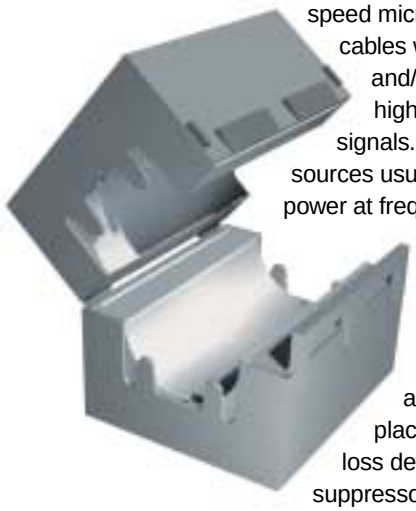
Split Ferrite Suppressors for Round Cables

Electronic cables and wires, by virtue of their length-to-width ratios, are perfect natural antennas. In the presence of high speed microprocessor signals, cables will conduct, radiate and/or receive unwanted high frequency interfering signals. Radio interference sources usually radiate their RFI power at frequencies above 30 MHz by way of the main cabling, which acts as an antenna. Control of radio interference can be assured by proper placement of an insertion loss device, such as a ferrite suppressor. Any device used to block an RFI signal between its source and a receiver is an electromagnetic interference (EMI) shield. The measure of this ability to attenuate RFI is shielding effectiveness, "SE", which is expressed in decibels, "dB", the ratio of field strength on one side of the shield to the other side.

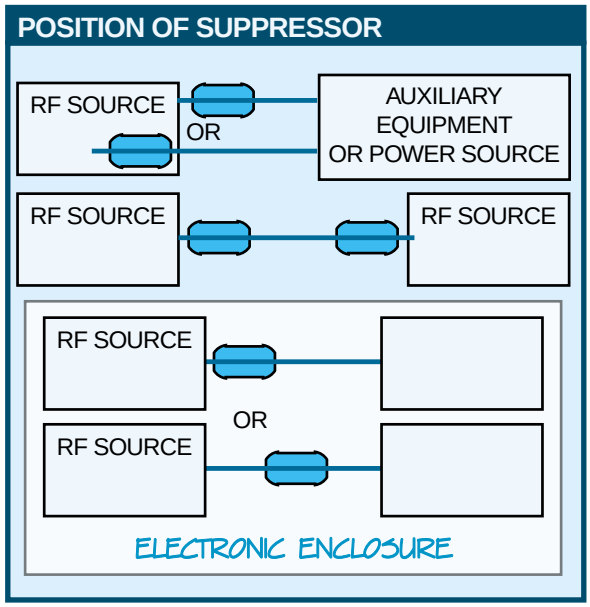


One of the most versatile and cost effective shielding methods that can be used today is the API Delevan bisected ferrite cable snap assembly. The bisected styling, or familiar clamshell enclosure design offers the ultimate in adaptability. The RF absorbing material interacts directly with unwanted high frequency energy and dissipates it effectively while allowing data signals to pass unimpeded.

Bisected ferrites have a concentrated, homogeneous magnetic structure with high permeability. These are consistently stable at +20°C to +60°C and provide RF suppression without eddy current losses.

AIR GAP EFFECT

The air gap in bisected ferrites actually extends current carrying capabilities with only an extremely small reduction in impedance versus solid ferrites of the same size. The gap is magnetically insignificant while it is electrically significant as a discontinuation, thereby accommodating more current.



POSITION OF SUPPRESSOR The suppressor should normally be located close to the cable termination where it exits the enclosure. Where a cable connects two enclosures containing RF sources, a suppressor on each end may be required. For circuits within an enclosure, a position close to the RF is best. However, other locations along the circuit may work as well.

Material and U.L. Data API-1 Material, see characteristics and information on page 121.

Continued on next page

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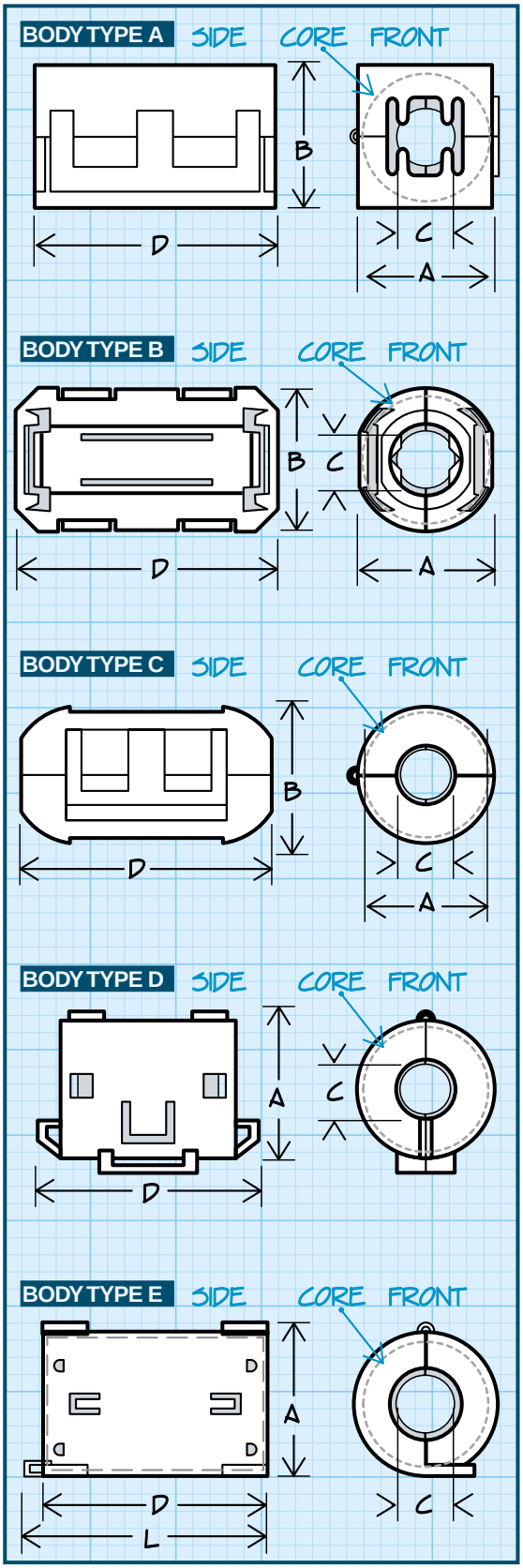
BF Series

Suppressors for Round Cables



PART NUMBER	UNITS	BODY TYPE	DIMENSIONS Inches ± 0.04; mm ± 1.0 A	B	C	D	L	IMPEDANCE (OHMS) * 25 MHz	100 MHz
SERIES BF - FOR ROUND CABLES									
BF2930	in.	A	1.16	1.20	0.51	1.30	—	155	257
	mm		29.6	30.5	13.0	33.0			
BF2223	in.	A	0.87	0.91	0.39	1.28	—	136	250
	mm		22.3	23.3	10.0	32.6			
BF1719	in.	A	0.70	0.76	0.25	1.28	—	171	325
	mm		17.8	19.5	6.5	32.5			
BF1835	in.	B	0.70	0.77	0.35	1.37	—	112	172
	mm		18.0	19.7	9.0	35.0			
BF1125-5	in.	B	0.46	0.51	0.19	0.98	—	96	154
	mm		11.7	13.0	5.0	25.0			
BF1125-3	in.	B	0.46	0.51	0.13	0.98	—	139	191
	mm		11.7	13.0	3.5	25.0			
BF1429	in.	C	0.57	0.61	0.22	1.14	—	85	157
	mm		14.5	15.7	5.6	29.0			
BF1225	in.	C	0.50	0.57	0.15	0.98	—	82	146
	mm		12.8	14.7	4.0	25.0			
BF3024	in.	D	1.20	—	0.45	0.69	0.94	51	103
	mm		30.5		11.4	17.7	24.0		
BF2125	in.	D	0.84	—	0.32	0.77	1.01	50	107
	mm		21.5		8.15	19.7	25.8		
BF2123	in.	D	0.84	—	0.32	0.66	0.90	42	94
	mm		21.5		8.15	16.8	23.0		
BF1835-9	in.	E	0.73	—	0.35	1.22	1.38	126	174
	mm		18.6		9.0	31.0	35.2		
BF3121	in.	D	1.24	—	0.59	0.60	0.84	41	95
	mm		31.5		15.0	15.2	21.5		

Physical Parameters

Material and U.L. Data API-1 Material, see characteristics and information on page 121.

*** Note** Impedance is typical, based on 1⁄2 turn (4.0") 18 AWG wire. Impedance measurement using HP4191A.

Color Black; Special colors Available for bases on a non-cancellable, non returnable basis C = Cream; W = White; Gr = Grey

U.L. Recognized

All plastic and adhesive components use U.L. Recognized materials with Flammability Ratings of UL94V-0, UL-510 or UL-746C

SEE Z vs. f GRAPHS ON NEXT PAGE

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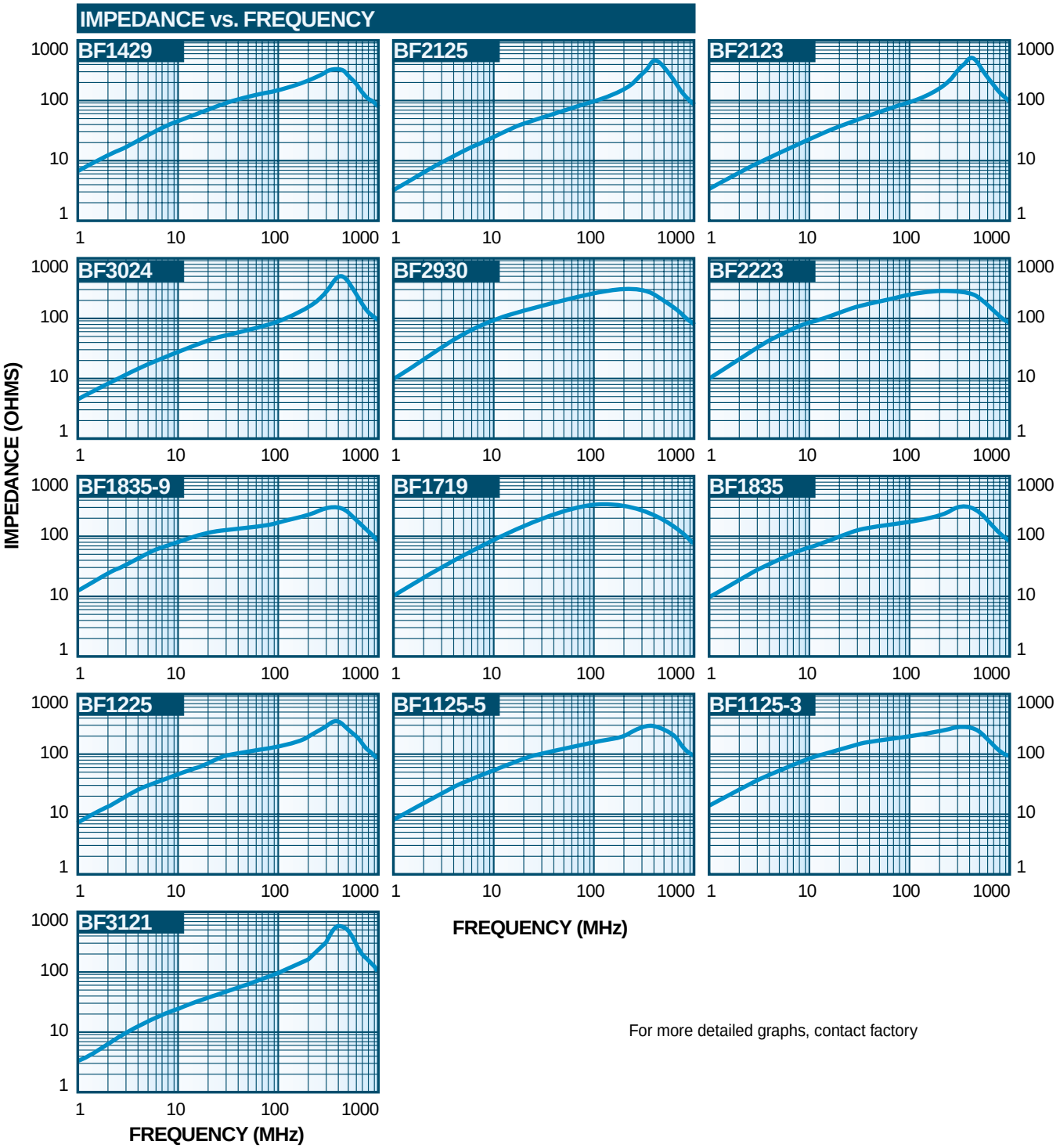

For more detailed graphs, contact factory

Additional Information on Preceding Pages

Note Impedance is typical, based on 1⁄2 turn (4.0") 18 AWG wire.
Impedance measurement using HP4191A

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