

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



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

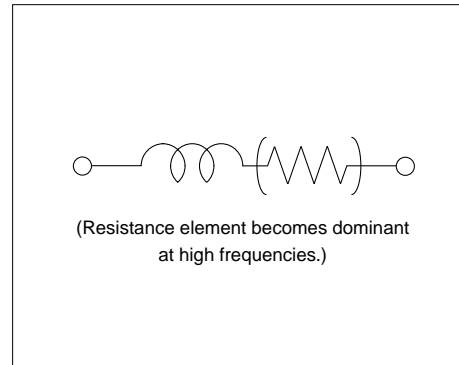
### ■ Features (BLM\_A Series)

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.

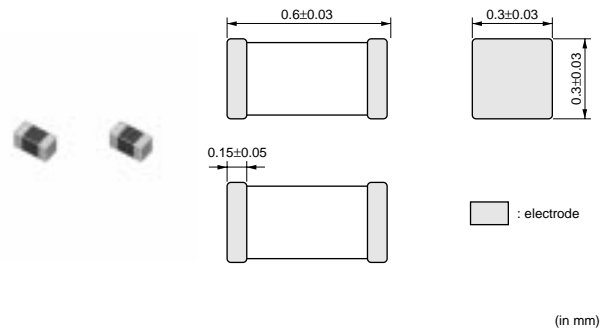
The nickel barrier structure of the external electrodes provides excellent solder heat resistance. BLM\_A series generates an impedance from the relatively low frequencies. Therefore BLM\_A series is effective in noise suppression in a wide frequency range (30MHz-several hundred MHz).

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

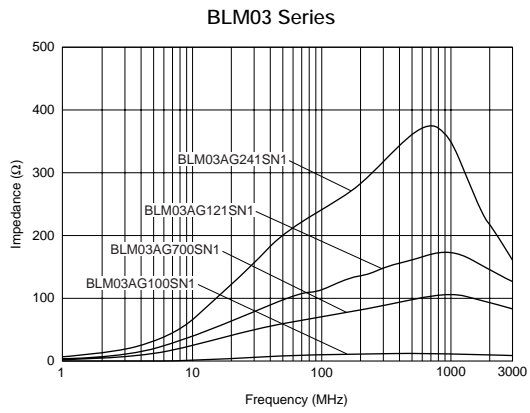


### BLM03A Series (0201 Size)

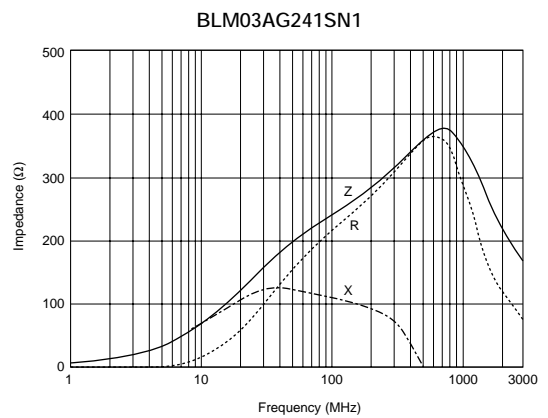
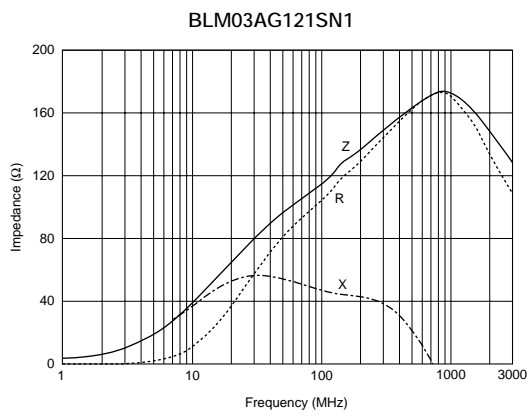
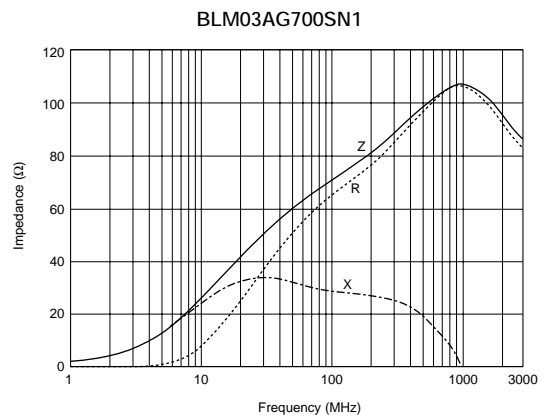
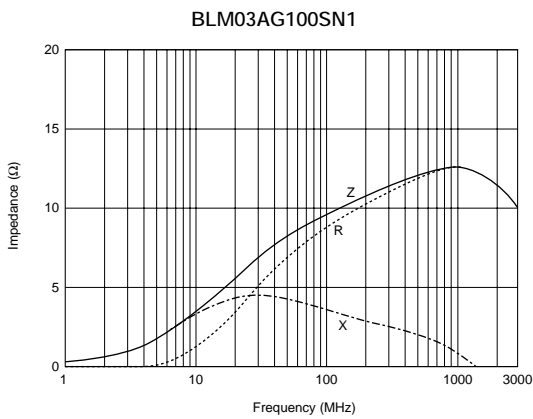


Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM03AG100SN1	10 (Typ.)	500	0.1	-55 to +125
BLM03AG700SN1	70 (Typ.)	200	0.5	-55 to +125
BLM03AG121SN1	120 ±25%	200	0.8	-55 to +125
BLM03AG241SN1	240 ±25%	100	1.0	-55 to +125

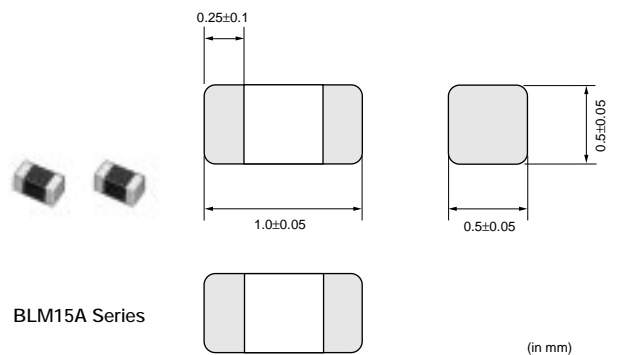
## ■ Impedance-Frequency (Typical)



## ■ Impedance-Frequency Characteristics



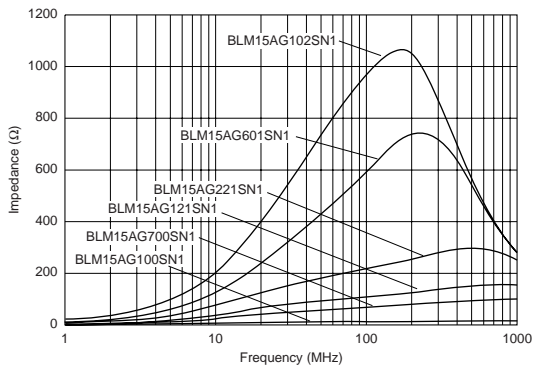
## BLM15A Series (0402 Size)



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

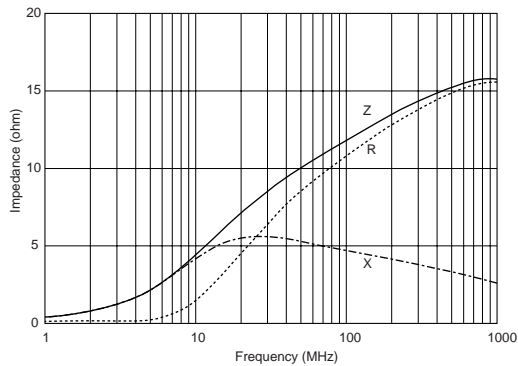
■ Impedance-Frequency (Typical)

BLM15A Series

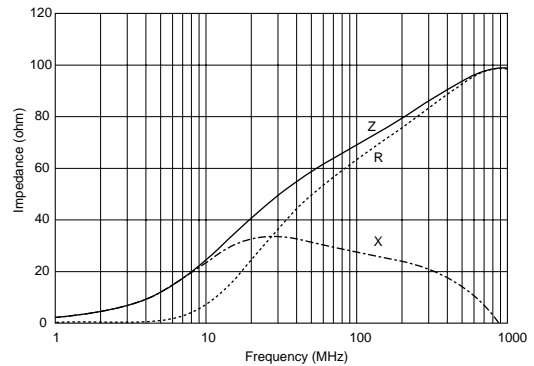


■ Impedance-Frequency Characteristics

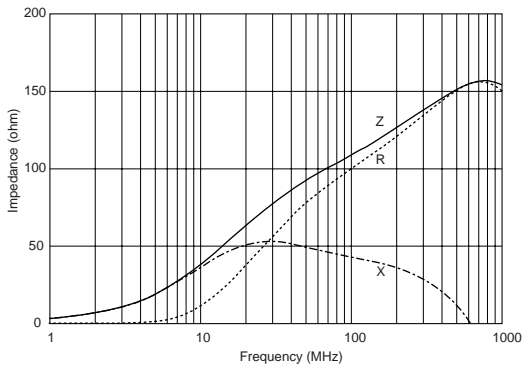
BLM15AG100SN1



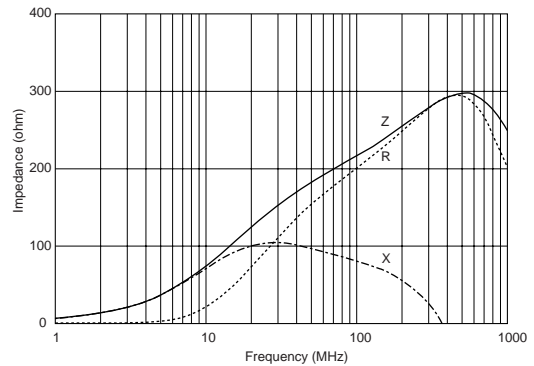
BLM15AG700SN1



BLM15AG121SN1



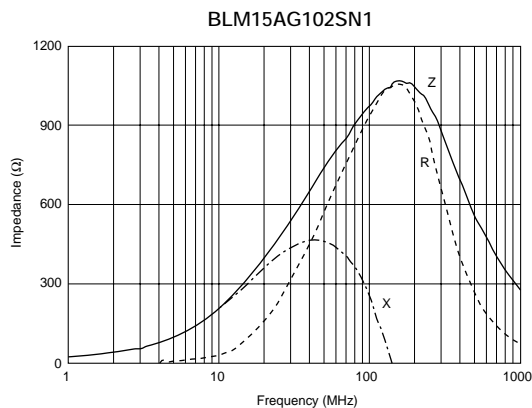
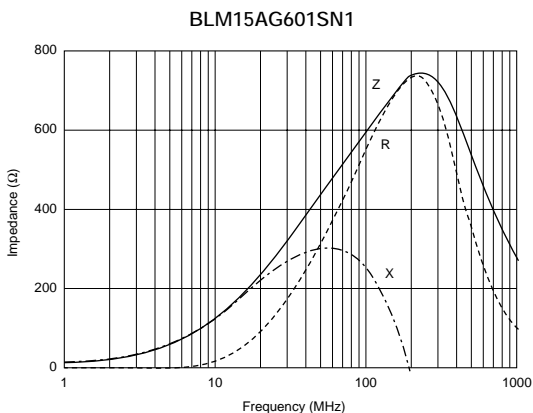
BLM15AG221SN1



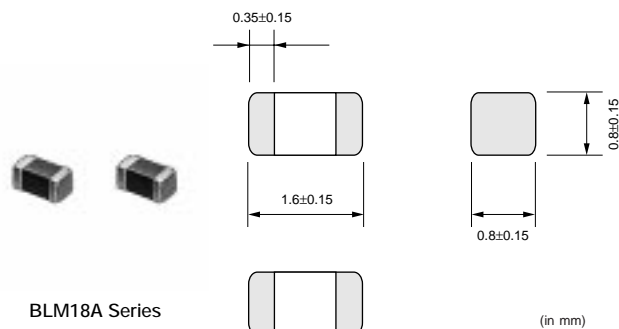
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### Impedance-Frequency Characteristics

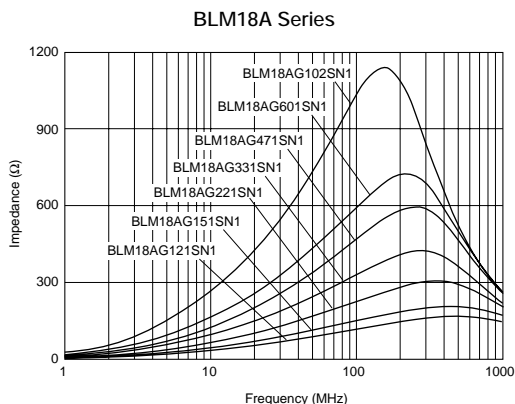


### BLM18A Series (0603 Size)

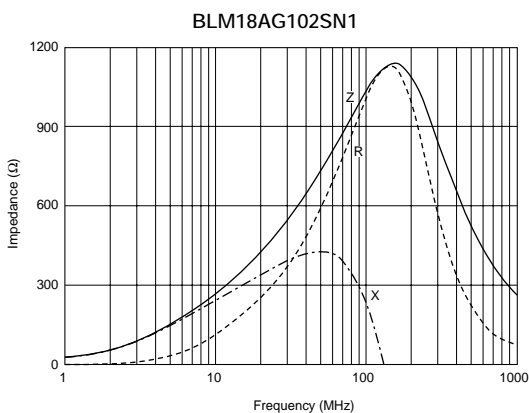
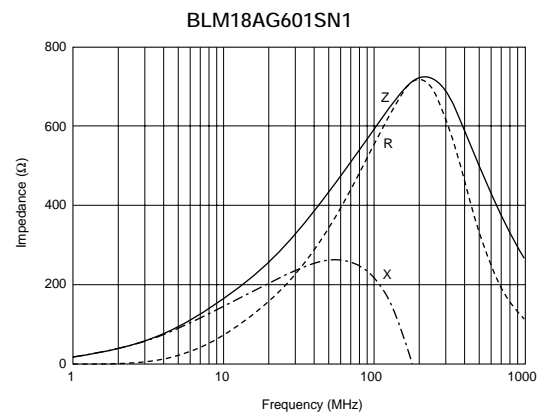
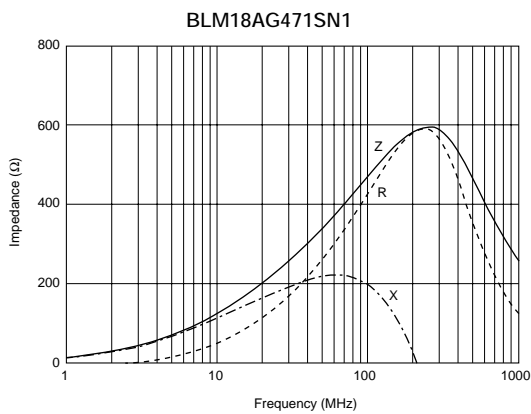
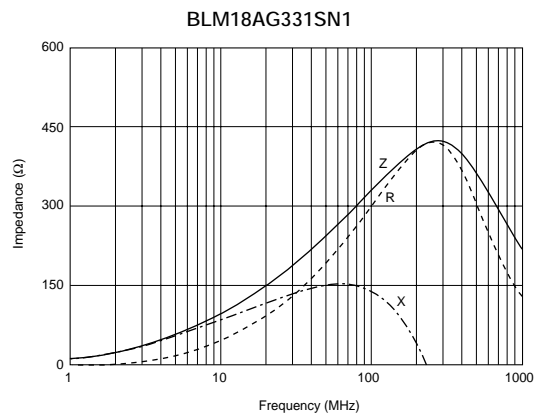
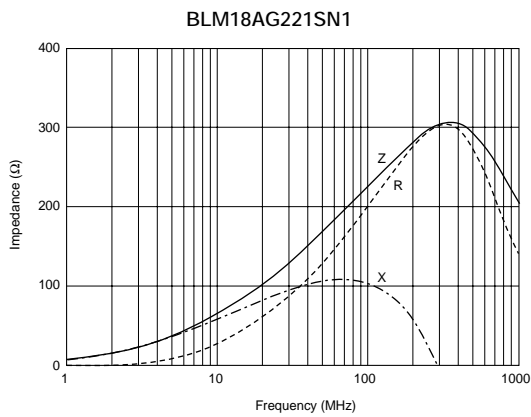
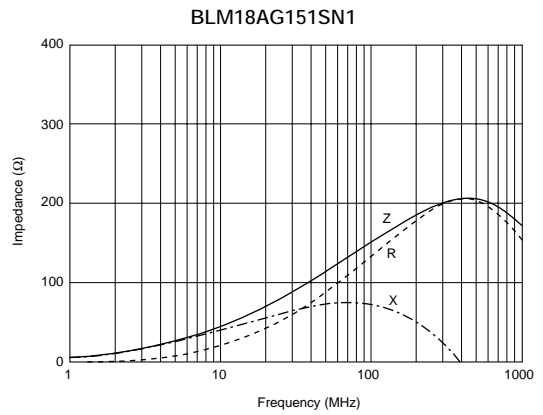
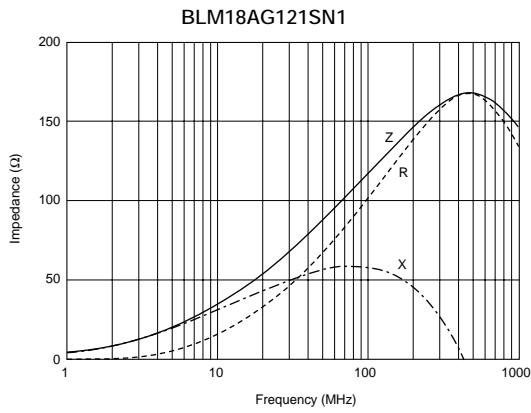


Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM18AG121SN1	120 ±25%	200	0.20	-55 to +125
BLM18AG151SN1	150 ±25%	200	0.25	-55 to +125
BLM18AG221SN1	220 ±25%	200	0.30	-55 to +125
BLM18AG331SN1	330 ±25%	200	0.45	-55 to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

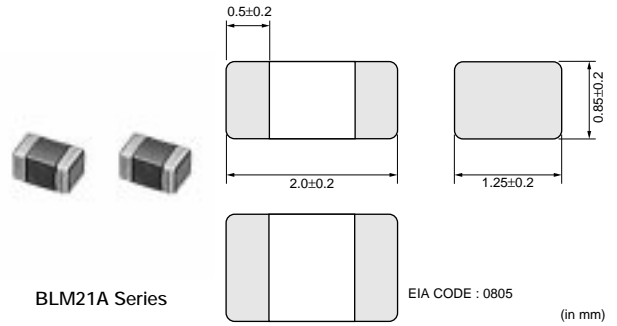


## ■ Impedance-Frequency Characteristics



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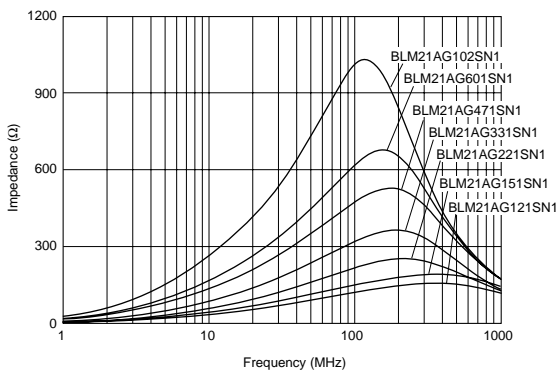
## BLM21A Series (0805 Size)



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

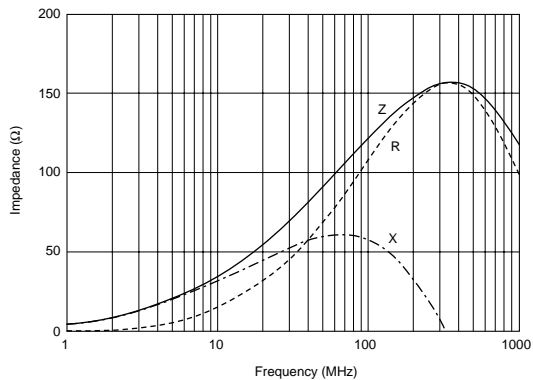
### ■ Impedance-Frequency (Typical)

BLM21A Series

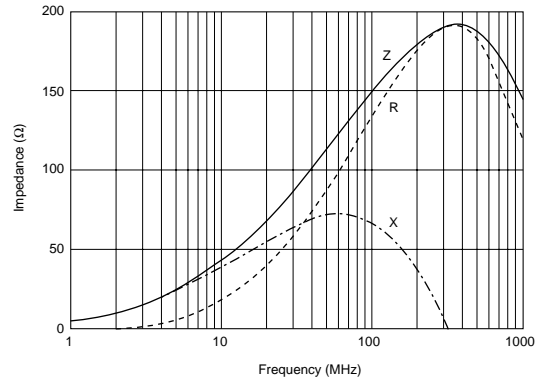


### ■ Impedance-Frequency Characteristics

BLM21AG121SN1



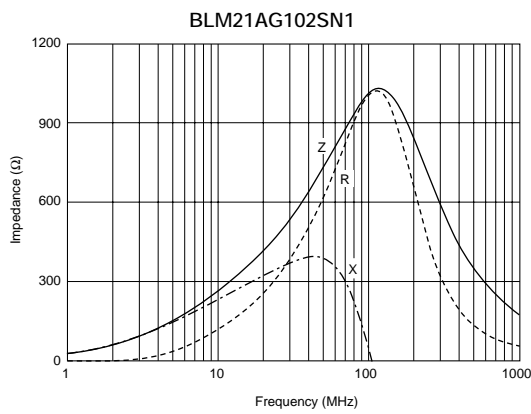
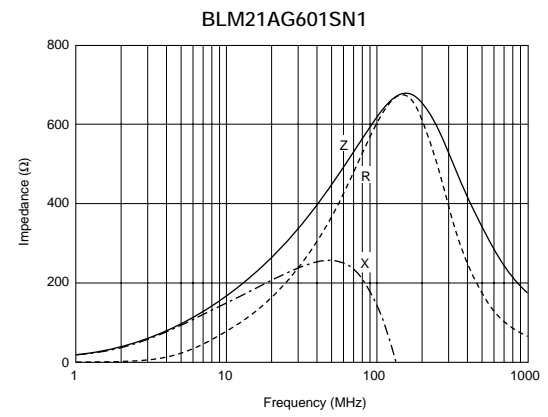
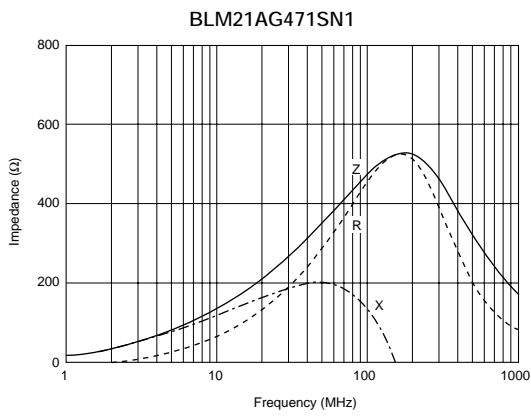
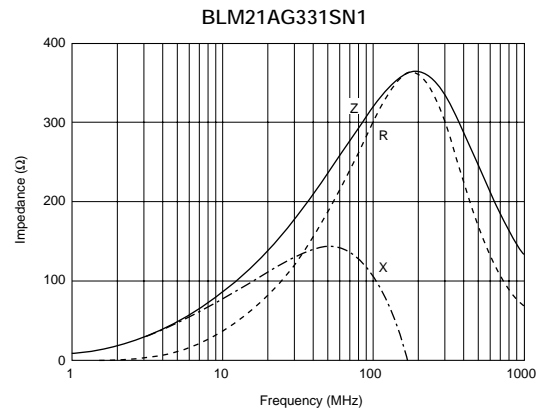
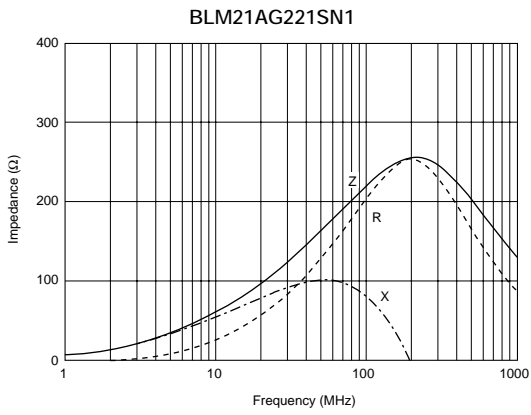
BLM21AG151SN1



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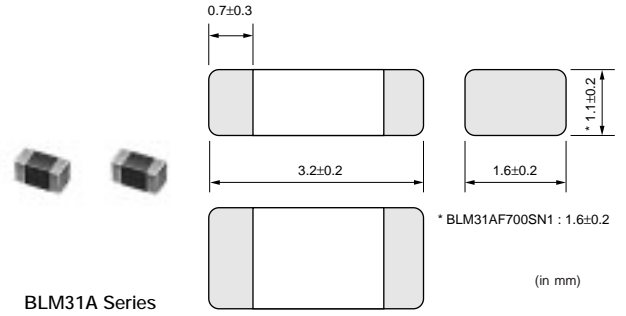
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### Impedance-Frequency Characteristics



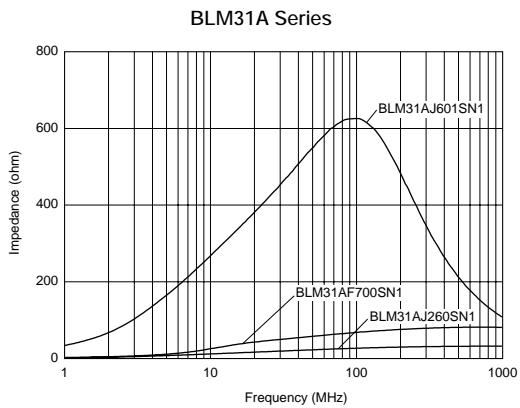
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## BLM31A Series (1206 Size)

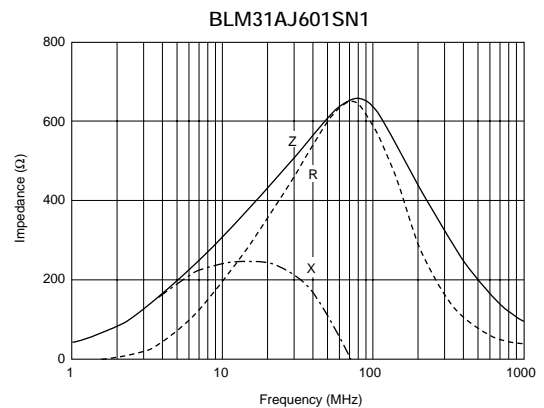
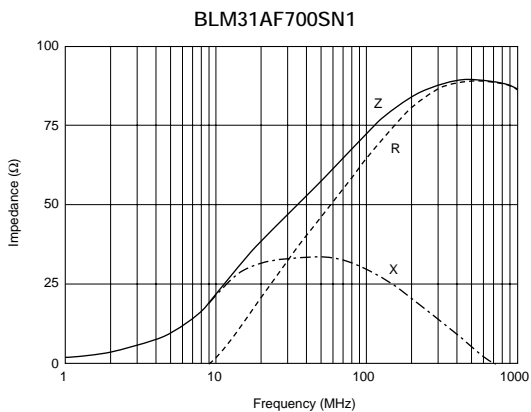
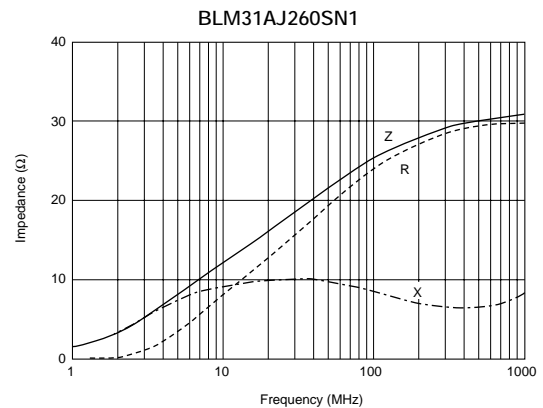


Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
BLM31AJ260SN1	26 ±25%	500	0.05	-55 to +125
BLM31AF700SN1	70 ±25%	200	0.15	-55 to +125
BLM31AJ601SN1	600 ±25%	200	0.90	-55 to +125

### ■ Impedance-Frequency (Typical)

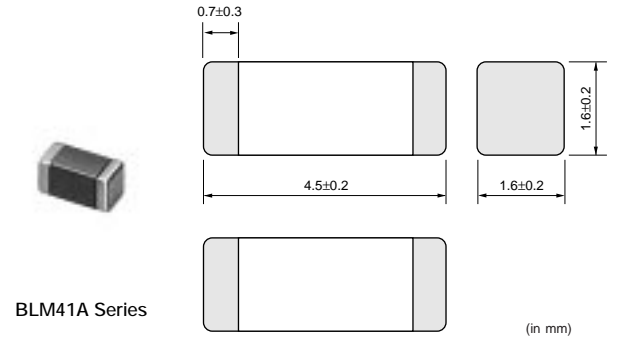


### ■ Impedance-Frequency Characteristics





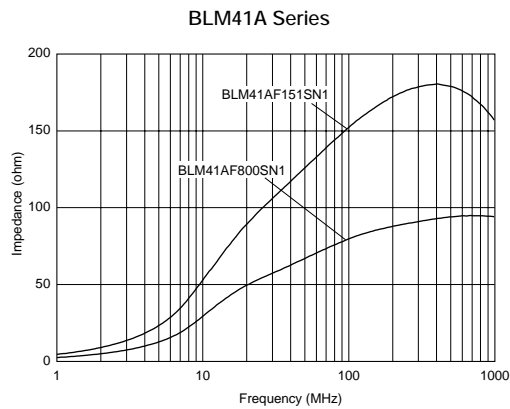
## BLM41A Series (1806 Size)



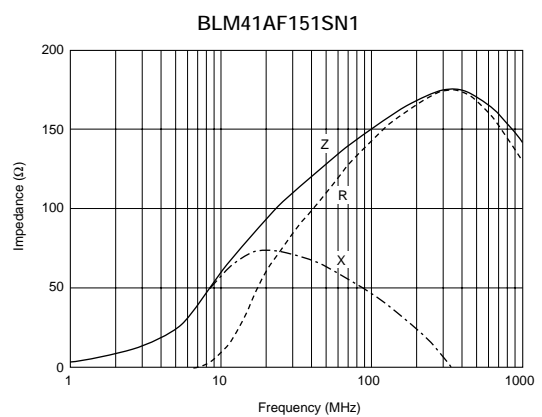
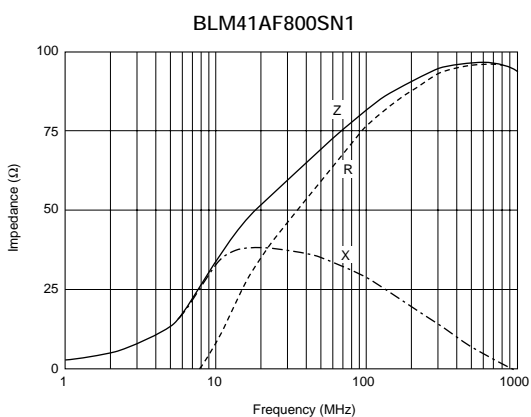
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Part Number	Impedance (at 100MHz/20 degree C) (ohm)	Rated Current (mA)	DC Resistance (max.) (ohm)	Operating Temperature Range (°C)
<b>BLM41AF800SN1</b>	80 ±25%	500	0.10	-55 to +125
<b>BLM41AF151SN1</b>	150 ±25%	200	0.50	-55 to +125

### ■ Impedance-Frequency (Typical)



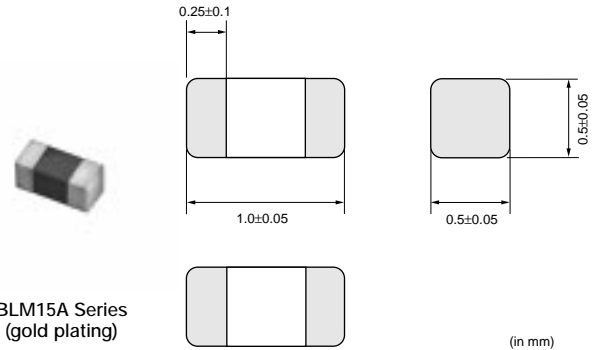
### ■ Impedance-Frequency Characteristics



## 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).



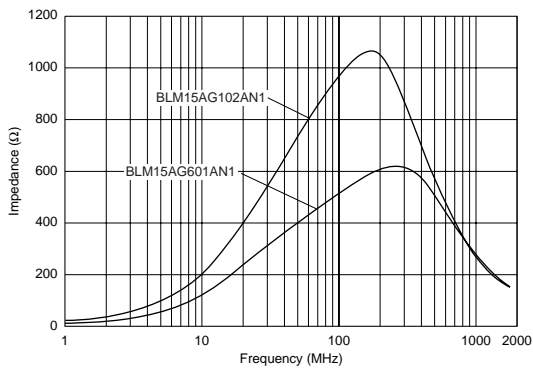
### ■ Applications

1. Optical transceiver modules
2. Optical pickup modules

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

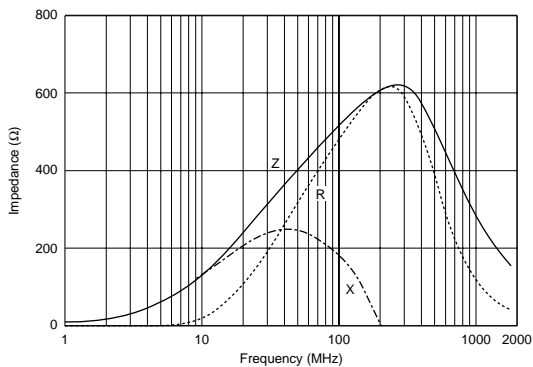
### ■ Impedance-Frequency (Typical)

BLM15A Series (gold plating)



### ■ Impedance-Frequency Characteristics

BLM15AG601AN1



BLM15AG102AN1

