

# MURATA EMI Suppression Filters (EMIFIL®) Chip Ferrite Beads



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 DESIGNED FOR STANDARD TYPE SIGNALS

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.

### Features:

- Suitable for flow and reflow soldering
- Wide temperature range: -55°C to +125°C

### Applications:

- I/O ports, DC power lines, and signal lines

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Murata Part No.	Case Code	Impedance (at 100MHz) (Ω)	Rated Current (mA)	Rdc Max. (Ω)	Price Each				Reel Qty.	Price Per Piece
						1	50	100	500		
81-BLM15AG100SN1D	BLM15AG100SN1D	0402	10	1000	.05	.19	.14	.111	.057	10000	.024
81-BLM15AG700SN1D	BLM15AG700SN1D	0402	70	500	.15	.19	.14	.111	.057	10000	.024
81-BLM15AG121SN1D	BLM15AG121SN1D	0402	120	500	.25	.19	.14	.111	.057	10000	.024
81-BLM15AG221SN1D	BLM15AG221SN1D	0402	220	300	.35	.19	.14	.111	.057	10000	.024
81-BLM15AG601SN1D	BLM15AG601SN1D	0402	600	300	.60	.19	.14	.111	.057	10000	.024
81-BLM15AG102SN1D	BLM15AG102SN1D	0402	1K	200	1.0	.19	.14	.111	.057	10000	.024
81-BLM11A121S	BLM18AG121SN1D	0603	120	200	.20	.18	.135	.104	.053	4000	.025
81-BLM18AG151SN1D	BLM18AG151SN1D	0603	150	200	.25	.18	.135	.104	.053	4000	.025
81-BLM11A221S	BLM18AG221SN1D	0603	220	200	.30	.18	.135	.104	.053	4000	.025
81-BLM18AG331SN1D	BLM18AG331SN1D	0603	330	200	.30	.18	.135	.104	.053	4000	.025
81-BLM18AG471SN1D	BLM18AG471SN1D	0603	470	200	.50	.18	.135	.104	.053	4000	.025
81-BLM11A601S	BLM18AG601SN1D	0603	600	200	.50	.18	.135	.104	.053	4000	.025
81-BLM11A102S	BLM18AG102SN1D	0603	1000	100	.70	.18	.135	.104	.053	4000	.025
81-BLM21AG350SN1D	BLM21AG350SN1D	0805	35	200	.15	.34	.202	.167	.081	4000	.041
81-BLM21AG121SN1D	BLM21AG121SN1D	0805	120	200	.15	.35	.213	.177	.085	4000	.043
81-BLM21AG151SN1D	BLM21AG151SN1D	0805	150	200	.15	.37	.213	.177	.085	4000	.043
81-BLM21AG221SN1D	BLM21AG221SN1D	0805	220	200	.20	.37	.213	.177	.085	4000	.043
81-BLM21AG331SN1	BLM21AG331SN1D	0805	330	200	.25	.37	.213	.177	.085	4000	.043
81-BLM21AG471SN1D	BLM21AG471SN1D	0805	470	200	.25	.37	.213	.177	.085	4000	.043
81-BLM21AG601F	BLM21AG601SN1D	0805	600	200	.30	.36	.202	.169	.082	4000	.041
81-BLM21AG102SN1	BLM21AG102SN1D	0805	1000	200	.45	.39	.245	.163	.093	4000	.049

## BLM\_H SERIES DESIGNED FOR UHF APPLICATIONS

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

- BLM18H series realizes high impedance at 1GHz and is suitable for noise suppression from 500MHz to GHz range
- HD-type for high-speed signal line provides a sharper roll-off after the cut off frequency
- The magnetic shielded structure minimizes cross talk
- HG-type is effective in noise suppression in wide frequency range
- Operating temperature: -55°C to +125°C

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Murata Part No.	Case Code	Impedance (at 100MHz) (Ω)	Rated Current (mA)	Rdc Max. (Ω)	Price Each				Reel Qty.	Price Per Piece
						1	50	100	500		
81-BLM15HD601SN1D	BLM15HD601SN1D	0402	600	300	.85	.53	.33	.216	.124	10000	.076
81-BLM15HD102SN1D	BLM15HD102SN1D	0402	1K	250	1.25	.53	.33	.216	.124	10000	.076
81-BLM15HG601SN1D	BLM15HG601SN1D	0402	600	300	.70	.53	.33	.216	.124	10000	.076
81-BLM15HG102SN1D	BLM15HG102SN1D	0402	1K	250	1.1	.53	.33	.216	.124	10000	.076
81-BLM18HB121SN1	BLM18HB121SN1D	0603	120	200	.50	.37	.23	.153	.088	4000	.046
81-BLM18HB221SN1D	BLM18HB221SN1D	0603	220	100	.80	.37	.23	.153	.088	4000	.046
81-BLM18HB331SN1D	BLM18HB331SN1D	0603	330	50	1.2	.37	.23	.153	.088	4000	.046
81-BLM18HD471SN1D	BLM18HD471SN1D	0603	470	100	1.2	.45	.28	.184	.105	4000	.056
81-BLM11HB601SD	BLM18HD601SN1D	0603	600	100	1.5	.45	.28	.184	.105	4000	.056
81-BLM11HB102SD	BLM18HD102SN1D	0603	1000	50	1.8	.45	.28	.184	.105	4000	.056
81-BLM11HA471SG	BLM18HG471SN1D	0603	470	200	.85	.45	.28	.184	.105	4000	.056
81-BLM11HA601SG	BLM18HG601SN1D	0603	600	200	1.0	.45	.28	.184	.105	4000	.056
81-BLM11HA102SG	BLM18HG102SN1D	0603	1000	100	1.6	.45	.28	.184	.105	4000	.056
81-BLM18HK331SN1	BLM18HK331SN1D	0603	330	200	.50	.45	.28	.184	.105	4000	.056
81-BLM18HK471SN1D	BLM18HK471SN1D	0603	470	200	.70	.45	.28	.184	.105	4000	.056
81-BLM18HK601SN1D	BLM18HK601SN1D	0603	600	100	.90	.45	.28	.184	.105	4000	.056
81-BLM18HK102SN1D	BLM18HK102SN1D	0603	1K	50	1.5	.45	.28	.184	.105	4000	.056

## BLM\_P SERIES DESIGNED FOR LOW DCR HIGH CURRENT CIRCUITS

BLM\_P series can match power lines to a maximum of 6A DC

- Operating temperature: -55°C to +125°C

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Murata Part No.	Case Code	Impedance (at 100MHz) (Ω)	Rated Current (mA)	Rdc Max. (Ω)	Price Each				Reel Qty.	Price Per Piece
						1	50	100	500		
81-BLM03PG220SN1D	BLM03PG220SN1D	0603	22	900	0.065	.35	.21	.144	.082	15000	.044
81-BLM11P300S	BLM18PG300SN1D	0603	30	1000	0.05	.19	.14	.11	.056	4000	.024
81-BLM18PG330SN1D	BLM18PG330SN1D	0603	33	3000	0.025	.19	.14	.11	.056	4000	.024
81-BLM03PG330SN1D	BLM03PG330SN1D	0603	33	750	0.09	.35	.21	.144	.082	15000	.044
81-BLM11P600S	BLM18PG600SN1D	0603	60	500	0.10	.19	.14	.11	.056	4000	.024
81-BLM18PG121SN1D	BLM18PG121SN1D	0603	120	2000	0.05	.19	.14	.11	.056	4000	.024
81-BLM18PG181SN1D	BLM18PG181SN1D	0603	180	1500	0.09	.19	.14	.11	.056	4000	.024
81-BLM21PG220SN1D	BLM21PG220SN1D	0805	22	6000	0.01	.28	.16	.131	.063	4000	.024
81-BLM21P300S	BLM21PG300SN1D	0805	30	3000	0.015	.28	.16	.131	.063	4000	.024
81-BLM21P600S	BLM21PG600SN1D	0805	60	3000	0.025	.28	.16	.131	.063	4000	.024
81-BLM21P221SG	BLM21PG221SN1D	0805	220	2000	0.05	.20	.15	.118	.06	4000	.024
81-BLM21P331SG	BLM21PG331SN1D	0805	330	1500	0.09	.28	.16	.131	.063	4000	.024
81-BLM31P330S	BLM31PG330SN1L	1206	33	6000	0.01	.66	.436	.311	.199	3000	.109
81-BLM31P500S	BLM31PG500SN1L	1206	50	3000	0.025	.59	.393	.283	.181	3000	.109
81-BLM31PG121SN1L	BLM31PG121SN1L	1206	120	3000	0.025	.59	.393	.283	.181	3000	.109
81-BLM31P391S	BLM31PG391SN1L	1206	390	2000	0.05	.66	.436	.311	.199	3000	.109
81-BLM31PG601SN1	BLM31PG601SN1L	1206	600	1500	0.09	.66	.436	.311	.199	3000	.109
81-BLM41P600S	BLM41PG600SN1L	1806	60	6000	0.01	.67	.458	.353	.251	2500	.147
81-BLM41P750S	BLM41PG750SN1L	1806	75	3000	0.025	.67	.458	.353	.251	2500	.147
81-BLM41PG101SN1L	BLM41PG101SN1L	1806	100	3000	0.025	.62	.426	.335	.243	2500	.147
81-BLM41P181S	BLM41PG181SN1L	1806	180	3000	0.025	.60	.415	.318	.227	2500	.147
81-BLM41PG471SN1L	BLM41PG471SN1L	1806	470	2000	0.05	.61	.416	.324	.231	2500	.147
81-BLM41PG102SN1L	BLM41PG102SN1L	1806	1K	1500	0.09	.68	.466	.356	.254	2500	.147

## BLM\_R SERIES DESIGNED FOR 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.

- Operating temperature: -55°C to +125°C

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Murata Part No.	Case Code	Impedance (at 100MHz) (Ω)	Rated Current (mA)	Rdc Max. (Ω)	Price Each				Reel Qty.	Price Per Piece
						1	50	100	500		
81-BLM18RK121SN1D	BLM18RK121SN1D	0603	120	200	.25	.22	.13	.105	.051	4000	.026
81-BLM18RK221SN1D	BLM18RK221SN1D	0603	220	200	.30	.22	.13	.105	.051	4000	.026
81-BLM18RK471SN1D	BLM18RK471SN1D	0603	470	200	.50	.22	.13	.105	.051	4000	.026
81-BLM18RK601SN1	BLM18RK601SN1D	0603	600	200	.60	.22	.13	.105	.051	4000	.026
81-BLM18RK102SN1D	BLM18RK102SN1D	0603	1K	200	.80	.22	.13	.105	.051	4000	.026
81-BLM21RK121SN1D	BLM21RK121SN1D	0805	120	200	.15	.37	.212	.176	.084	4000	.043
81-BLM21RK221SN1D	BLM21RK221SN1D	0805	220	200	.20	.37	.212	.176	.084	4000	.043
81-BLM21RK471SN1D	BLM21RK471SN1D	0805	470	200	.25	.37	.212	.176	.084	4000	.043
81-BLM21RK601SN1D	BLM21RK601SN1D	0805	600	200	.30	.39	.245	.163	.093	4000	.049
81-BLM21RK102SN1D	BLM21RK102SN1D	0805	1K	200	.50	.38	.234	.155	.089	4000	.046

**DIMENSIONS: mm**

0402: Length 0.25±0.1, Width 1.0±0.05, Height 0.5±0.05

0603: Length 0.4±0.2, Width 1.6±0.15, Height 0.8±0.15

0805: Length 0.5±0.2, Width 2.0±0.2, Height 1.25±0.2

1206: Length 0.7±0.3, Width 3.2±0.2, Height 1.1±0.2

1806: Length 0.7±0.3, Width 4.5±0.2, Height 1.6±0.2