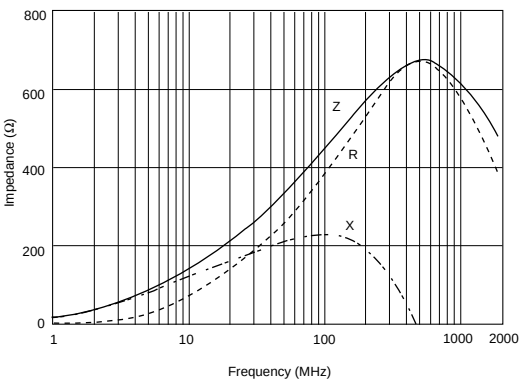


BLM18HK Series

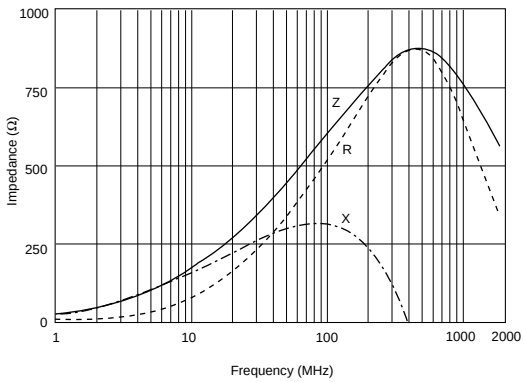


■ Impedance-Frequency Characteristics

BLM18HG471SN1



BLM18HG601SN1



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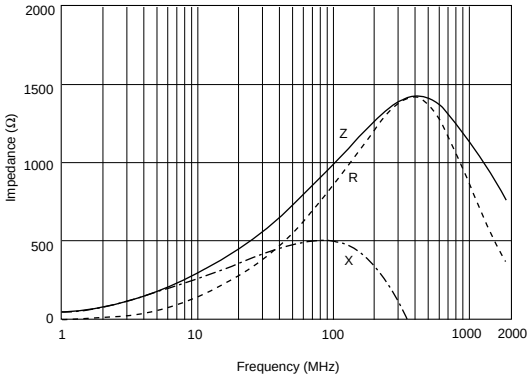
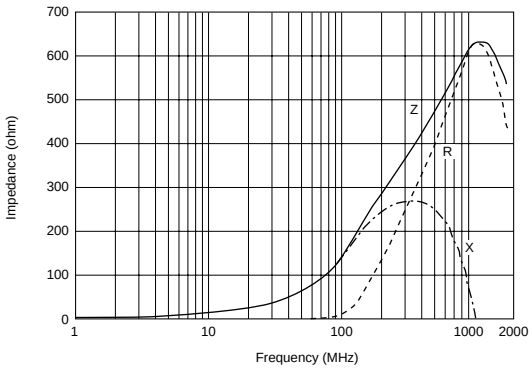
■ Impedance-Frequency Characteristics

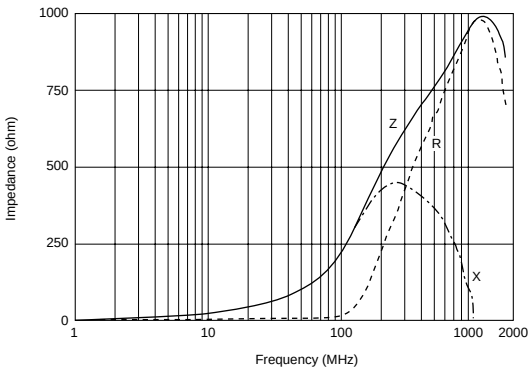
BLM18HG102SN1



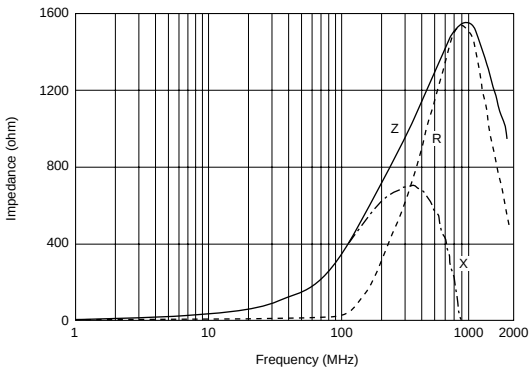
BLM18HB121SN1



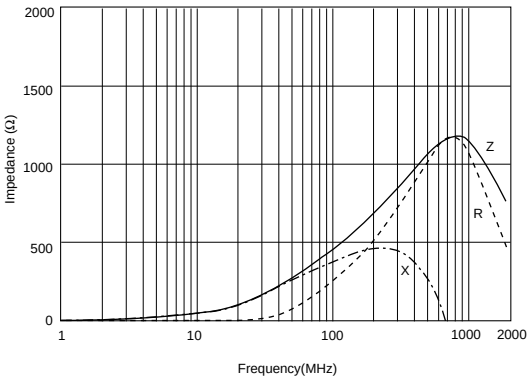
BLM18HB221SN1



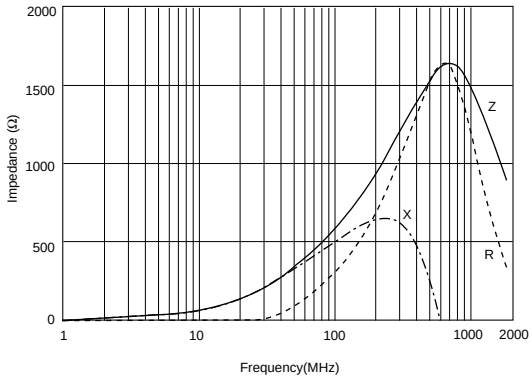
BLM18HB331SN1



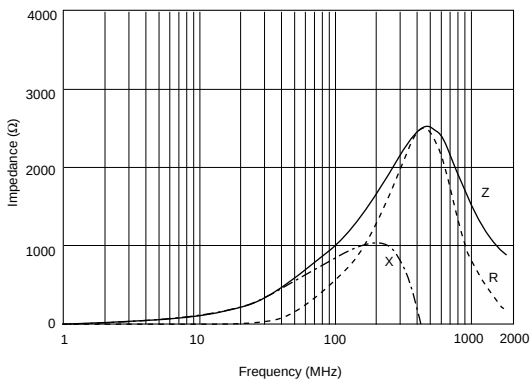
BLM18HD471SN1



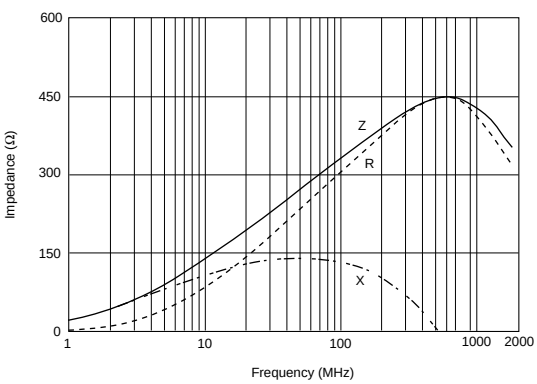
BLM18HD601SN1



BLM18HD102SN1



BLM18HK331SN1



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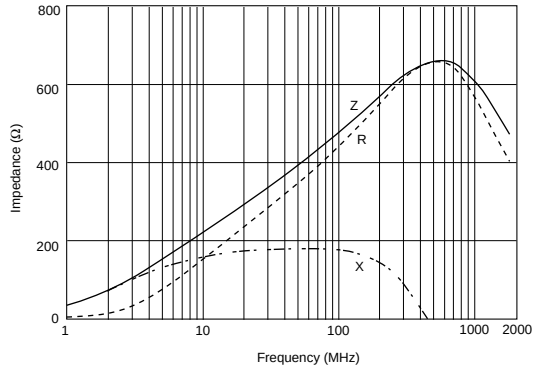
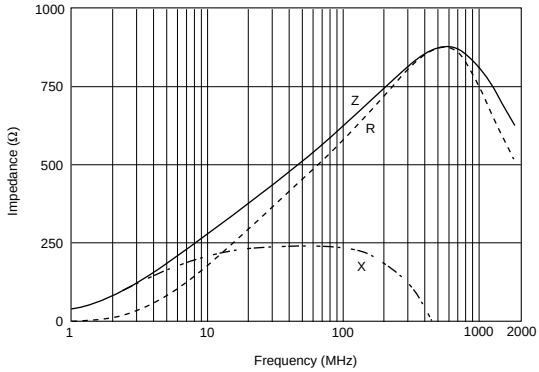
■ Impedance-Frequency Characteristics

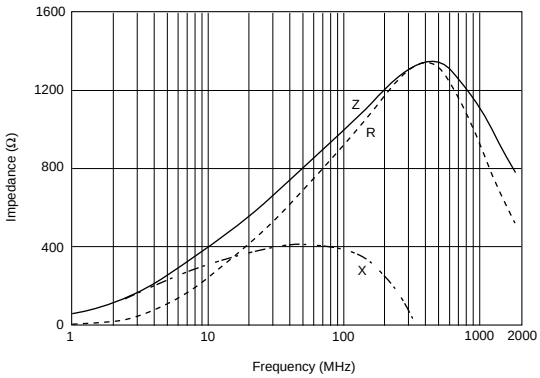
BLM18HK471SN1



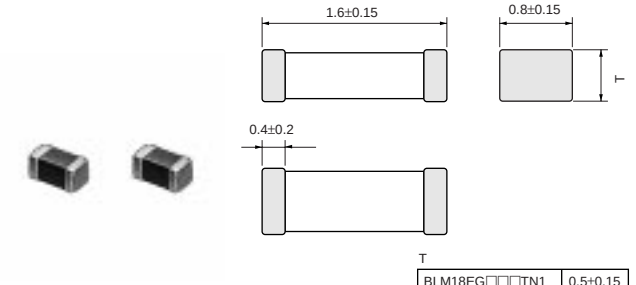
BLM18HK601SN1



BLM18HK102SN1



BLM18E Series (0603 Size)



BLM18E Series

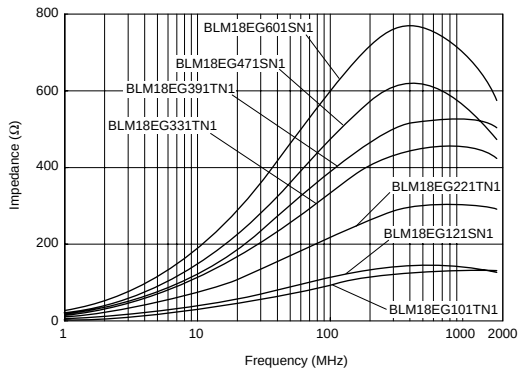
BLM18EG□□□TN1	0.5±0.15
BLM18EG□□□SN1	0.8±0.15

(in mm)

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Impedance (at 1GHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18EG101TN1	100 ±25%	140 (Typ.)	2000	0.045	-55 to +125
BLM18EG121SN1	120 ±25%	145 (Typ.)	2000	0.04	-55 to +125
BLM18EG221TN1	220 ±25%	300 (Typ.)	1000	0.15	-55 to +125
BLM18EG331TN1	330 ±25%	450 (Typ.)	500	0.21	-55 to +125
BLM18EG391TN1	390 ±25%	520 (Typ.)	500	0.3	-55 to +125
BLM18EG471SN1	470 ±25%	550 (Typ.)	500	0.21	-55 to +125
BLM18EG601SN1	600 ±25%	700 (Typ.)	500	0.35	-55 to +125

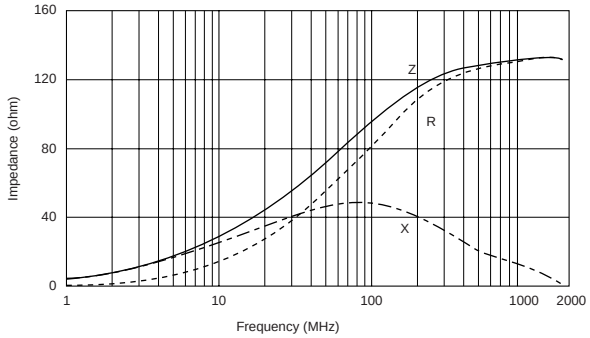
At rated current 2000mA, derating is required.
Please refer P. 65, "Derating of Rated Current".

■ Impedance-Frequency (Typical)

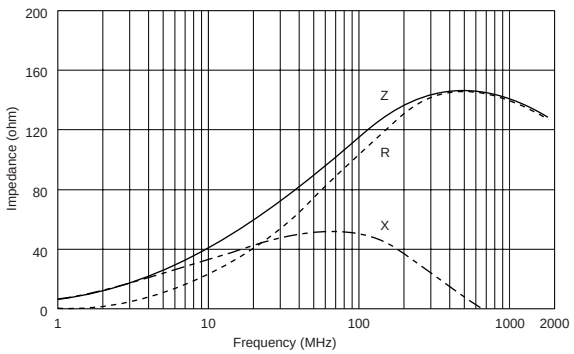


■ Impedance-Frequency Characteristics

BLM18EG101TN1



BLM18EG121SN1



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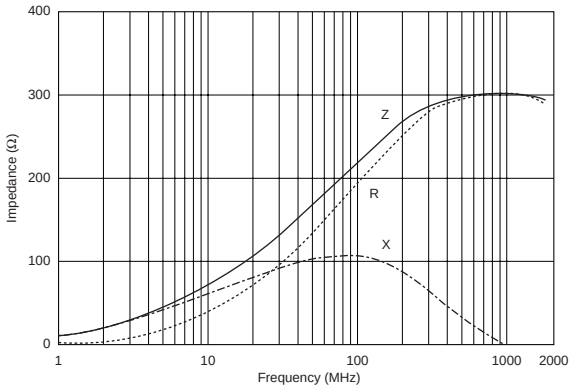
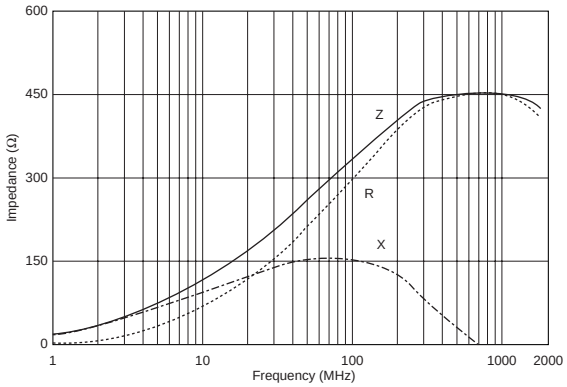
■ Impedance-Frequency Characteristics

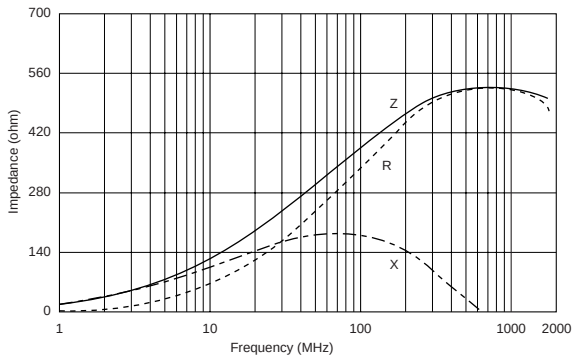
BLM18EG221TN1



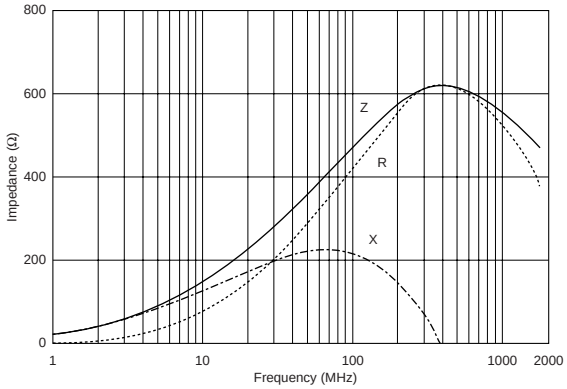
BLM18EG331SN1



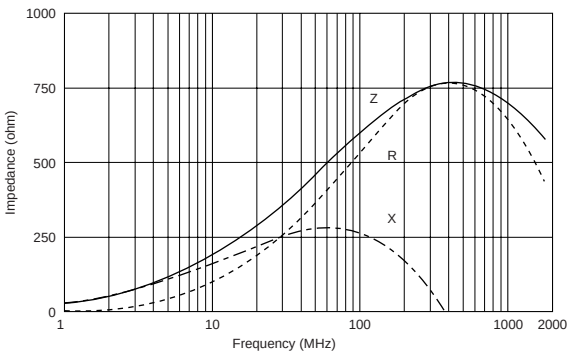
BLM18EG391TN1



BLM18EG471SN1



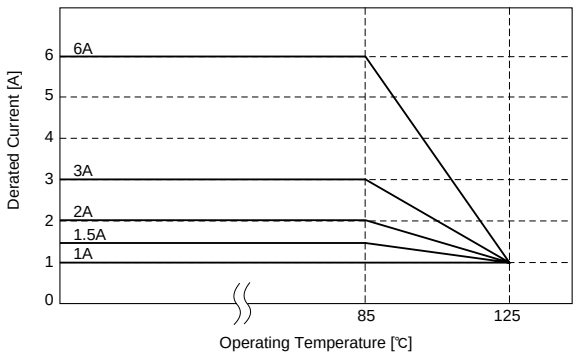
BLM18EG601SN1



■ Notice (Rating)

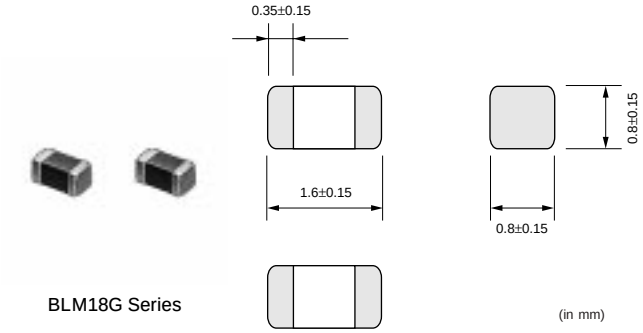
In operating temperatures exceeding +85℃, derating of current is necessary for chip Ferrite Beads for which rated current is 1500mA or over. Please apply the derating curve shown in chart according to the operating temperature.

[Derating]



BLM18G Series (0603 Size)

Chip ferrite beads for high frequency noise suppression over a wide frequency range.



■ Features

1. High impedance characteristic in 1GHz or higher frequency
2. High impedance characteristic over a wide frequency band range of 100MHz to 6GHz
3. Small decrease in impedance during current loading, resulting in small impedance fluctuation during equipment operation.
4. Reflow soldering only

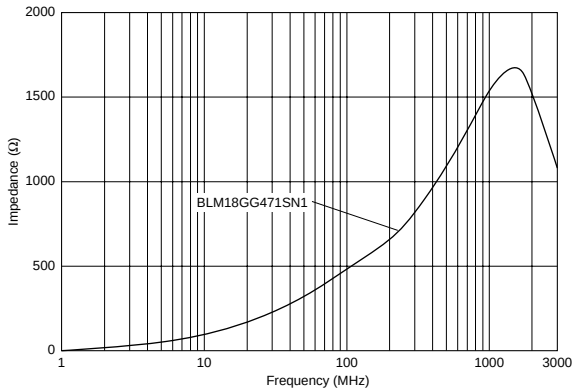
■ Applications

1. Noise suppression for PCs with high-speed CPU and high-speed bus, and for interface line of peripheral equipment.
2. High harmonic noise suppression for digital equipment with several hundred MHz or higher clock speeds.
3. Prevention of erroneous operation caused by local oscillation signals in mobile phone and WLAN module (ensuring self-immunity).
4. Bias Tee modules in optical transceivers

Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Impedance (at 1GHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18GG471SN1	470 ±25%	1800 ±30%	200	1.30	-55 to +125

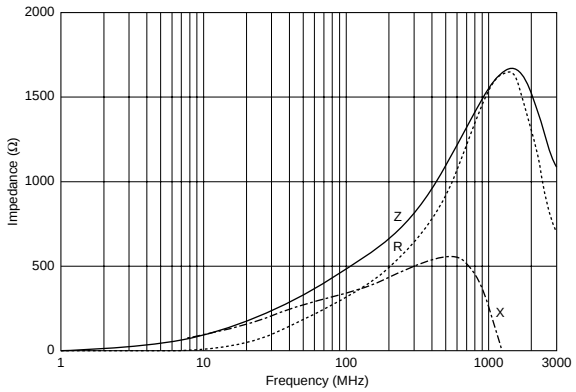
■ Impedance-Frequency (Typical)

BLM18GG Series



■ Impedance-Frequency Characteristics

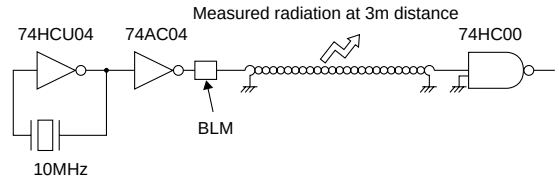
BLM18GG471SN1

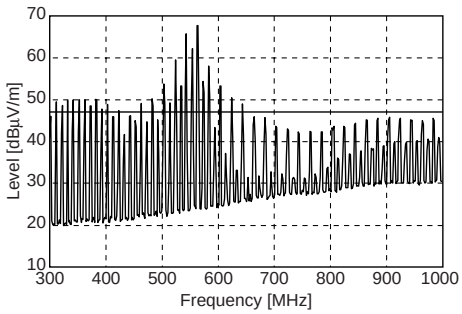
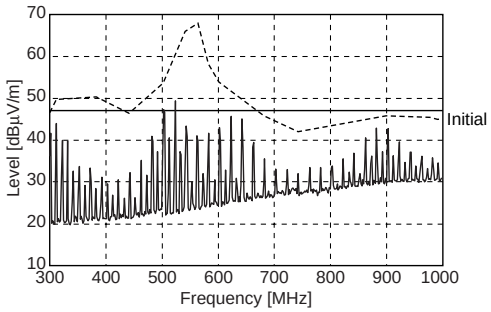
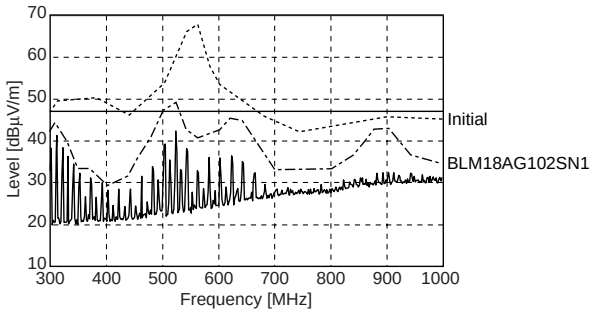


Noise Suppression Effect

■Noise Suppression in UHF Range

[Testing Circuit]



Type of Filter	EMI Suppression Effect	Description
Initial (No filter)		
Conventional Type **BLM18AG102SN1** (1000Ω at 100MHz)		Current BLM are effective in suppressing noise in the range between 300MHz and 700MHz.
for GHz Noize Suppression **BLM18HG102SN1** (1000Ω at 100MHz)		In addition to the effectiveness of current BLM, BLM18HG suppresses noise in the range beyond 700MHz.

Comparison between BLM18HG102SN1 and BLM18AG102SN1 (Current Item)