

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

**muRata**

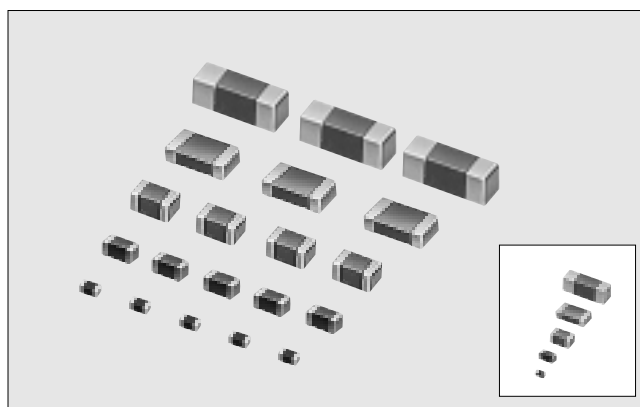
## Chip Ferrite Bead BLM Series

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

The chip ferrite bead BLM series comprises ferrite bead inductors in the shape of a chip. This inductor 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 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 bead is also cataloged.)

The nickel barrier structure of the external electrodes provides excellent solder heat resistance. Both flow and reflow soldering methods can be employed.



### ■Features

The BLM series comprises, the R series (for digital interface), the A series (for standard), the B series (for high speed signal), and the P series (for large current).

#### 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 effect 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).

### ■Difference between A Series, B Series and R Series

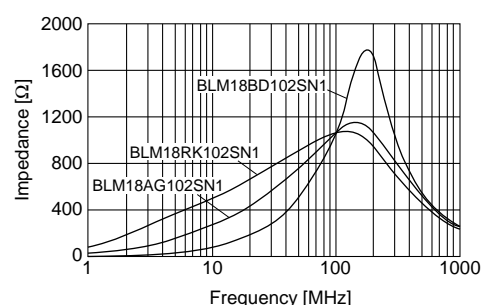
The BLM□□B series has sharp impedance characteristics and it does not affect the signal frequency. The BLM□□R series has resistance especially growing in the lower frequency range. Therefore it can suppress the ringing effectively.

### ■Equivalent Circuit Diagram



(Resistance element becomes dominant at high frequencies.)

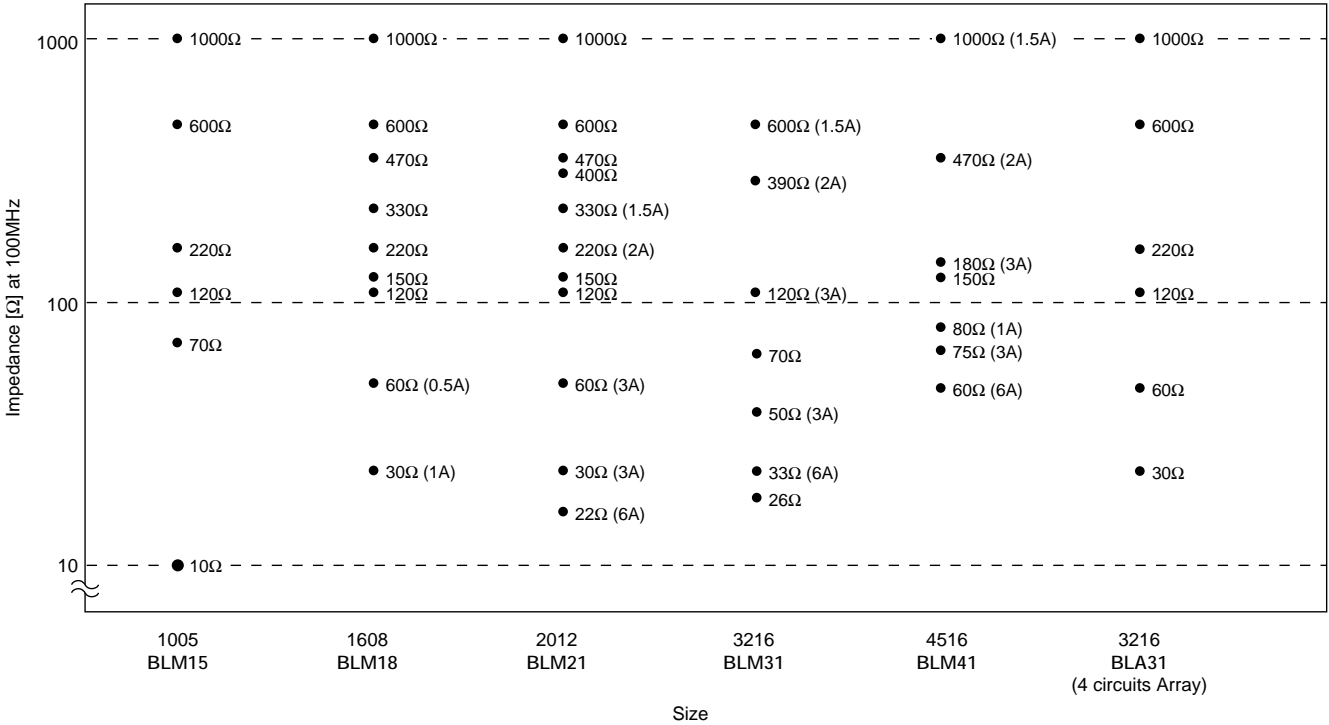
[Impedance Characteristics]



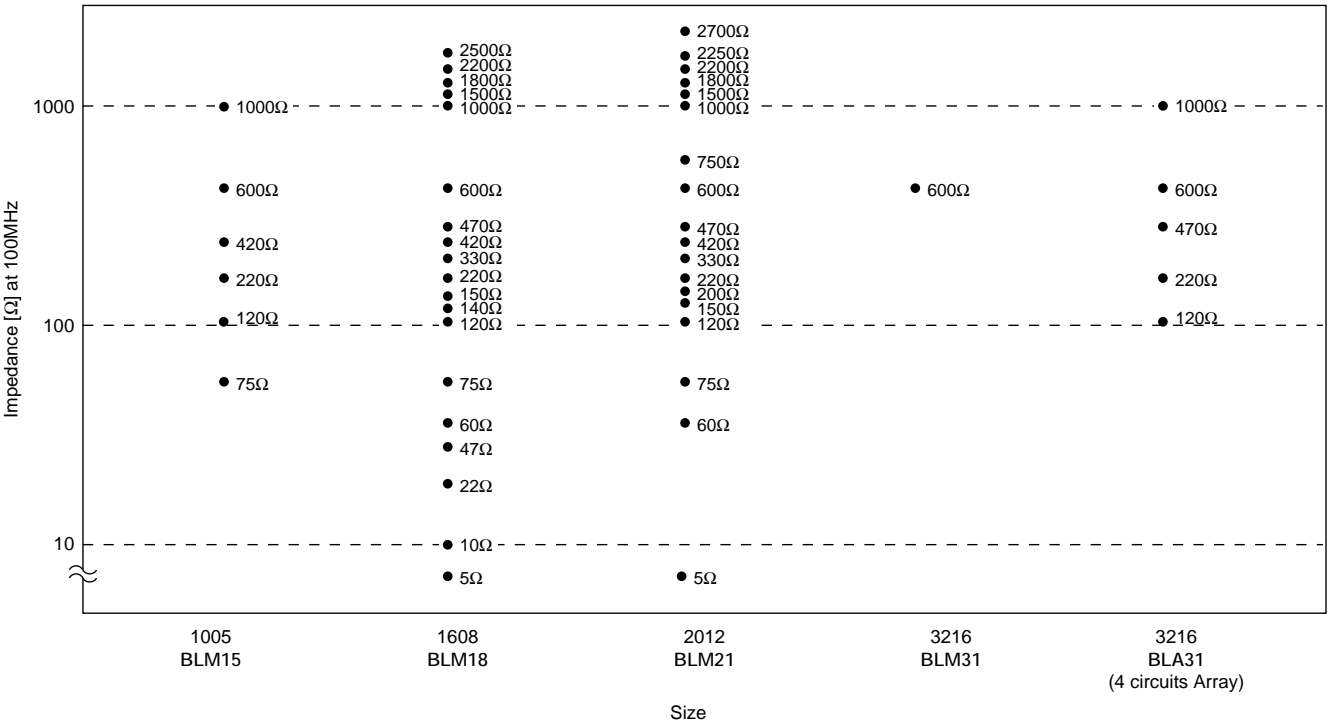
■ Selection Guide

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● BLM□□A series-Standard / BLM□□R series-For Digital Interface / BLM□□P series-For Large Current




● BLM□□B series-For High Speed Signal




## ■ BLM Series


BLM SERIES				
Type	Size(mm)	Part Number	Impedance (Ω) at 100MHz	Rated Current (mA)
BLM□□R Series -For Digital Interface	1.6×0.8	BLM18RK121SN1	120±25%	200
		BLM18RK221SN1	220±25%	
		BLM18RK471SN1	470±25%	
		BLM18RK601SN1	600±25%	
		BLM18RK102SN1	1000±25%	
	2.0×1.25	BLM21RK121SN1	120±25%	
		BLM21RK221SN1	220±25%	
		BLM21RK471SN1	470±25%	
		BLM21RK601SN1	600±25%	
		BLM21RK102SN1	1000±25%	
BLM□□A Series -For Standard	1.0×0.5	BLM15AG100PN1	10 (Typ.)	500
		BLM15AG700PN1	70 (Typ.)	200
		BLM15AG121PN1	120 (Typ.)	100
		BLM15AG221PN1	220±25%	50
		BLM15AG601PN1	600±25%	
		BLM15AG102PN1	1000±25%	
	1.6×0.8	BLM18AG121SN1	120±25%	200
		BLM18AG151SN1	150±25%	
		BLM18AG221SN1	220±25%	
		BLM18AG331SN1	330±25%	
		BLM18AG471SN1	470±25%	
		BLM18AG601SN1	600±25%	
		BLM18AG102SN1	1000±25%	100
		2.0×1.25	BLM21AG121SN1	120±25%
	BLM21AG151SN1		150±25%	
	BLM21AG221SN1		220±25%	
	BLM21AG331SN1		330±25%	
	BLM21AJ401SN1		400±25%	
	BLM21AG471SN1		470±25%	
	BLM21AG601SN1		600±25%	
	BLM21AJ601SN1			
	BLM21AG102SN1		1000±25%	
	BLM21AJ102SN1			
	3.2×1.6	BLM31AJ260SN1	26±25%	500
		BLM31AF700SN1	70±25%	200
		BLM31AJ601SN1	600±25%	
	4.5×1.6	BLM41AF800SN1	80±25%	500
		BLM41AF151SN1	150±25%	200
BLM□□B Series -For High Speed Signal (Sharp impedance characteristic)	1.0×0.5	BLM15BB750PN1	75±25%	100
		BLM15BB121PN1	120±25%	50
		BLM15BB221PN1	220±25%	
		BLM15BD421PN1	420±25%	
		BLM15BD601PN1	600±25%	
		BLM15BD102PN1	1000±25%	
	1.6×0.8	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
		BLM18BB750SN1	75±25%	
		BLM18BA750SN1		300
		BLM18BA121SN1	120±25%	200
		BLM18BB121SN1		

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Type	Size(mm)	Part Number	Impedance (Ω) at 100MHz	Rated Current (mA)
BLM□□B Series -For High Speed Signal (Sharp impedance characteristic)	1.6×0.8	BLM18BD121SN1	120±25%	200
		BLM18BB141SN1	140±25%	
		BLM18BB151SN1	150±25%	
		BLM18BD151SN1		
		BLM18BB221SN1	220±25%	
		BLM18BD221SN1		
		BLM18BB331SN1	330±25%	
		BLM18BD331SN1		
		BLM18BD421SN1	420±25%	
		BLM18BB471SN1	470±25%	
		BLM18BD471SN1		
		BLM18BD601SN1	600±25%	200
		BLM18BD102SN1	1000±25%	100
		BLM18BD152SN1	1500±25%	50
		BLM18BD182SN1	1800±25%	
		BLM18BD222SN1	2200±25%	
		BLM18BD252SN1	2500±25%	
BLM□□B Series -For High Frequency (Sharp impedance characteristic)	2.0×1.25	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%	
	3.2×1.6	BLM31BE601FN1	600±25%	300

\* Impedance±25% guarantee type is also available. Please contact for further details.

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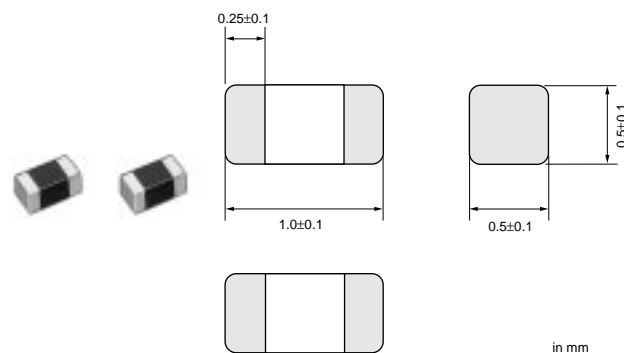
Type	Size(mm)	Part Number	Impedance ( $\Omega$ ) at 100MHz	Rated Current (mA)
BLM□□P Series* -For Large Current	1.6×0.8	BLM18PG300SN1	30 (Typ.)	1000
		BLM18PG600SN1	60 (Typ.)	500
	2.0×1.25	BLM21PG220SN1	22 (Typ.)	6000
		BLM21PG300SN1	30 (Typ.)	3000
		BLM21PG600SN1	60 (Typ.)	
		BLM21PG221SN1	220 (Typ.)	2000
		BLM21PG331SN1	330 (Typ.)	1500
	3.2×1.6	BLM31PG330SN1	33 (Typ.)	6000
		BLM31PG500SN1	50 (Typ.)	3000
		BLM31PG121SN1	120 (Typ.)	
		BLM31PG391SN1	390 (Typ.)	2000
		BLM31PG601SN1	600 (Typ.)	1500
	4.5×1.6	BLM41PG600SN1	60 (Typ.)	6000
		BLM41PG750SN1	75 (Typ.)	3000
		BLM41PF800SN1	80 (Typ.)	1000
		BLM41PG181SN1	180 (Typ.)	3000
		BLM41PG471SN1	470 (Typ.)	2000
		BLM41PG102SN1	1000 (Typ.)	1500
BLM□□H□ Series For GHz Range Noise Suppression	BLM□□HG Series -For Standard	BLM18HG471SN1	470±25%	200
		BLM18HG601SN1	600±25%	
	BLM□□HD Series -For High Speed Signal	BLM18HG102SN1	1000±25%	100
		BLM18HD471SN1	470±25%	
		BLM18HD601SN1	600±25%	50
		BLM18HD102SN1	1000±25%	
	BLM□□HK Series -For Digital Interface	BLM18HK331SN1	330±25%	200
		BLM18HK471SN1	470±25%	
		BLM18HK601SN1	600±25%	100
		BLM18HK102SN1	1000±25%	50

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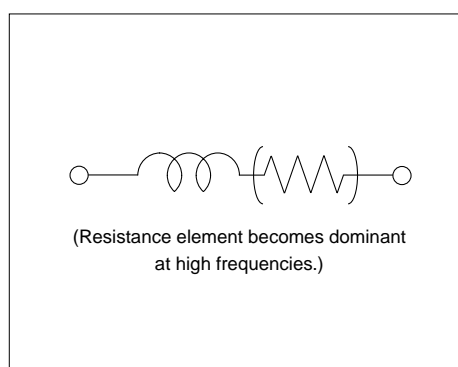
## Chip Ferrite Beads BLM15/BLM18/BLM21/BLM31/BLM41 Series

### BLM15 Series(1005 Size)

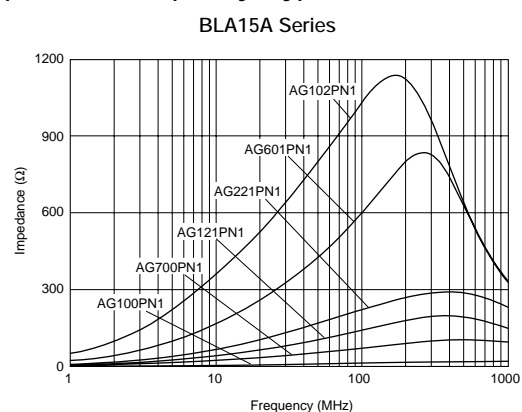


Part Number	Impedance (at 100MHz) (ohm)	Rated Current (mA)	DC Resistance(max.) (ohm)	Operating Temperature Range (°C)
BLM15AG100PN1	10 (Typ.)	500	0.05	-55 to 125
BLM15AG700PN1	70 (Typ.)	200	0.40	-55 to 125
BLM15AG121PN1	120 (Typ.)	200	0.50	-55 to 125
BLM15AG221PN1	220 ±25%	100	0.70	-55 to 125
BLM15AG601PN1	600 ±25%	50	1.10	-55 to 125
BLM15AG102PN1	1000 ±25%	50	1.50	-55 to 125
BLM15BB750PN1	75 ±25%	100	0.80	-55 to 125
BLM15BB121PN1	120 ±25%	50	1.10	-55 to 125
BLM15BB221PN1	220 ±25%	50	1.40	-55 to 125
BLM15BD421PN1	420 ±25%	50	1.30	-55 to 125
BLM15BD601PN1	600 ±25%	50	1.50	-55 to 125
BLM15BD102PN1	1000 ±25%	50	1.30	-55 to 125


### ■ Equivalent Circuit



### ■ Impedance-Frequency (Typical)



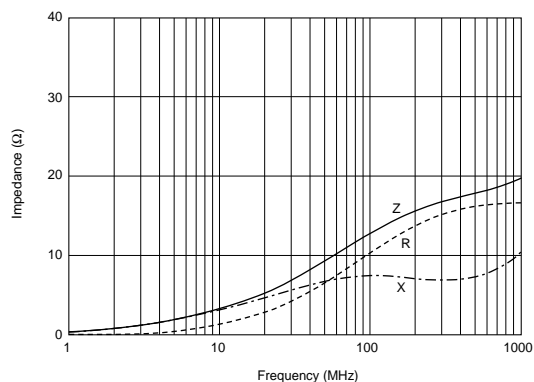
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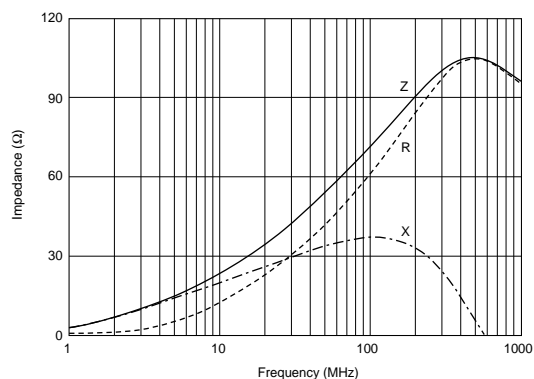
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## ■ Impedance-Frequency Characteristics

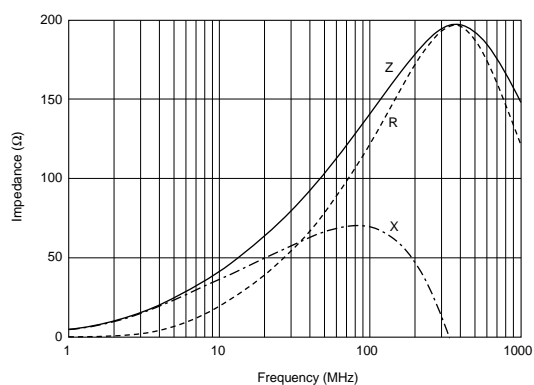
BLM15AG100PN1



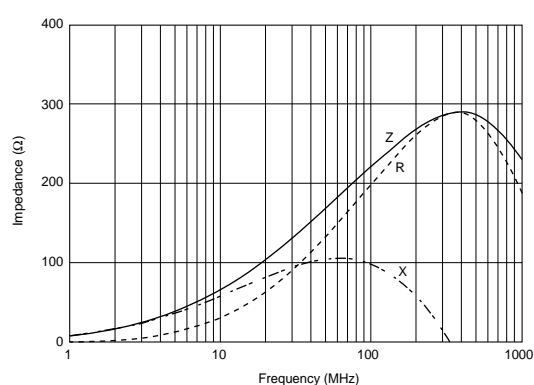
BLM15AG700PN1



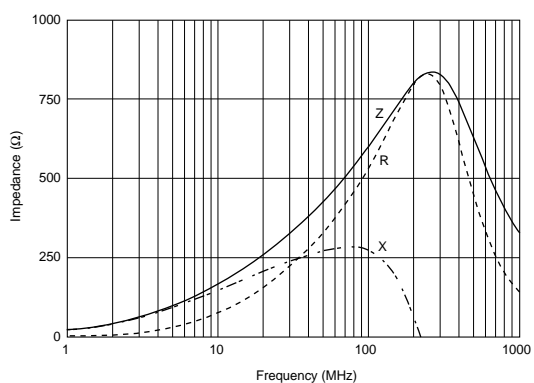
BLM15AG121PN1



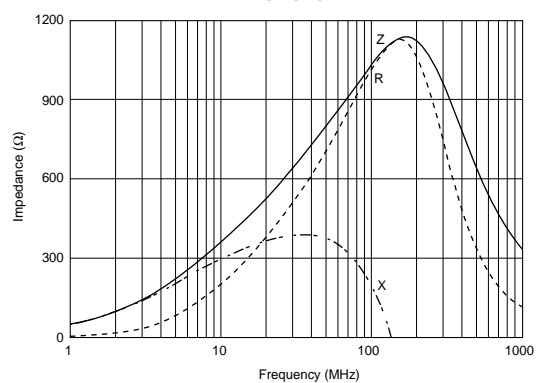
BLM15AG221PN1



BLM15AG601PN1

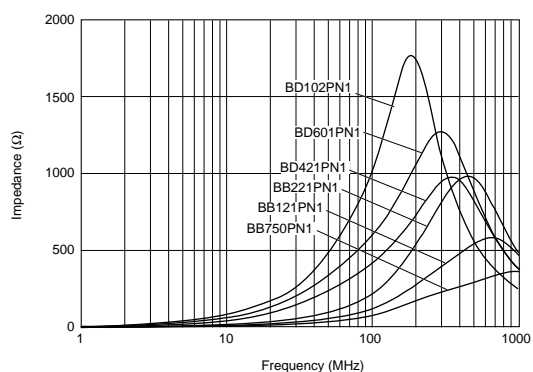


BLM15AG102PN1



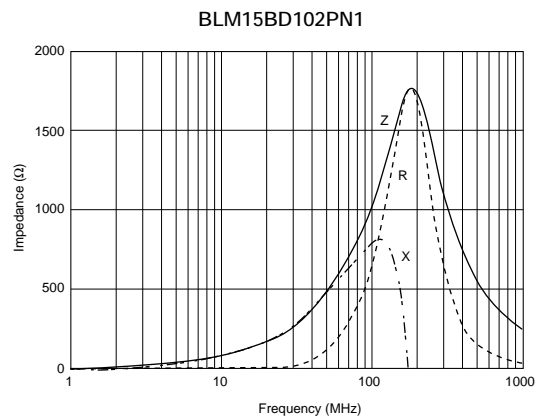
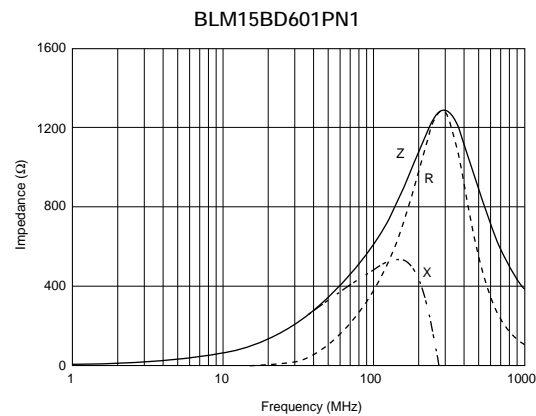
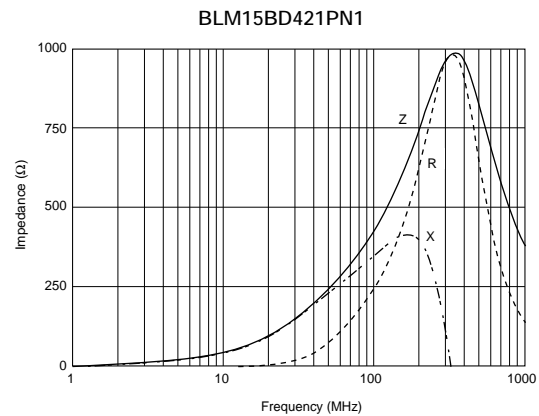
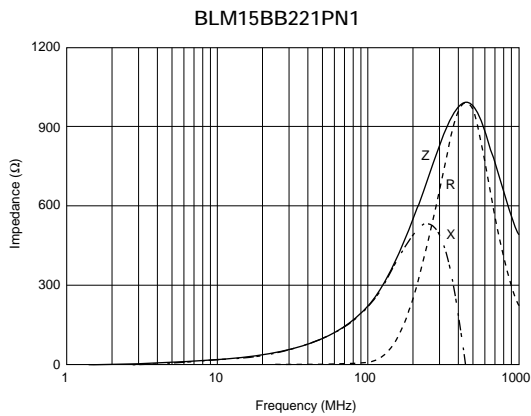
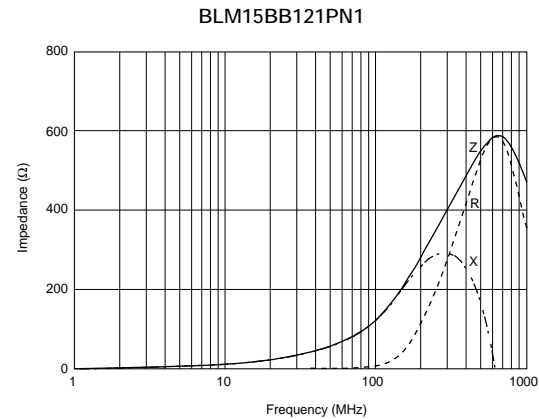
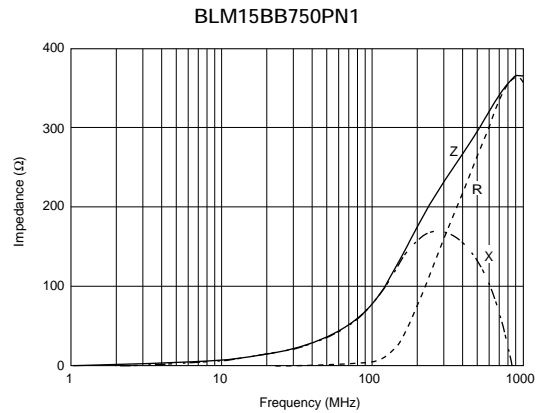
## ■ Impedance-Frequency (Typical)

BLA15B Series

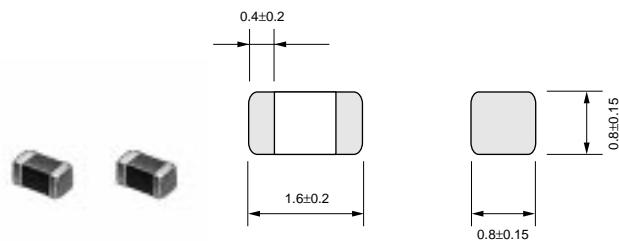


■ Impedance-Frequency Characteristics

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**BLM18 Series(1608 Size)**

in mm

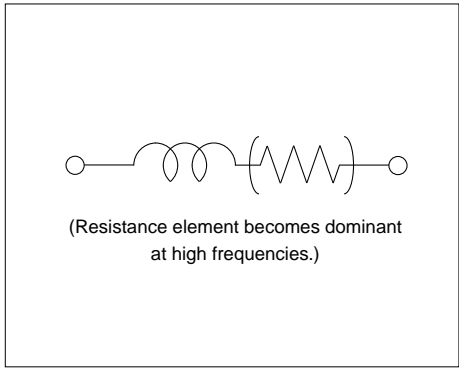
Part Number	Impedance (at 100MHz) (ohm)	Rated Current (mA)	DC Resistance(max.) (ohm)	Operating Temperature Range (°C)
BLM18AG121SN1	120 ±25%	200	0.20	-55 to 125
BLM18AG151SN1	150 ±25%	200	0.25	-55 to 125
BLM18AG221SN1	220 ±25%	200	0.30	-55 to 125
BLM18AG331SN1	330 ±25%	200	0.45	-55 to 125
BLM18AG471SN1	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
BLM18BA050SN1	5 ±25%	500	0.20	-55 to 125
BLM18BA100SN1	10 ±25%	500	0.25	-55 to 125
BLM18BA220SN1	22 ±25%	500	0.35	-55 to 125
BLM18BA470SN1	47 ±25%	300	0.55	-55 to 125
BLM18BA750SN1	75 ±25%	300	0.70	-55 to 125
BLM18BA121SN1	120 ±25%	200	0.90	-55 to 125
BLM18BB050SN1	5 ±25%	700	0.10	-55 to 125
BLM18BB100SN1	10 ±25%	500	0.15	-55 to 125
BLM18BB220SN1	22 ±25%	500	0.25	-55 to 125
BLM18BB470SN1	47 ±25%	500	0.30	-55 to 125
BLM18BB600SN1	60 ±25%	200	0.35	-55 to 125
BLM18BB750SN1	75 ±25%	200	0.35	-55 to 125
BLM18BB121SN1	120 ±25%	200	0.50	-55 to 125
BLM18BB141SN1	140 ±25%	200	0.55	-55 to 125
BLM18BB151SN1	150 ±25%	200	0.55	-55 to 125
BLM18BB221SN1	220 ±25%	200	0.65	-55 to 125
BLM18BB331SN1	330 ±25%	200	0.75	-55 to 125
BLM18BB471SN1	470 ±25%	50	1.00	-55 to 125
BLM18BD121SN1	120 ±25%	200	0.40	-55 to 125
BLM18BD151SN1	150 ±25%	200	0.40	-55 to 125
BLM18BD221SN1	220 ±25%	200	0.45	-55 to 125
BLM18BD331SN1	330 ±25%	200	0.5	-55 to 125
BLM18BD421SN1	420 ±25%	200	0.55	-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
BLM18PG300SN1	30 (Typ.)	1000	0.05	-55 to 125
BLM18PG600SN1	60 (Typ.)	500	0.10	-55 to 125
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

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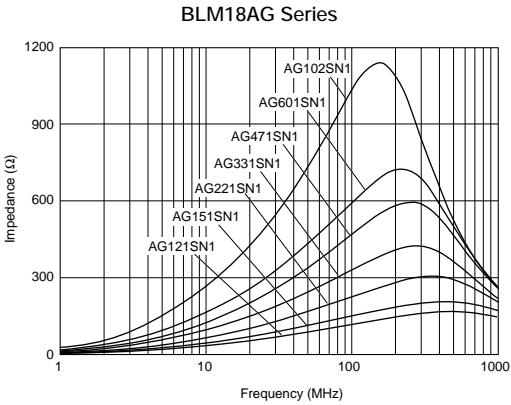
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Part Number	Impedance (at 100MHz) (ohm)	Rated Current (mA)	DC Resistance(max.) (ohm)	Operating Temperature Range (°C)
BLM18RK601SN1	600 ±25%	200	0.60	-55 to 125
BLM18RK102SN1	1000 ±25%	100	0.80	-55 to 125

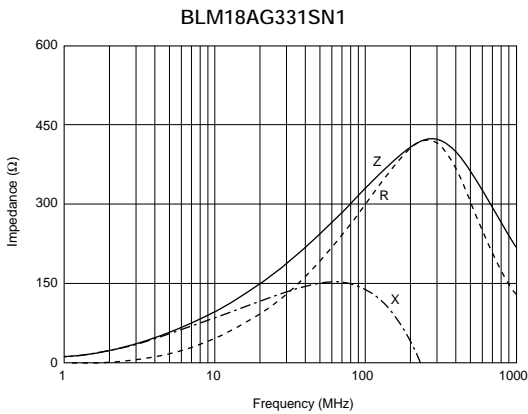
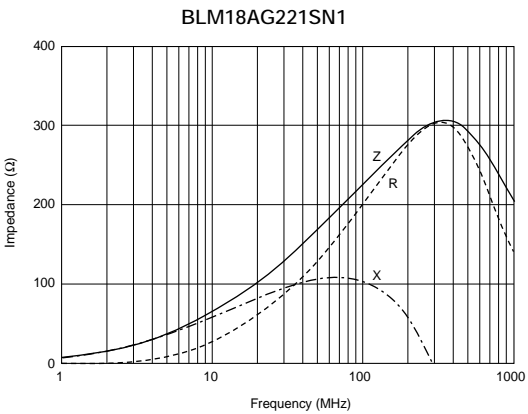
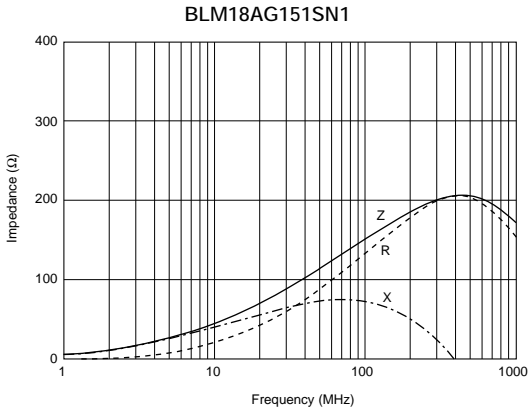
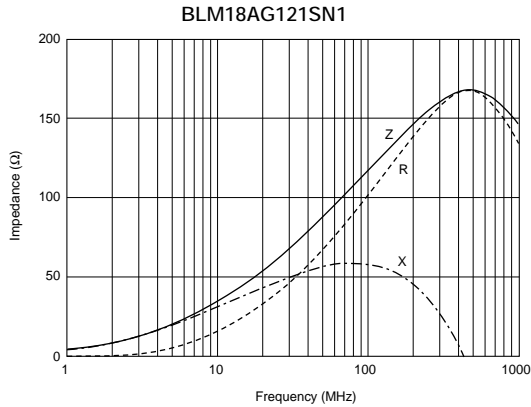
■ Equivalent Circuit




■ Impedance-Frequency (Typical)



■ Impedance-Frequency Characteristics



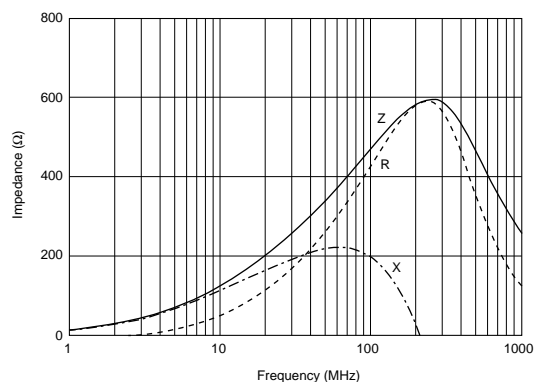
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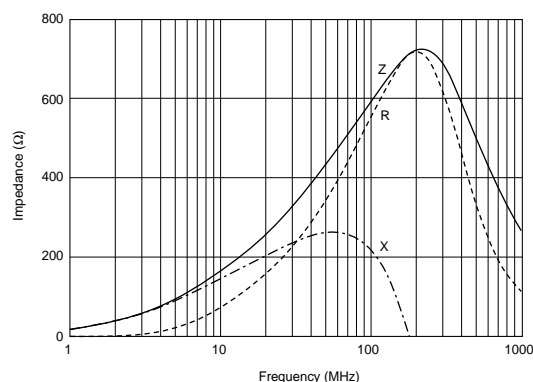
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## ■ Impedance-Frequency Characteristics

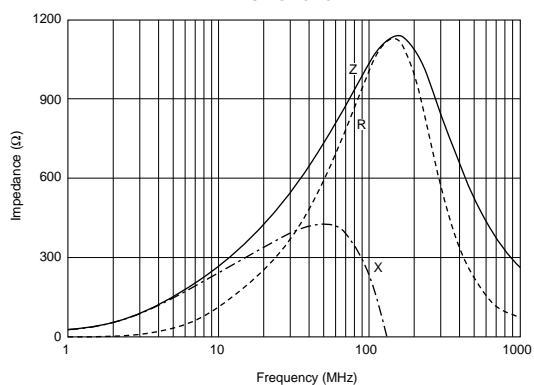
BLM18AG471SN1



BLM18AG601SN1

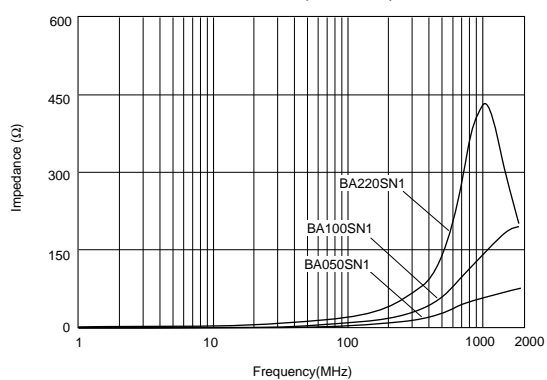


BLM18AG102SN1

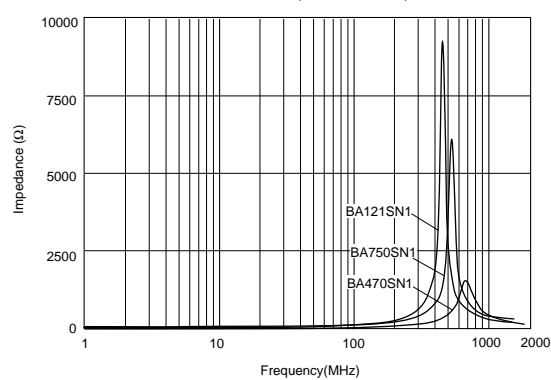


## ■ Impedance-Frequency (Typical)

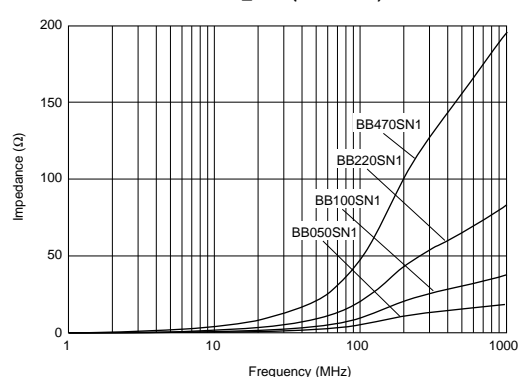
BLM18BA\_SN1(5-22ohm)



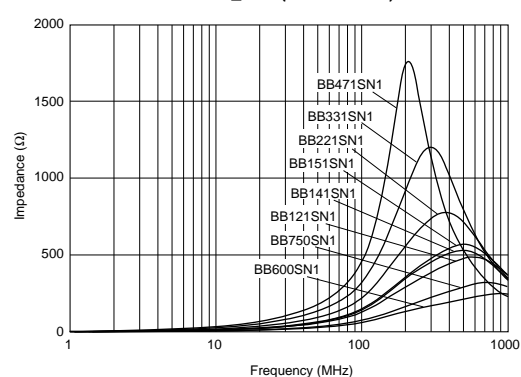
BLM18BA\_SN1(47-120ohm)




BLM18BB\_SN1(5-47ohm)



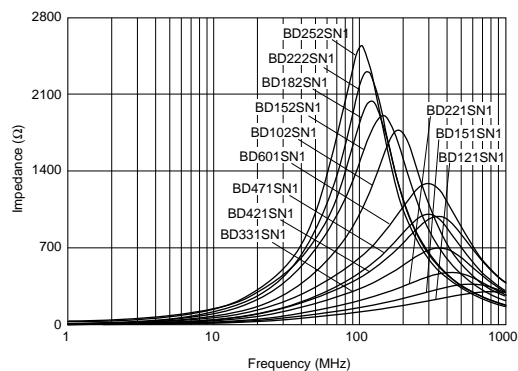
BLM18BB\_SN1(60-470ohm)



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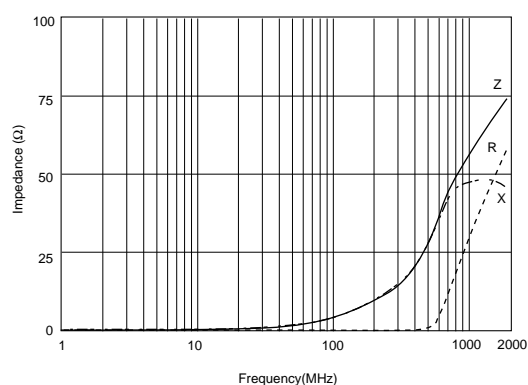
## ■ Impedance-Frequency (Typical)

BLM18BD\_SN1

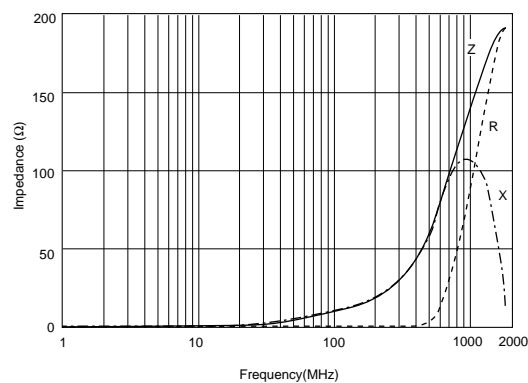


## ■ Impedance-Frequency Characteristics

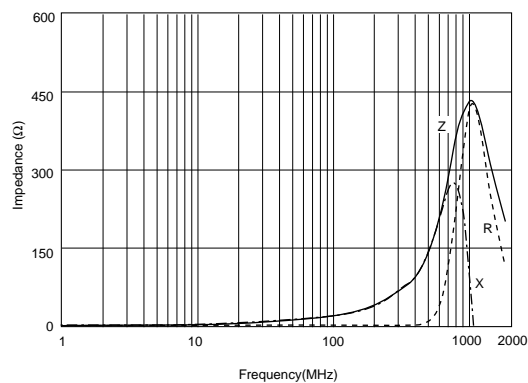
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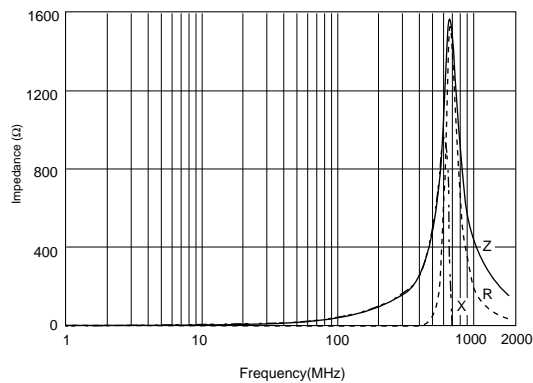
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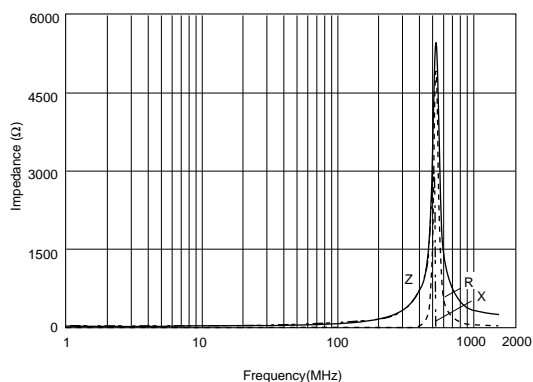
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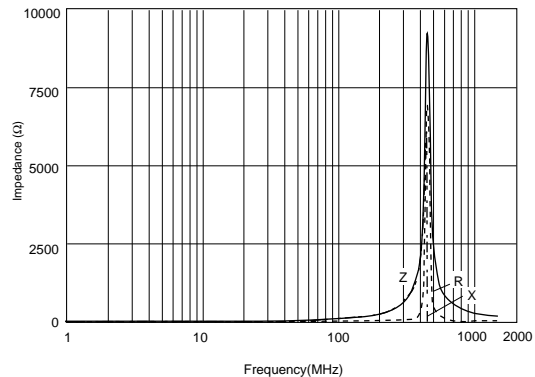
BLM18BA470SN1





BLM18BA750SN1



BLM18BA121SN1



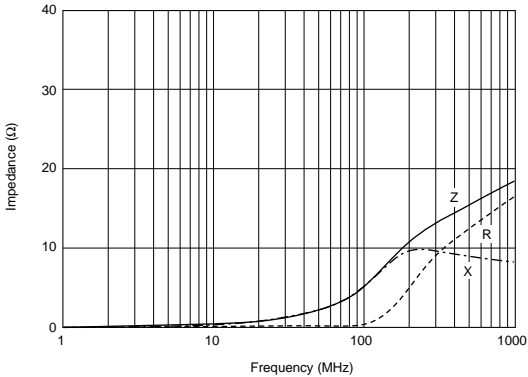
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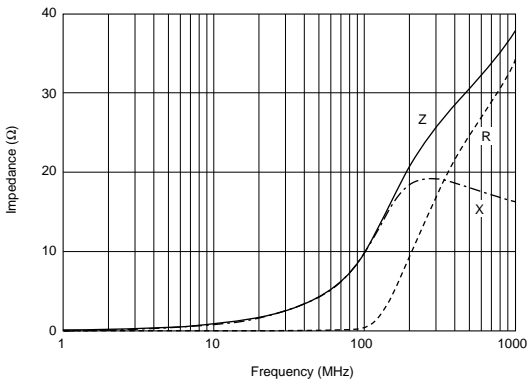
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■ Impedance-Frequency Characteristics

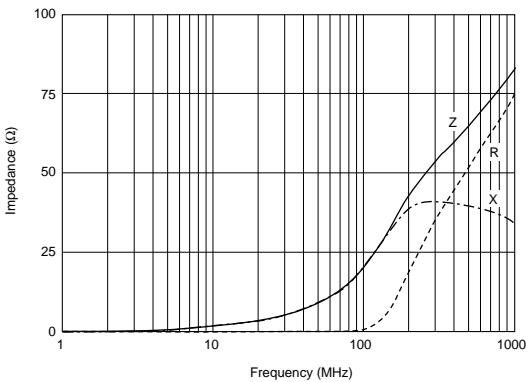
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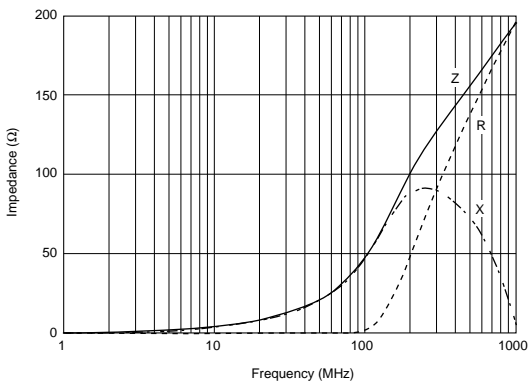
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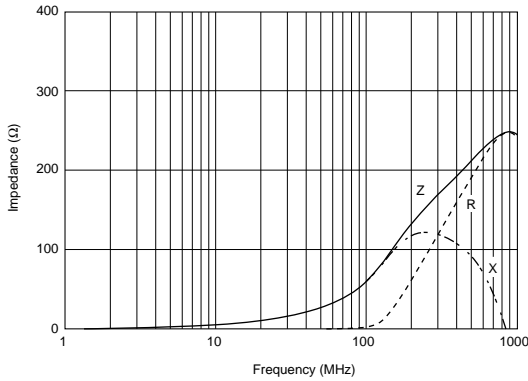
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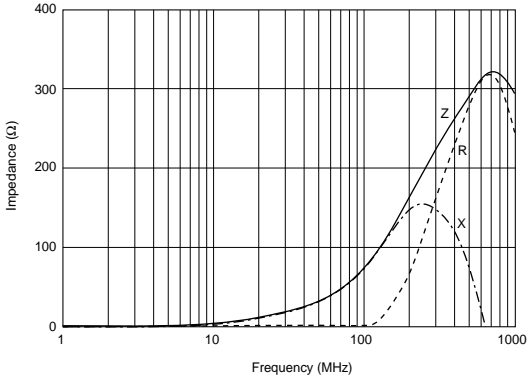
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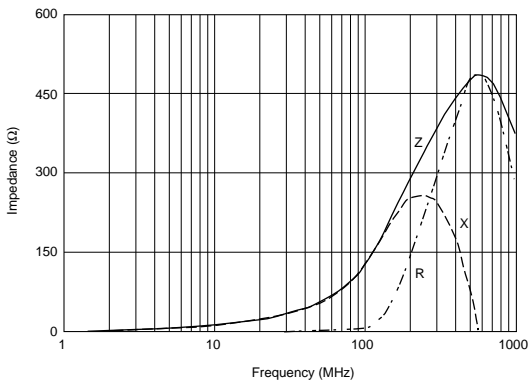
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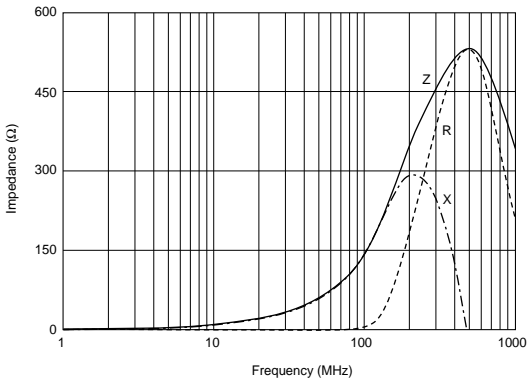
BLM18BB750SN1





BLM18BB121SN1



BLM18BB141SN1

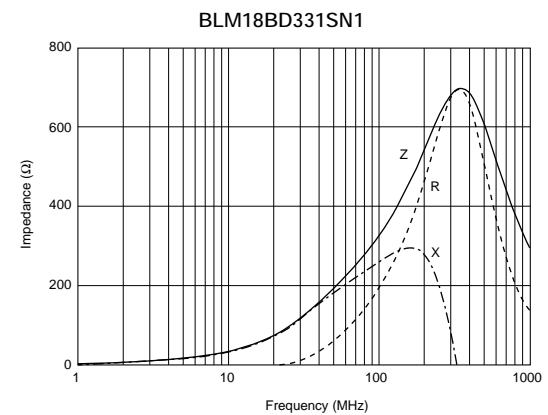
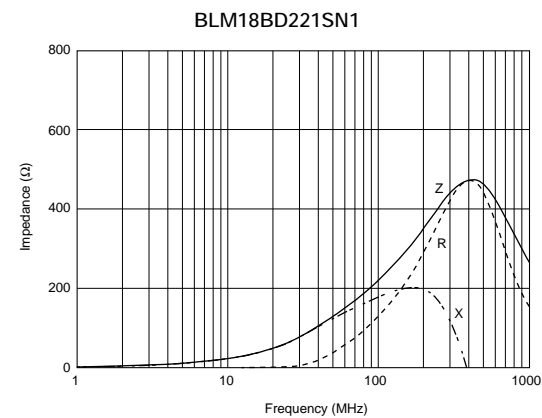
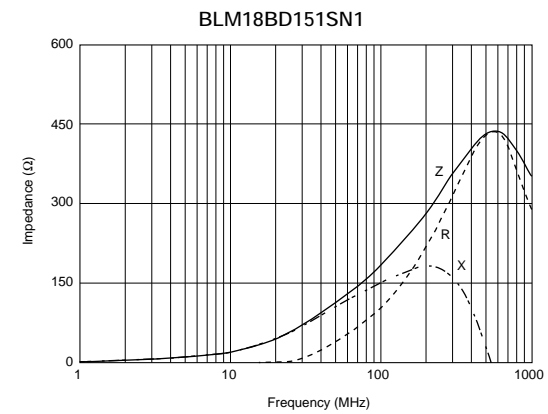
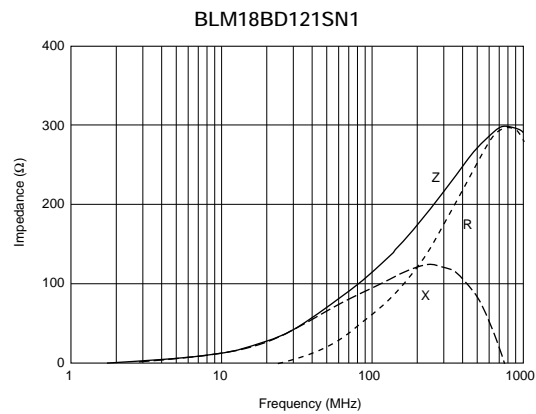
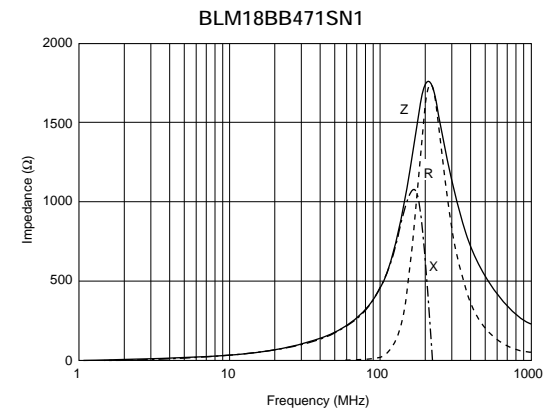
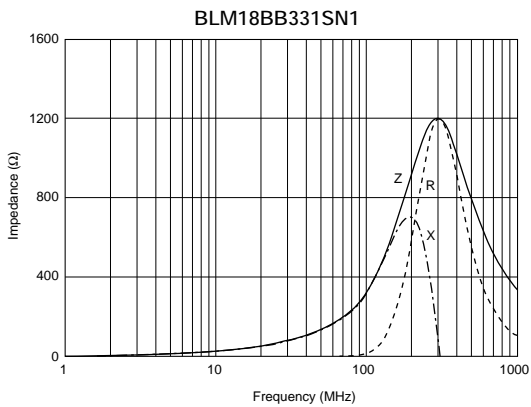
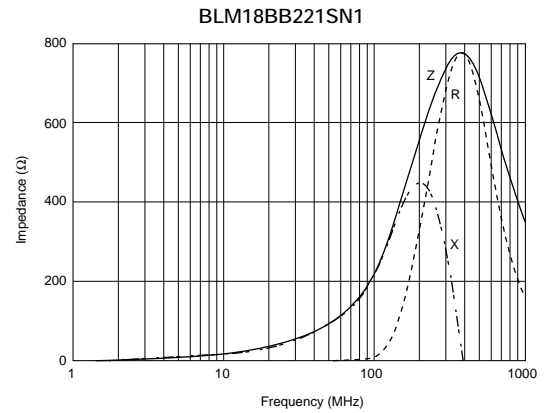
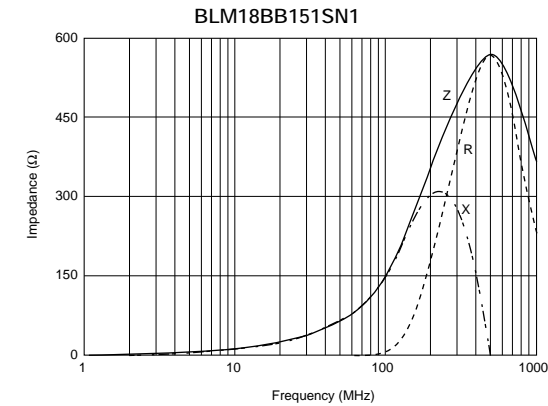



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■ Impedance-Frequency Characteristics

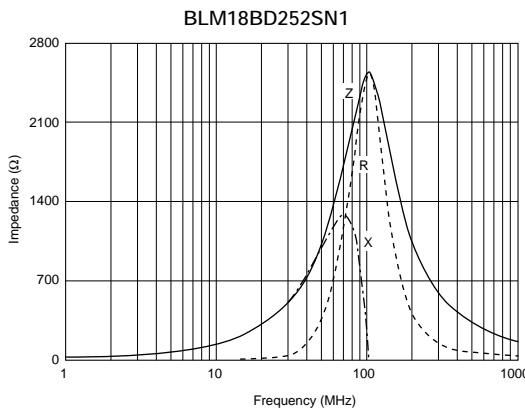
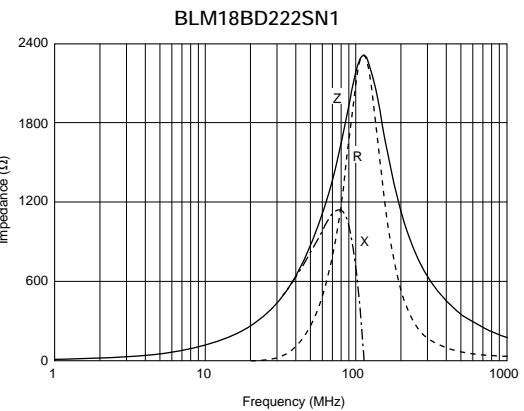
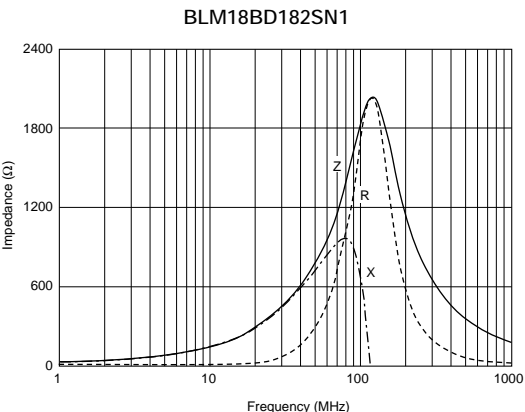
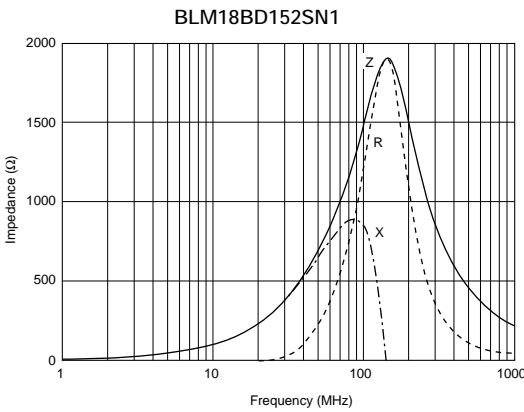
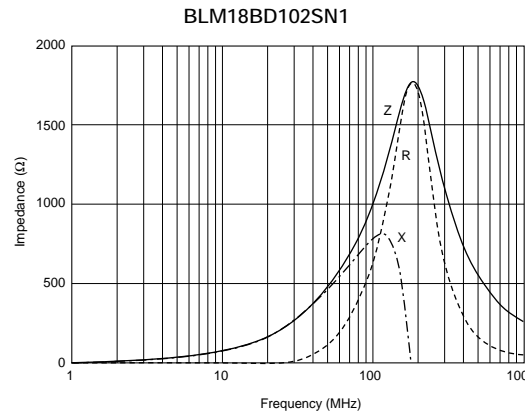
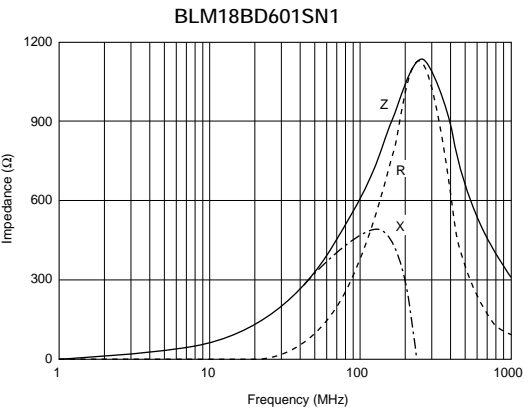
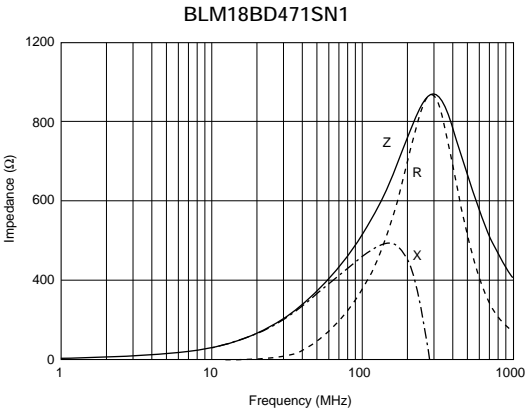
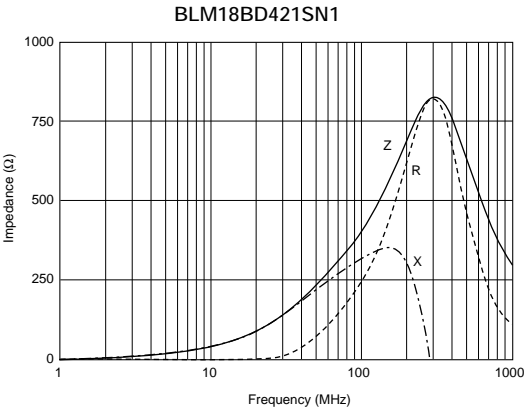
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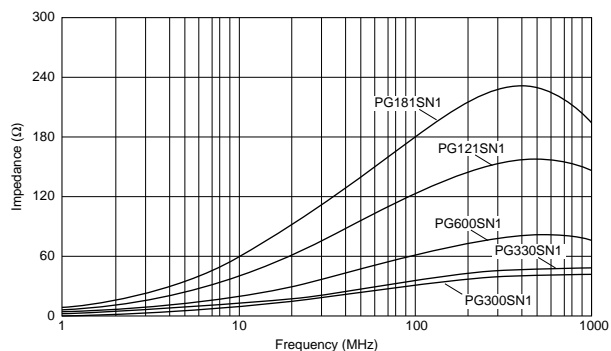
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■ Impedance-Frequency Characteristics



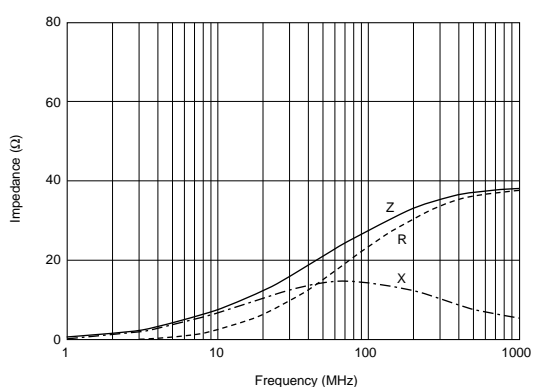
## ■ Impedance-Frequency (Typical)

BLM18P Series

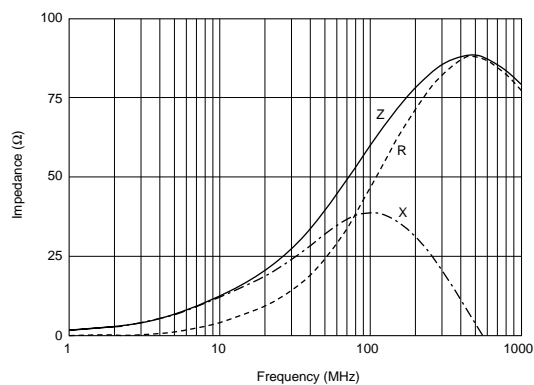


## ■ Impedance-Frequency Characteristics

BLM18PG300SN1

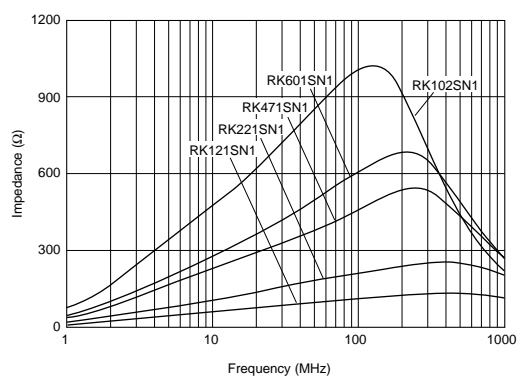


BLM18PG600SN1



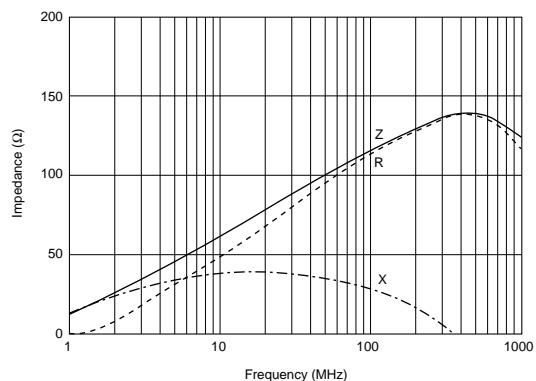
## ■ Impedance-Frequency (Typical)

BLM18R Series

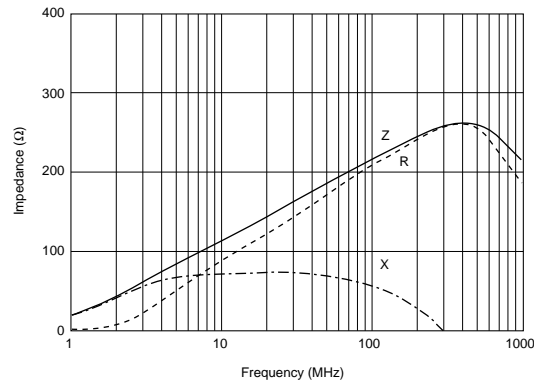


## ■ Impedance-Frequency Characteristics


BLM18RK121SN1



BLM18RK221SN1

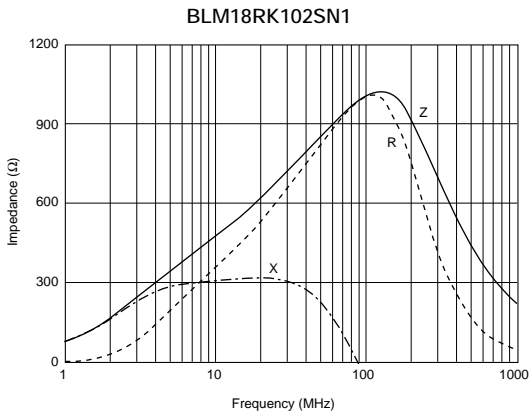
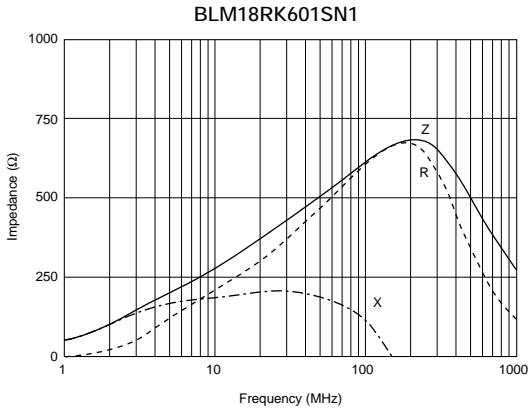
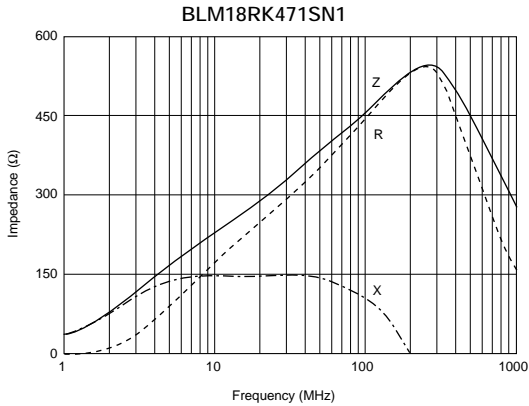




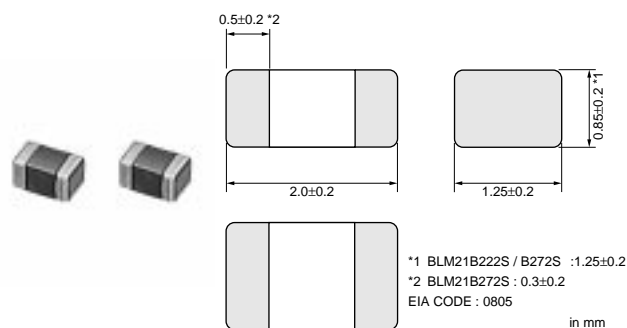
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Impedance-Frequency Characteristics




# BLM21 Series(2012 Size)



Part Number	Impedance (at 100MHz) (ohm)	Rated Current (mA)	DC Resistance(max.) (ohm)	Operating Temperature Range (°C)
BLM21AG121SN1	120 $\pm$ 25%	200	0.15	-55 to 125
BLM21AG151SN1	150 $\pm$ 25%	200	0.15	-55 to 125
BLM21AG221SN1	220 $\pm$ 25%	200	0.20	-55 to 125
BLM21AG331SN1	330 $\pm$ 25%	200	0.25	-55 to 125
BLM21AG471SN1	470 $\pm$ 25%	200	0.25	-55 to 125
BLM21AG601SN1	600 $\pm$ 25%	200	0.30	-55 to 125
BLM21AG102SN1	1000 $\pm$ 25%	200	0.45	-55 to 125
BLM21AH102SN1	1000 $\pm$ 25%	200	0.45	-55 to 85
BLM21AJ401SN1	400 $\pm$ 25%	200	0.85	-55 to 125
BLM21AJ601SN1	600 $\pm$ 25%	200	1.10	-55 to 125
BLM21BB050SN1	5 $\pm$ 25%	500	0.07	-55 to 125
BLM21BB600SN1	60 $\pm$ 25%	200	0.20	-55 to 125
BLM21BB750SN1	75 $\pm$ 25%	200	0.25	-55 to 125
BLM21BB121SN1	120 $\pm$ 25%	200	0.25	-55 to 125
BLM21BB151SN1	150 $\pm$ 25%	200	0.25	-55 to 125
BLM21BB201SN1	200 $\pm$ 25%	200	0.35	-55 to 125
BLM21BB221SN1	220 $\pm$ 25%	200	0.35	-55 to 125
BLM21BB331SN1	330 $\pm$ 25%	200	0.40	-55 to 125
BLM21BB471SN1	470 $\pm$ 25%	200	0.45	-55 to 125
BLM21BD121SN1	120 $\pm$ 25%	200	0.25	-55 to 125
BLM21BD151SN1	150 $\pm$ 25%	200	0.25	-55 to 125
BLM21BD221SN1	220 $\pm$ 25%	200	0.25	-55 to 125
BLM21BD331SN1	330 $\pm$ 25%	200	0.30	-55 to 125
BLM21BD421SN1	420 $\pm$ 25%	200	0.30	-55 to 125
BLM21BD471SN1	470 $\pm$ 25%	200	0.35	-55 to 125
BLM21BD601SN1	600 $\pm$ 25%	200	0.35	-55 to 125
BLM21BD751SN1	750 $\pm$ 25%	200	0.40	-55 to 125
BLM21BD102SN1	1000 $\pm$ 25%	200	0.40	-55 to 125
BLM21BD152SN1	1500 $\pm$ 25%	200	0.45	-55 to 125
BLM21BD182SN1	1800 $\pm$ 25%	200	0.50	-55 to 125
BLM21BD222TN1	2200 $\pm$ 25%	200	0.60	-55 to 125
BLM21BD222SN1	2250 (Typ.)	200	0.60	-55 to 125
BLM21BD272SN1	2700 $\pm$ 25%	200	0.80	-55 to 125
BLM21PG220SN1	22 (Typ.)	6000	0.01	-55 to 125
BLM21PG300SN1	30 (Typ.)	3000	0.015	-55 to 125
BLM21PG600SN1	60 (Typ.)	3000	0.025	-55 to 125
BLM21PG221SN1	220 (Typ.)	2000	0.050	-55 to 125
BLM21PG331SN1	330 (Typ.)	1500	0.09	-55 to 125
BLM21RK121SN1	120 $\pm$ 25%	200	0.15	-55 to 125
BLM21RK221SN1	220 $\pm$ 25%	200	0.20	-55 to 125
BLM21RK471SN1	470 $\pm$ 25%	200	0.25	-55 to 125
BLM21RK601SN1	600 $\pm$ 25%	200	0.30	-55 to 125

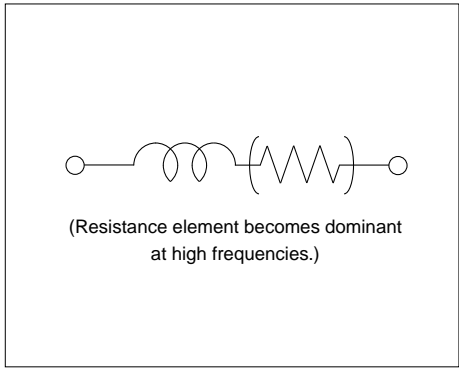
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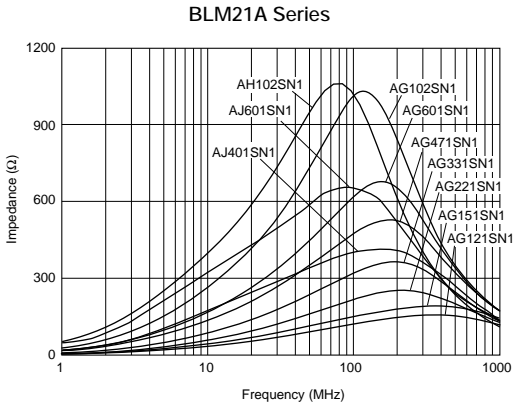
Part Number	Impedance (at 100MHz) (ohm)	Rated Current (mA)	DC Resistance(max.) (ohm)	Operating Temperature Range (°C)
BLM21RK102SN1	1000 ±25%	200	0.50	-55 to 125

BLM21P series require derating above 85°C ambient. Please contact us for details.

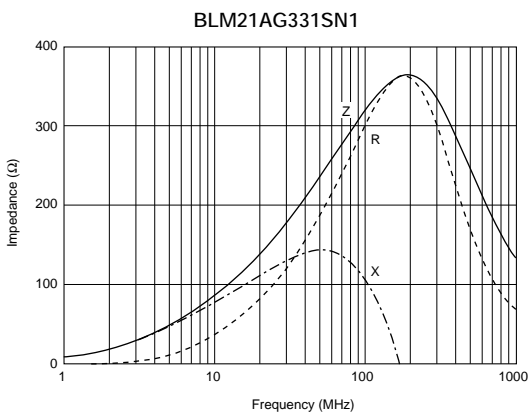
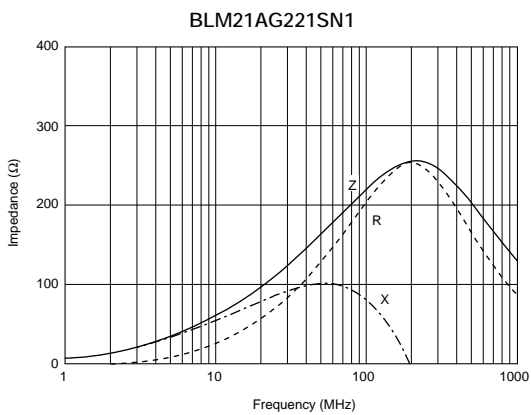
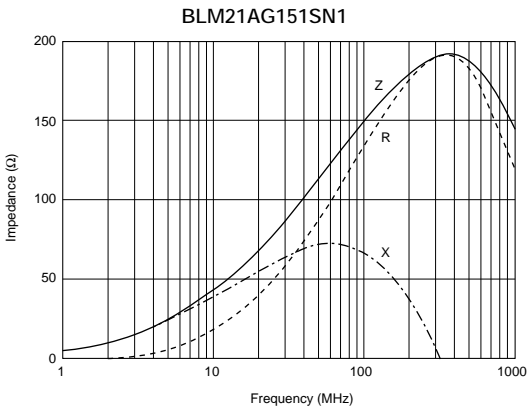
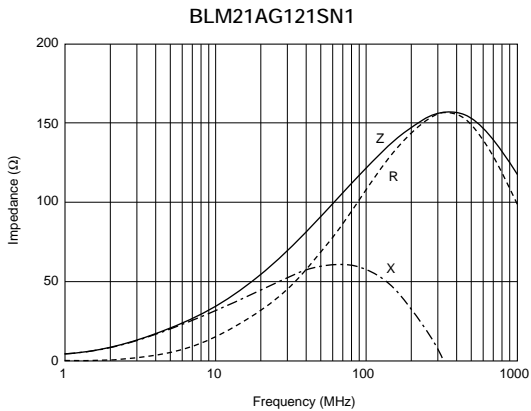
Equivalent Circuit




Impedance-Frequency (Typical)



Impedance-Frequency Characteristics

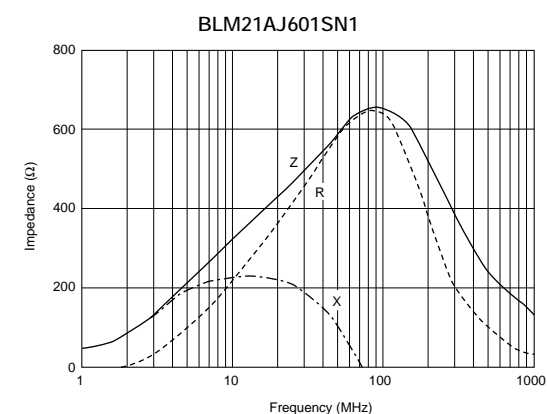
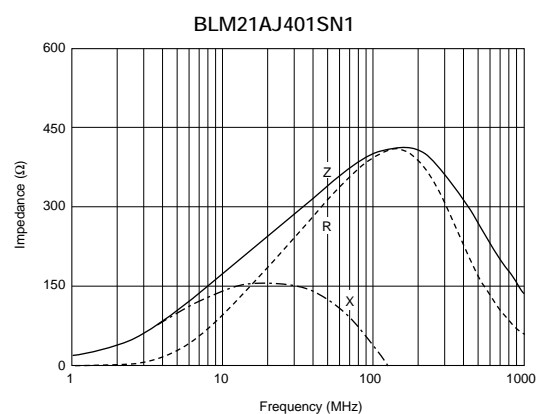
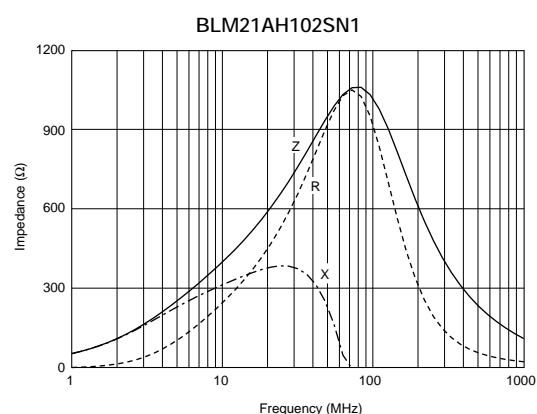
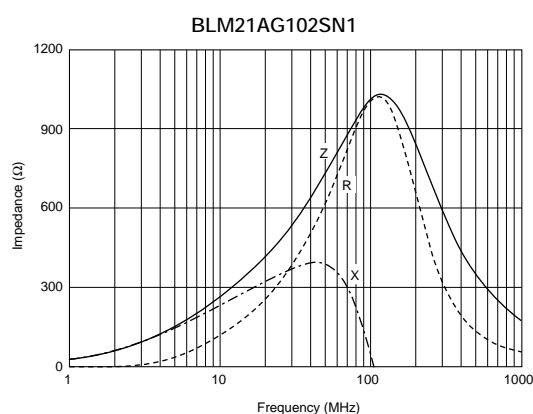
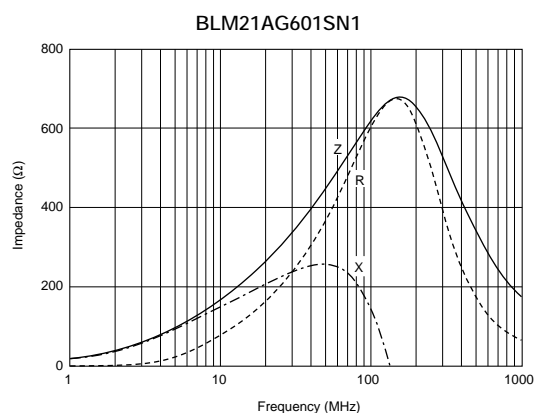
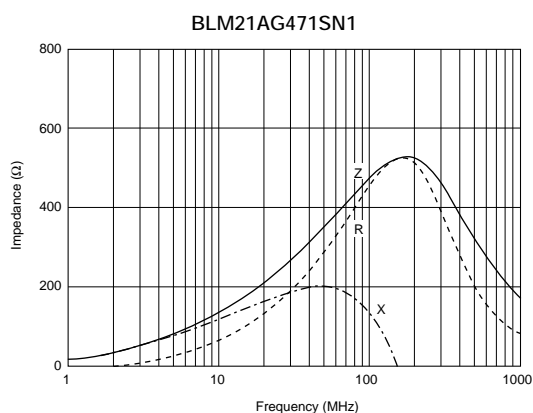


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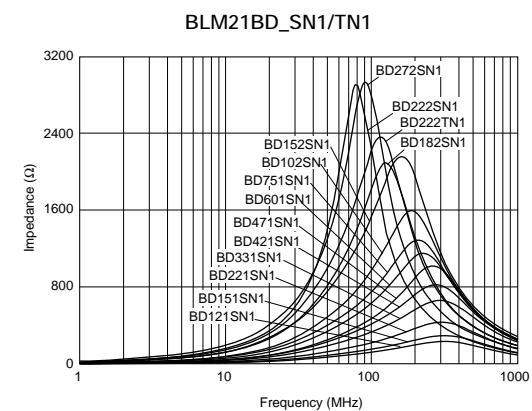
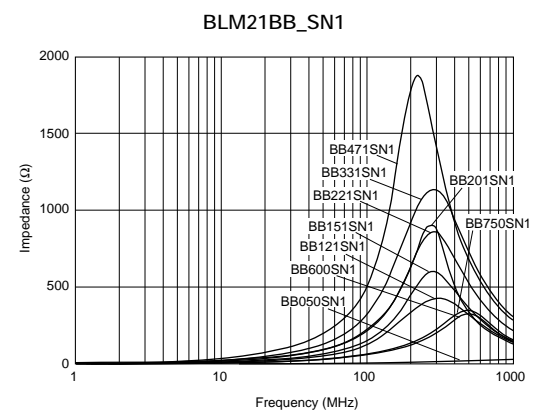
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## ■ Impedance-Frequency Characteristics

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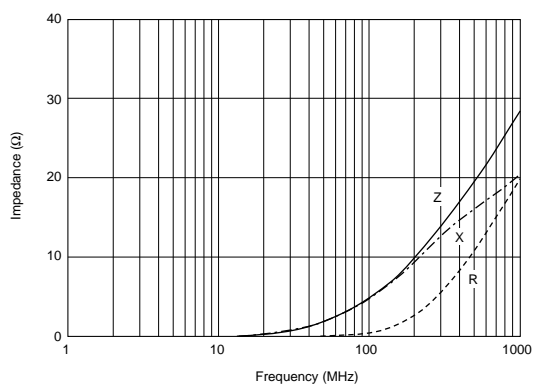


## ■ Impedance-Frequency (Typical)

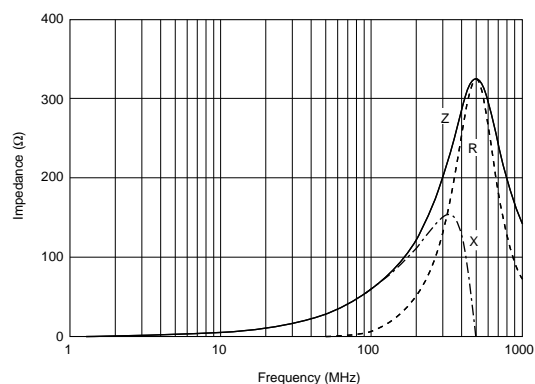


# Impedance-Frequency Characteristics

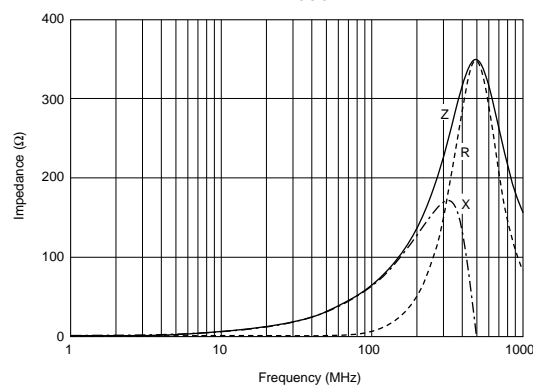
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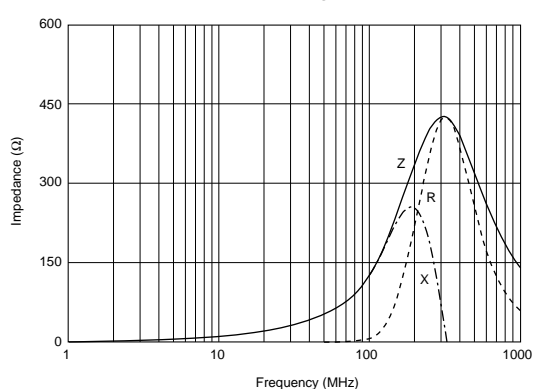
BLM21BB600SN1



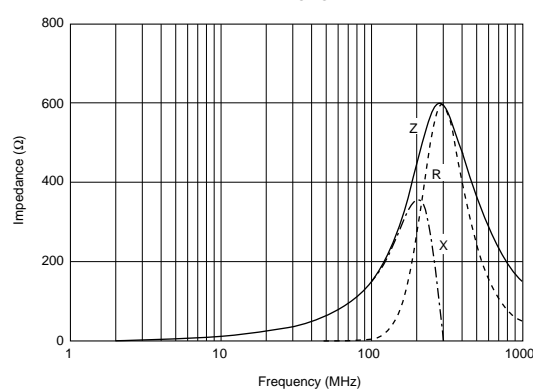
BLM21BB750SN1



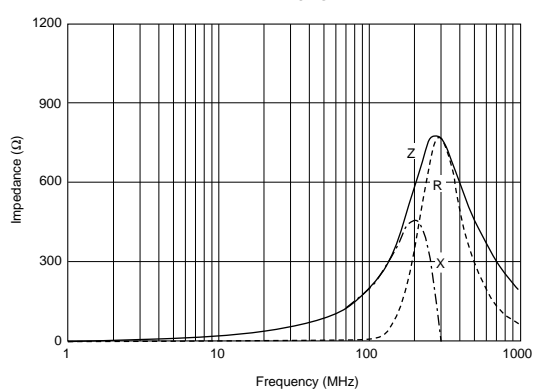
BLM21BB121SN1



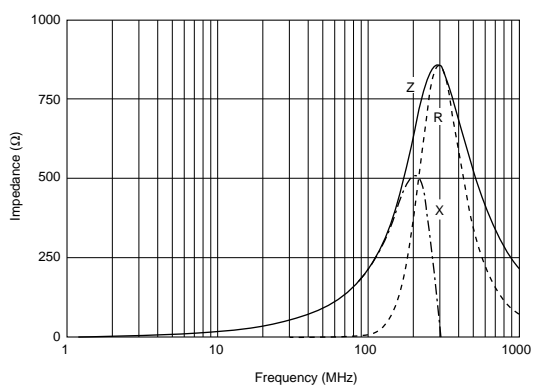
BLM21BB151SN1



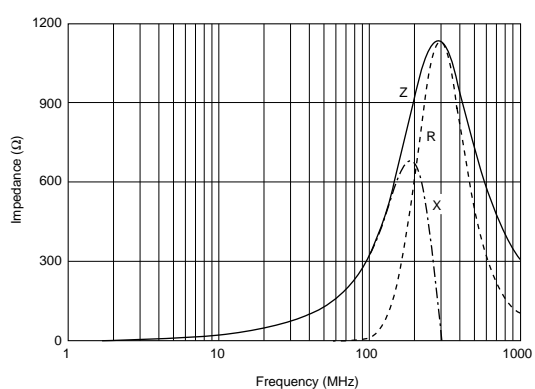
BLM21BB201SN1




BLM21BB221SN1



BLM21BB331SN1

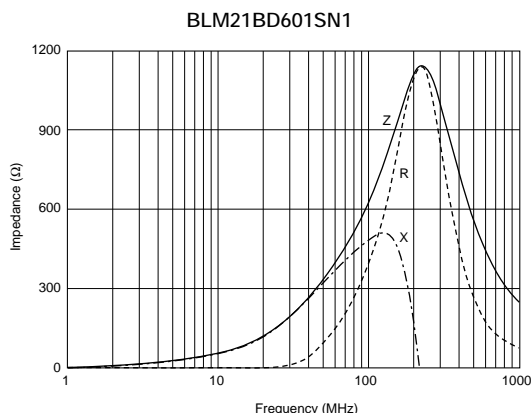
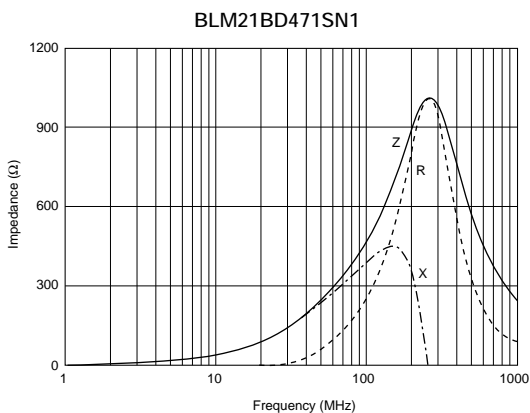
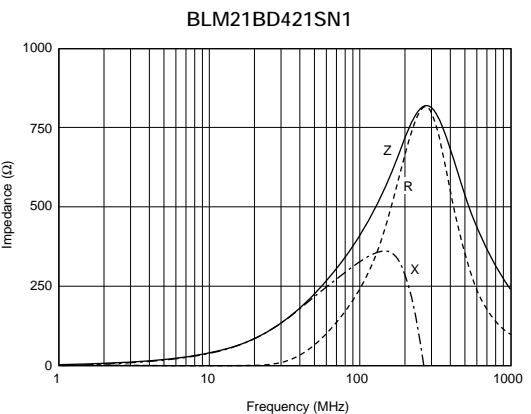
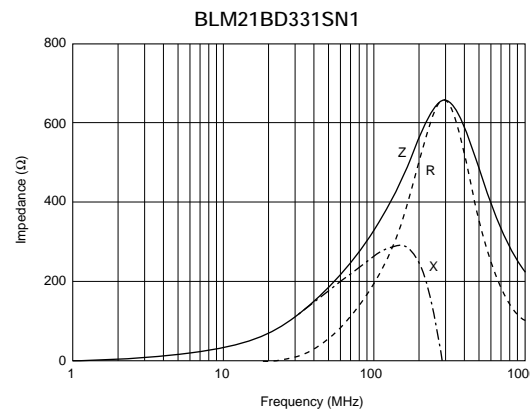
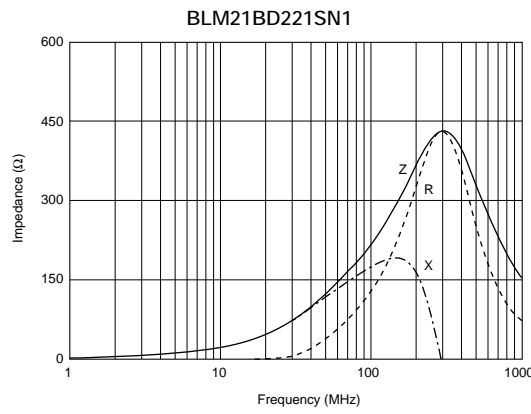
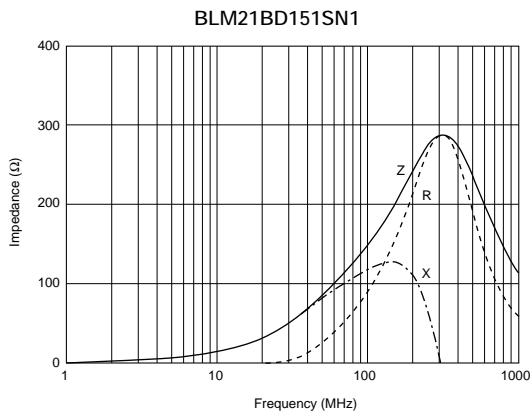
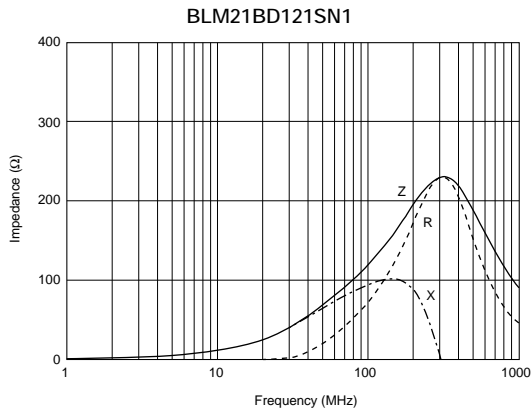
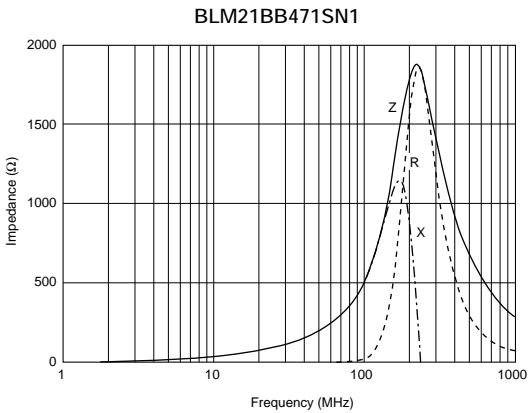


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■ Impedance-Frequency Characteristics

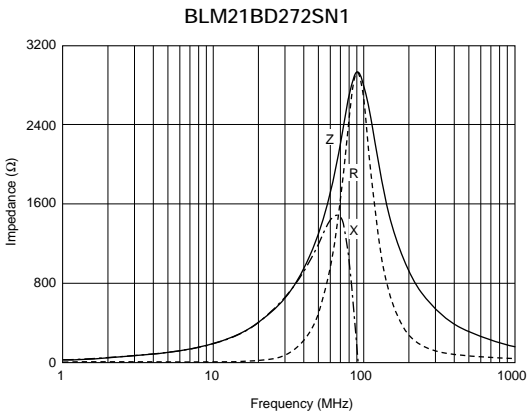
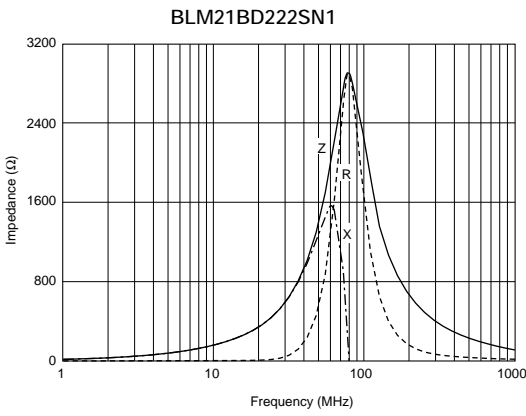
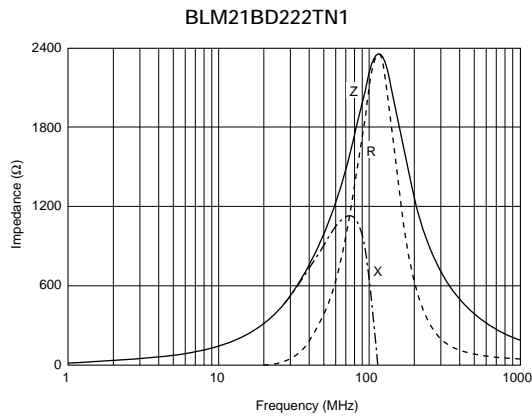
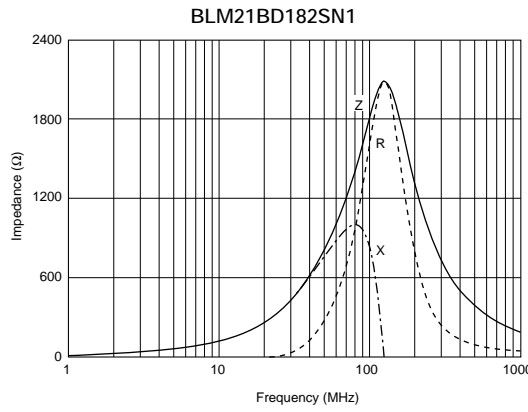
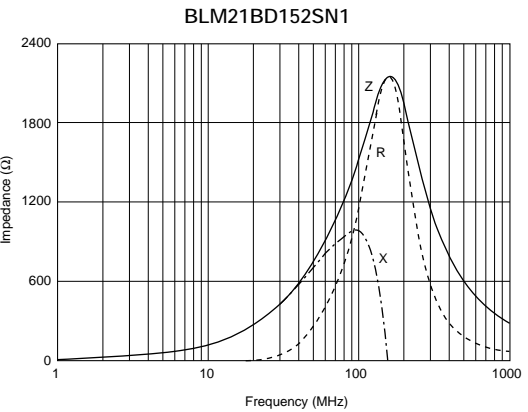
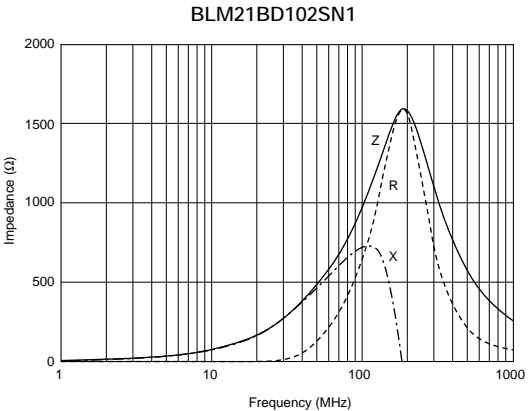
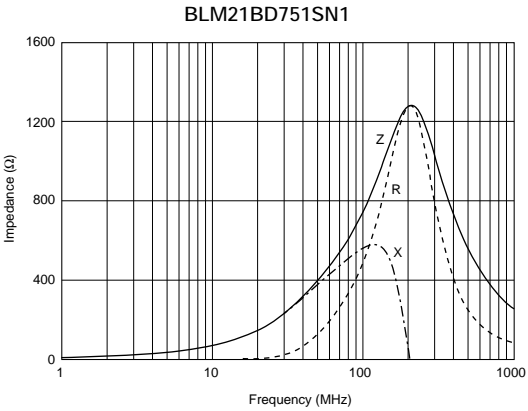
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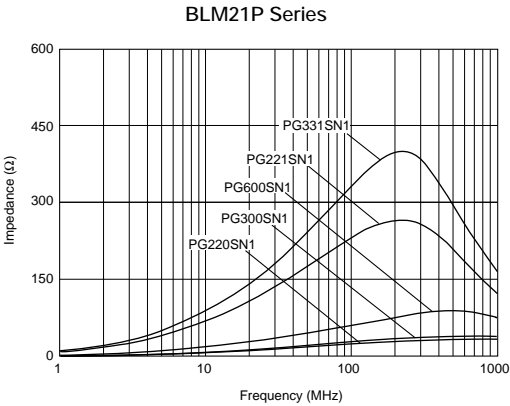
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■ Impedance-Frequency Characteristics

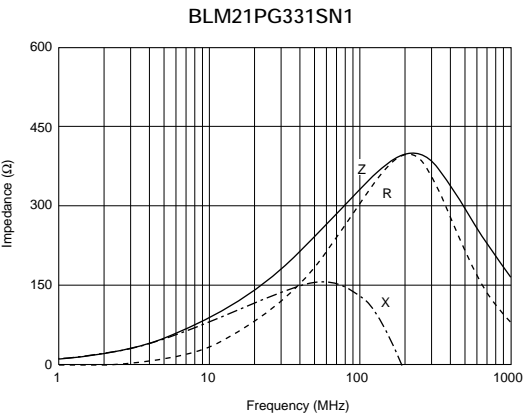
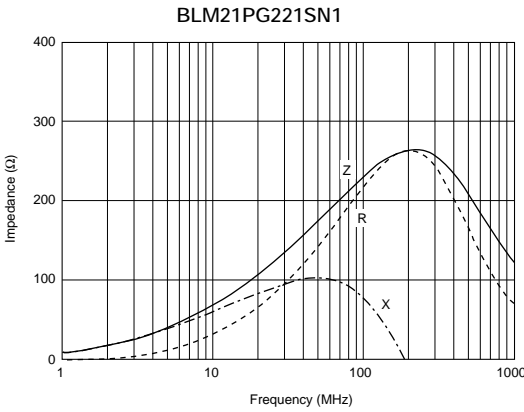
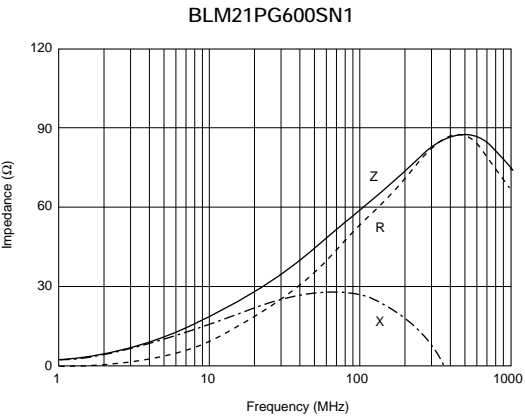
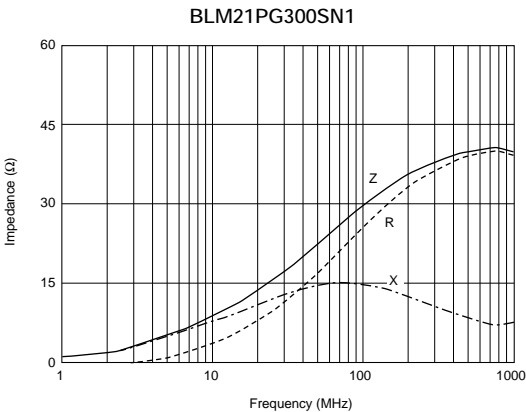
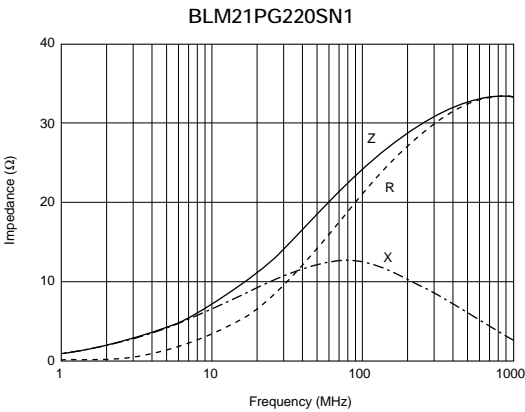


■ Impedance-Frequency (Typical)

1



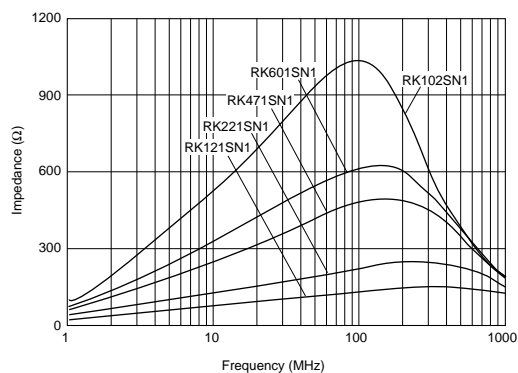
■ Impedance-Frequency Characteristics





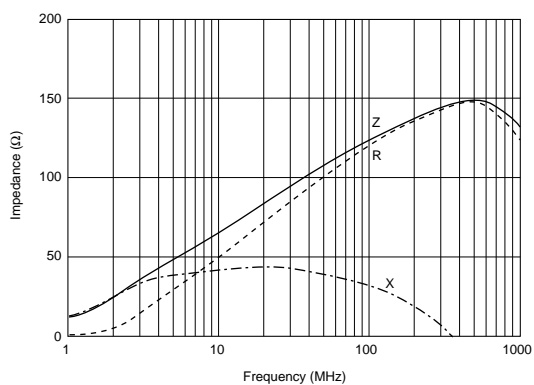
# 1 ■ Impedance-Frequency (Typical)

BLM21R Series

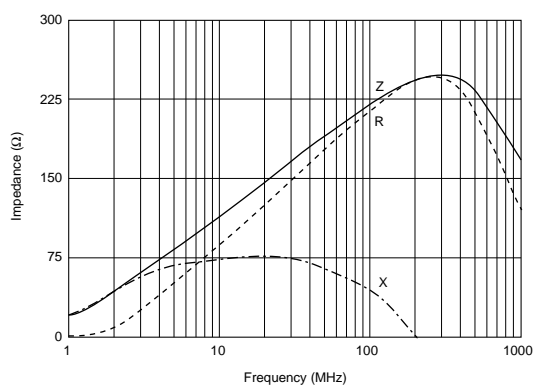


## ■ Impedance-Frequency Characteristics

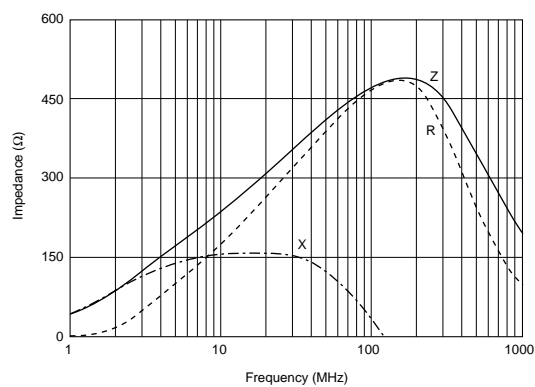
BLM21RK121SN1



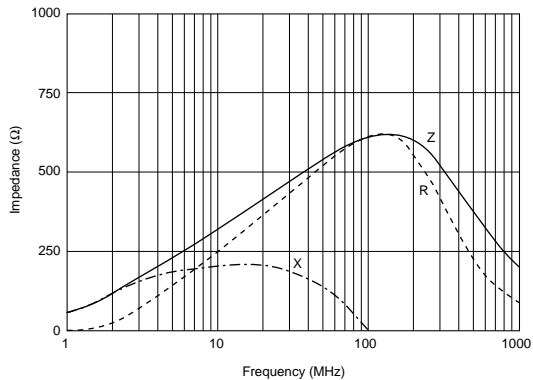
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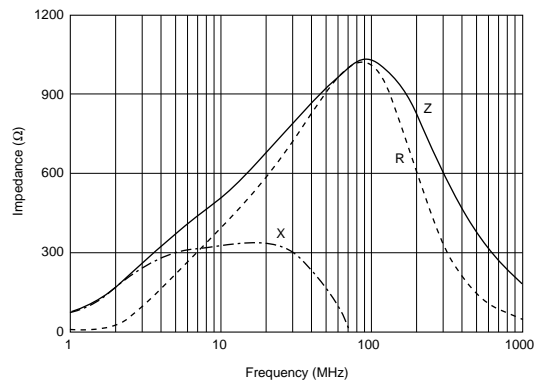
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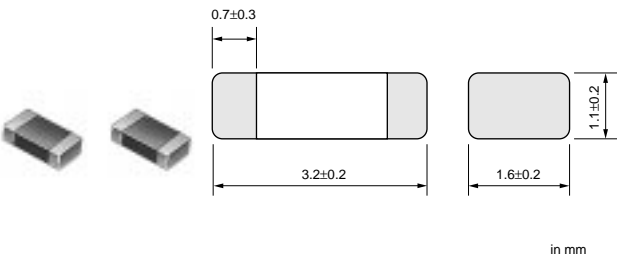
BLM21RK601SN1



BLM21RK102SN1



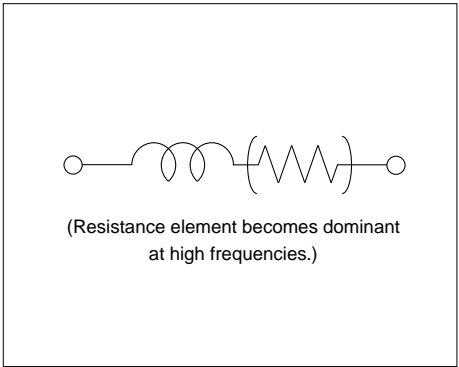
BLM31 Series(3216 Size)



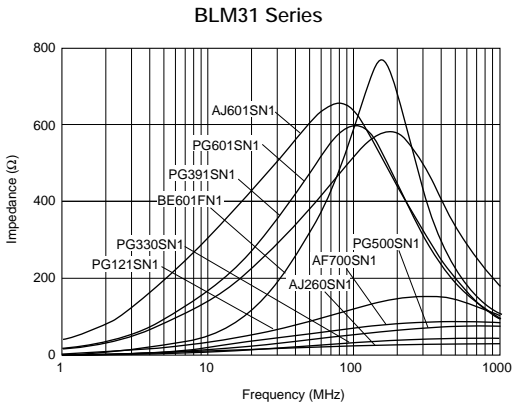
Part Number	Impedance (at 100MHz) (ohm)	Rated Current (mA)	DC Resistance(max.) (ohm)	Operating Temperature Range (°C)
BLM31AF700SN1	70 ±25%	200	0.15	-55 to 125
BLM31AJ260SN1	26 ±25%	500	0.05	-55 to 125
BLM31AJ601SN1	600 ±25%	200	0.90	-55 to 125
BLM31BE601FN1	600 ±25%	300	0.35	-55 to 125
BLM31PG330SN1	33 (Typ.)	6000	0.01	-55 to 125
BLM31PG500SN1	50 (Typ.)	3000	0.025	-55 to 125
BLM31PG121SN1	120 (Typ.)	3000	0.025	-55 to 125
BLM31PG391SN1	390 (Typ.)	2000	0.05	-55 to 125
BLM31PG601SN1	600 (Typ.)	1500	0.09	-55 to 125

BLM31P series require derating above 85°C ambient. Please contact us for details.

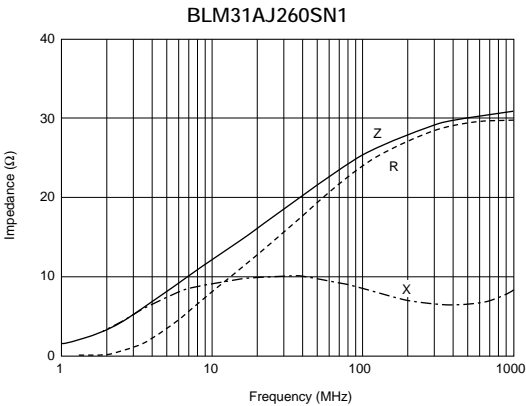
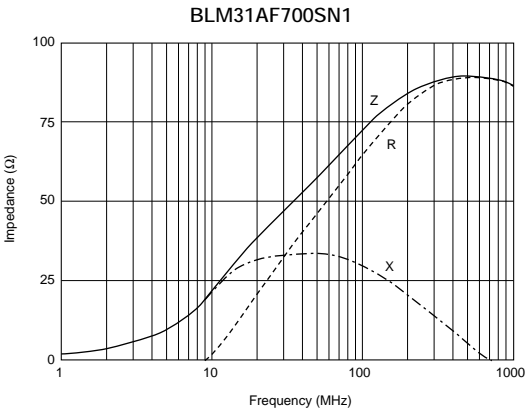
Equivalent Cirucit




Impedance-Frequency (Typical)



Impedance-Frequency Characteristics

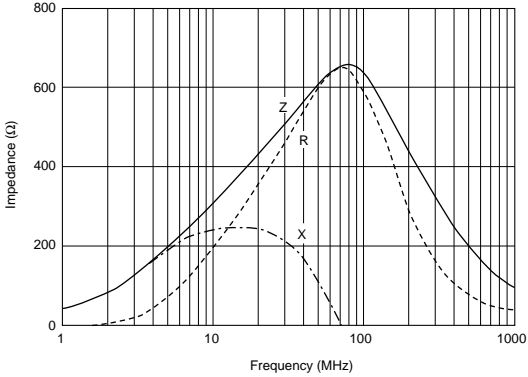


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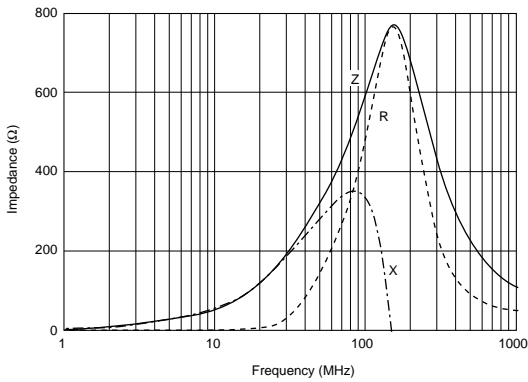
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1 ■ Impedance-Frequency Characteristics

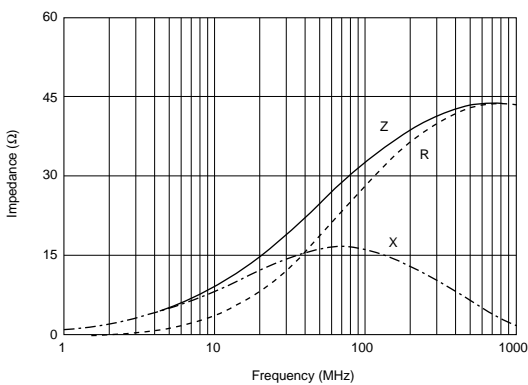
BLM31AJ601SN1



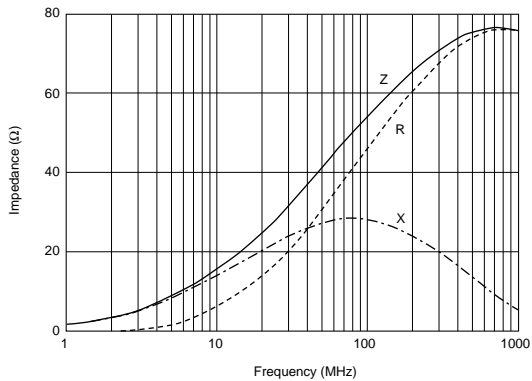
BLM31BE601SN1



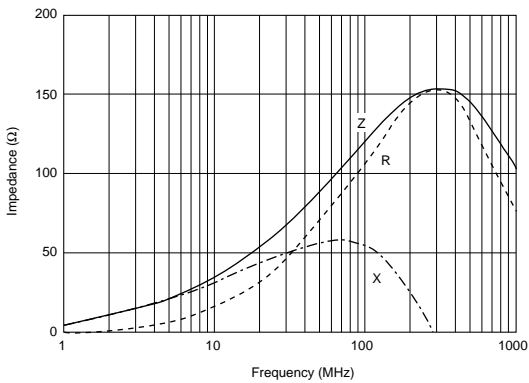
BLM31PG330SN1



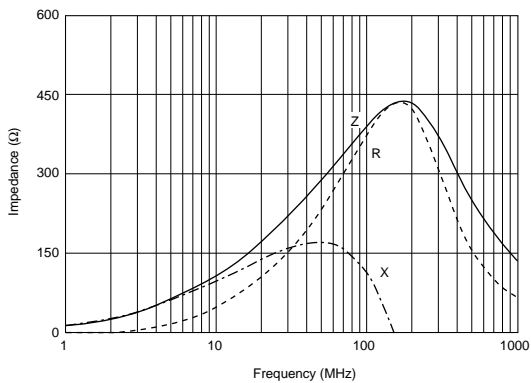
BLM31PG500SN1



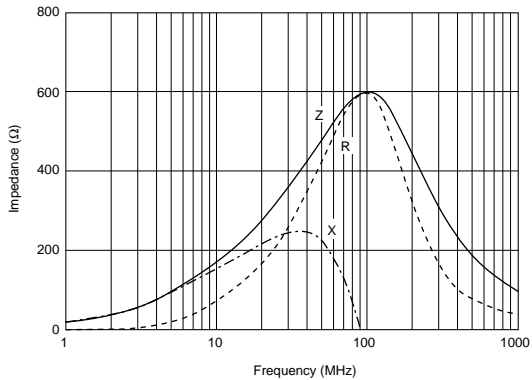
BLM31PG121SN1



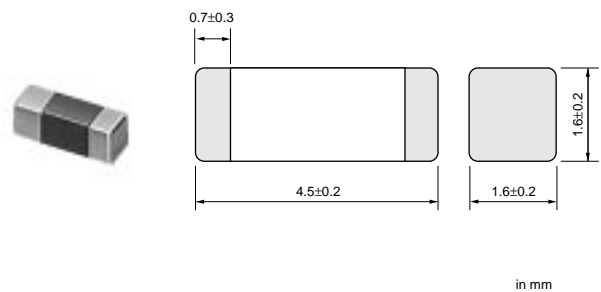
BLM31PG391SN1



BLM31PG601SN1



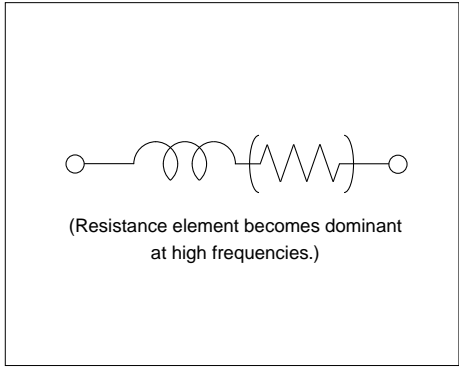
BLM41 Series(4516 Size)



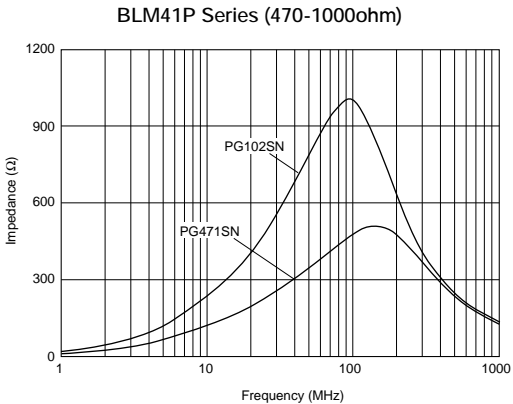
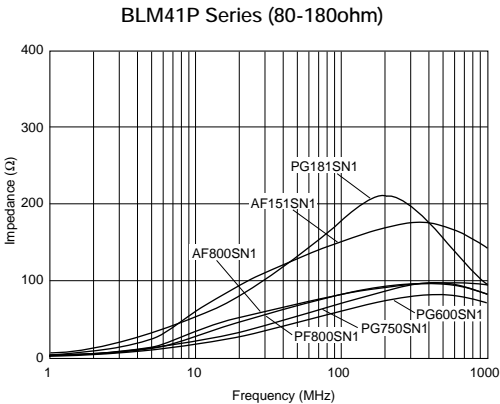
Part Number	Impedance (at 100MHz) (ohm)	Rated Current (mA)	DC Resistance(max.) (ohm)	Operating Temperature Range (°C)
BLM41AF800SN1	80 ±25%	500	0.10	-55 to 125
BLM41AF151SN1	150 ±25%	200	0.50	-55 to 125
BLM41PF800SN1	80 (Typ.)	1000	0.10	-55 to 125
BLM41PG600SN1	60 (Typ.)	6000	0.01	-55 to 125
BLM41PG750SN1	75 (Typ.)	3000	0.025	-55 to 125
BLM41PG181SN1	180 (Typ.)	3000	0.025	-55 to 125
BLM41PG471SN1	470 (Typ.)	2000	0.05	-55 to 125
BLM41PG102SN1	1000 (Typ.)	1500	0.09	-55 to 125

BLM41P series require derating above 85°C ambient. Please contact us for details.

Equivalent Cirucit

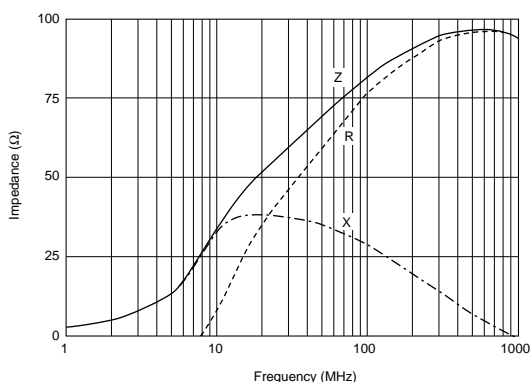


Impedance-Frequency (Typical)

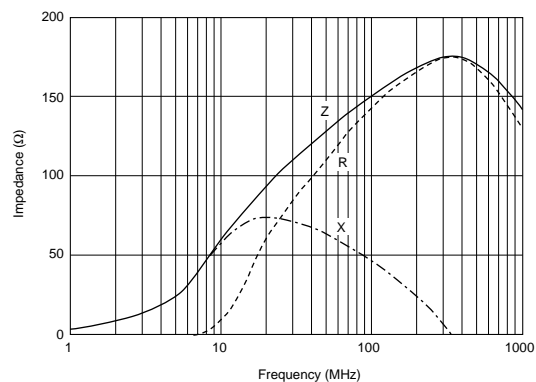


# Impedance-Frequency Characteristics

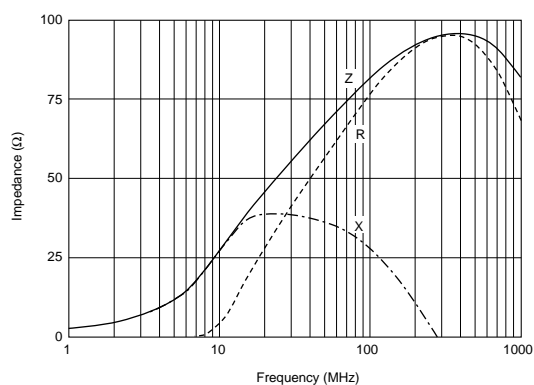
BLM41AF800SN1



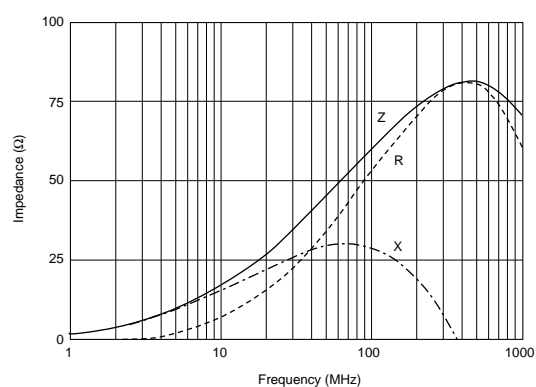
BLM41AF151SN1



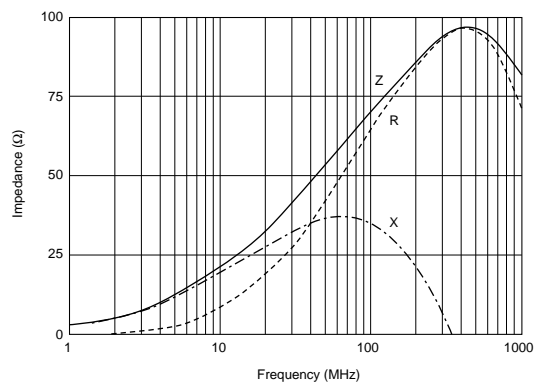
BLM41PF800SN1



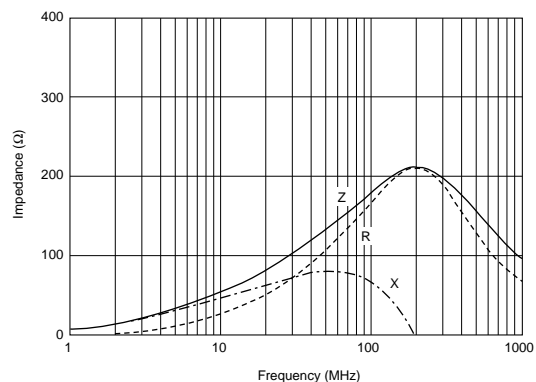
BLM41PG600SN1



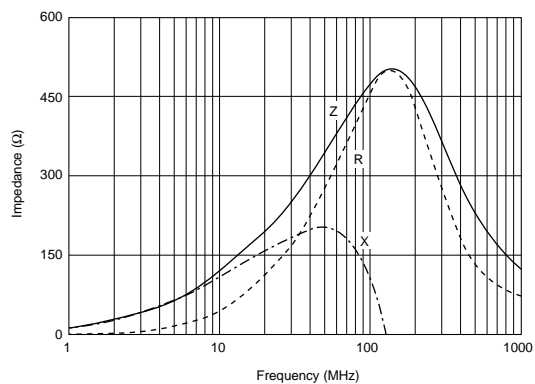
BLM41PG750SN1



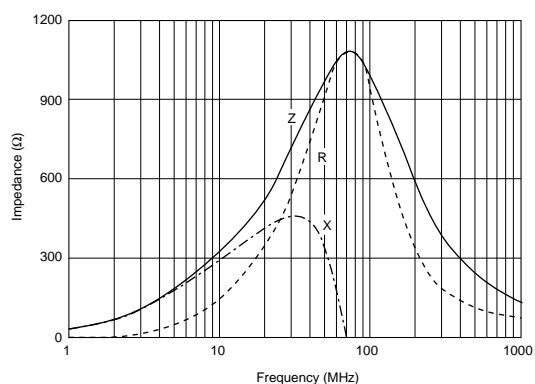
BLM41PG181SN1




BLM41PG471SN1



BLM41PG102SN1

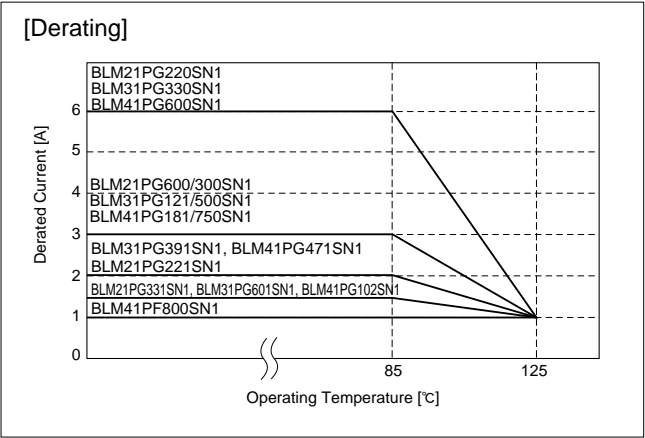


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■ Notice (Rating)

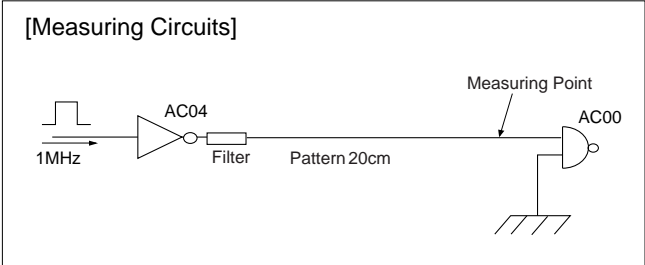
When the BLM□□P series is for Large-current used in operating temperatures exceeding + 85℃, derating of current is necessary. Please apply the derating curve shown below according to the operating temperature.



1

Noise Suppression Effect of BLM\_R Series

■Waveform Distortion Suppressing  
Performance of BLM□□R Series



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.			

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**2. Please contact our sales representatives or product engineers before using our products listed in this catalog for the applications listed below which require especially high reliability for the prevention of defects which might directly cause damage to the third party's life, body or property, or when intending to use one of our products for other applications than specified in this catalog.**

- ① Aircraft equipment
- ② Aerospace equipment
- ③ Undersea equipment
- ④ Power plant equipment
- ⑤ Medical equipment
- ⑥ Transportation equipment (vehicles, trains, ships, etc.)
- ⑦ Traffic signal equipment
- ⑧ Disaster prevention / crime prevention equipment
- ⑨ Data-processing equipment
- ⑩ Application of similar complexity and/or reliability requirements to the applications listed in the above

**3. Product specifications in this catalog are as of April 2001. They are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before your ordering. If there are any questions, please contact our sales representatives or product engineers.****4. The parts numbers and specifications listed in this catalog are for information only. You are requested to approve our product specification or to transact the approval sheet for product specification, before your ordering.****5. Please note that unless otherwise specified, we shall assume no responsibility whatsoever for any conflict or dispute that may occur in connection with the effect of our and/or third party's intellectual property rights and other related rights in consideration of your using our products and/or information described or contained in our catalogs. In this connection, no representation shall be made to the effect that any third parties are authorized to use the rights mentioned above under licenses without our consent.****6. None of ozone depleting substances (ODS) under the Montreal Protocol is used in manufacturing process of us.**

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**Head Office**

2-26-10, Tenjin Nagaokakyo-shi, Kyoto 617-8555, Japan Phone:81-75-951-9111

**International Division**

3-29-12, Shibuya, Shibuya-ku, Tokyo 150-0002, Japan  
Phone:81-3-5469-6123 Fax:81-3-5469-6155 E-mail:intl@murata.co.jp