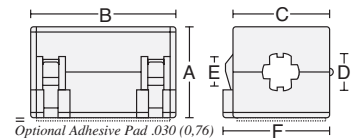


## sleeve snap

Box-shaped ferrite assembly in enclosed nylon case. Various sizes are functional with wires up to .500" (12,7 mm) diameter. Simply clamp around cable or wire; plastic tabs at entry/exit ports apply pressure to cable surface to maintain mounting position. Options include foam adhesive pad on bottom.



Available in standard colors gray (i.e., SS28B2031) and black (i.e., SS28B2031K)

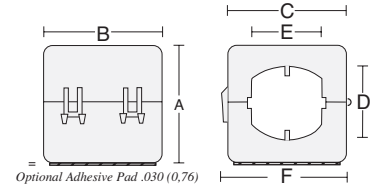
Patent No. 5,764,125

PART No.	w/ Adhesive	A	B	C	D	E	F	IMPEDANCE IN OHMS
SS28B2027 AS28B2027		.420 10,7	.468 11,9	.468 11,9	.106 2,7	.072 1,8	.468 11,9	105 @ 100MHz
SS28B2031 AS28B2031		.700 17,8	1.255 31,9	.675 17,1	.230 5,8	.187 4,7	.768 19,5	200 @ 100MHz
SS28B2030 AS28B2030		.790 20,1	1.265 32,1	.770 19,6	.270 6,9	.220 5,6	.885 22,5	200 @ 100MHz
SS28B2033 AS28B2033		.790 20,1	1.265 32,1	.770 19,6	.350 8,8	.290 7,4	.885 22,5	200 @ 100MHz
SS28B2036 AS28B2036		1.155 29,3	1.250 31,8	1.125 28,6	.415 10,5	.350 8,9	1.230 31,2	230 @ 100MHz
SS28B2041 AS28B2041		.965 24,5	1.285 32,6	.930 23,6	.450 11,4	.380 9,7	1.035 26,3	238 @ 100MHz
SS28B2040 AS28B2040		1.155 29,3	1.250 31,8	1.125 28,6	.550 14,0	.480 12,2	1.230 31,2	230 @ 100MHz

## sleeve snap for cable bundles

Box-shaped ferrite assembly for cable bundle diameters up to .730" (18,5mm) diameter. Allows single location for RFI suppression for multiple cables. Each circuit reacts separately with the suppression material without saturation. Alternatively, multiple turns of a single cable greatly increases impedance depending on frequency - see page 6, figures 3 and 4. Optional adhesive mount base.

For optional variable diameter end port version with flexible spring flutes, see part numbers SS28B2044 and AS28B2044 in the photo below.

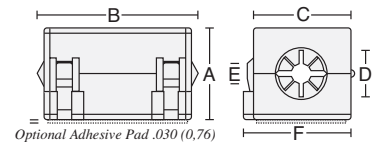


SS28B2035 available in standard colors gray (SS28B2035) and black (SS28B2035K)

PART No.	w/ Adhesive	A	B	C	D	E	F	IMPEDANCE IN OHMS
SS28B2035 AS28B2035		1.155 29,3	1.250 31,8	1.125 28,6	.790 20,1	.720 18,3	1.230 31,2	129 @ 100MHz
SS28B2043 AS28B2043		1.700 43,2	1.780 45,2	1.800 45,7	.790 20,1	.720 18,3	1.830 46,5	260 @ 100MHz

## sleeve snap

**WITH VARIABLE DIAMETER END PORTS.** Box-shaped ferrite assembly in fully enclosed nylon case. End ports are surrounded with flexible spring flutes to grip a range of cable diameters from .125" to .730" (3,2 to 18,5 mm). Special mounting options include foam adhesive pad on bottom.



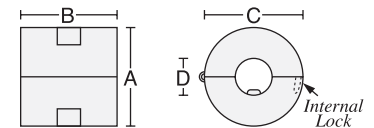
Available in standard colors gray (i.e., SS28B2034) and black (i.e., SS28B2034K)

Patent No. 5,003,278 and Patent No. 5,764,125

PART No.	w/ Adhesive	A	B (ref.)	C	D	E	F	IMPEDANCE IN OHMS
SS28B2034 AS28B2034		.585 14,9	1.250 31,8	.585 14,9	.250 6,4	.120 3,0	.680 17,3	220 @ 100MHz
SS28B2037 AS28B2037		.790 20,1	1.450 36,8	.770 19,6	.350 8,8	.200 5,1	.885 22,5	200 @ 100MHz
SS28B2042 AS28B2042		.965 24,5	1.480 37,6	.930 23,6	.425 10,8	.170 4,3	1.035 26,3	238 @ 100MHz
SS28B2032 AS28B2032		1.155 29,3	1.450 36,8	1.125 28,6	.500 12,7	.200 5,1	1.230 31,2	230 @ 100MHz
SS28B2044 AS28B2044		1.700 43,2	1.800 45,7	1.800 45,7	.790 20,1	.200 5,1	1.830 46,5	260 @ 100MHz

## internal locking snap

**WITH SECURE INTERNAL LOCKING SYSTEM.** Cannot be reopened after snapping closed into position. Ensures that suppressor cannot be removed. Grip-lock tabs at entry/exit ports prevent longitudinal slippage on a range of cable diameters from .275" to .300" (7,0 to 7,6mm). Standard colors are computer gray (PMS#413), computer beige (PMS#468), black and natural white. A cost-effective alternative to over-molding.



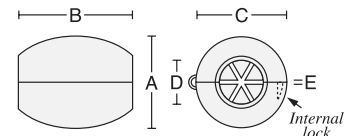
Patent Nos. 5,003,278 , 5,162,772 and 5,764,125

PART No.	A	B (ref.)	C	D	COLOR	IMPEDANCE IN OHMS
IL28B0642W	.780 19,8	.780 19,8	.780 19,8	.316 8,0	NATURAL WHITE	100 @ 100MHz
IL28B0642G	.780 19,8	.780 19,8	.780 19,8	.316 8,0	COMPUTER GRAY	100 @ 100MHz
IL28B0642B	.780 19,8	.780 19,8	.780 19,8	.316 8,0	COMPUTER BEIGE	100 @ 100MHz
IL28B0642K	.780 19,8	.780 19,8	.780 19,8	.316 8,0	BLACK	100 @ 100MHz

## jelly bean snap

**MINIATURE SIZE WITH INTERNAL LOCKING SYSTEM.** Cannot be reopened after snapping closed into position. Ensures that suppressor cannot be removed. Grip-lock tabs at entry/exit ports prevent longitudinal slippage on a range of cable diameters from .060" to .120" (1,5 to 3,0mm).

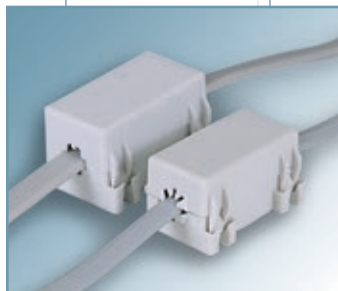
Excellent for tight spaces and low profile applications. A cost-effective alternative to "molded-in" suppressors, shrink tubing, tie wraps, taping and other secondary installation operations.



Available in standard color gray

Patent Nos. 5,003,278 , 5,162,772 and 5,764,125

PART No.	A	B	C	D	E	IMPEDANCE IN OHMS
JB28B0010	.670 17,0	.820 20,8	.670 17,0	.290 7,4	.055 1,4	160 @ 100MHz

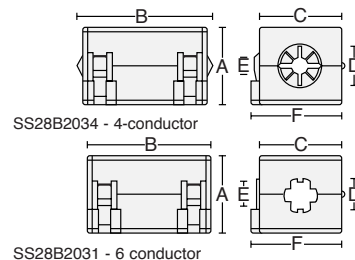


## telecom cable snaps

**WITH END PORTS FOR FLAT-OVAL CABLES.** Box-shaped ferrite assembly in fully enclosed nylon case. Two sizes: one for 4-conductor and one for 6-conductor standard telecom flat-oval cable. Clamps around cable with appropriate pressure to maintain desired position.

Available in standard colors gray (i.e., SS28B2034) and black (i.e., SS28B2034K)  
Patent Nos. 5,003,278 and 5,764,125

PART No.	Cable Size	A	B	C	D	E	F	IMPEDANCE IN OHMS
SS28B2034	4 conductor	.585	14,9	1.250	31,8	.585	14,9	220 @ 100MHz
SS28B2031	6 conductor	.700	17,8	1.255	31,9	.675	17,1	200 @ 100MHz



## very high impedance multi-turn sleeve snap

**WITH SERPENTINE CABLE THREADING CAPABILITY.**

By increasing the number of times the circuit passes through the ferrite core, the effective magnetic path is lengthened yielding a significant increase in impedance. See page 6, figures 3 and 4. The gain is equal to  $N^2$ , the square of the number of turns, and depending on the circuit cable load and frequencies involved, much of the increase can be realized.

Cables may be "looped back through" as shown at left; or, "looped over the top" as shown at left (insert).

In an alternate configuration, separate cable circuits can be accommodated without saturation. Three styles permit different approaches:

The 1-hole allows two passes of a cable with a diameter up to .365"

(9,3mm) or three passes of a cable with a diameter up to .243" (6,2mm).

The 2-hole allows two passes of a cable with a diameter up to .335" (8,5mm).

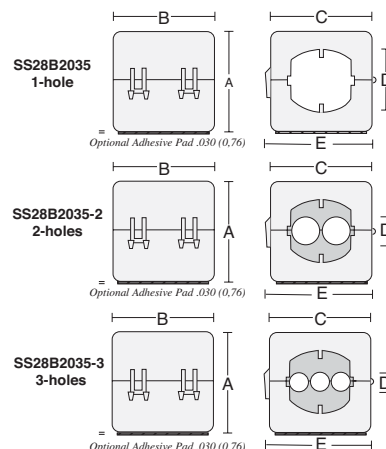
The 3-hole allows three passes of cable with a diameter up to .203" (5,8mm).

Each is available with an optional adhesive foam pad mounting base.

Available in standard colors gray (i.e., SS28B2035) and black (i.e., SS28B2035K)  
Patent No. 5,003,278

PART No.	w/Adhesive	Description	A	B	C	D	E	IMPEDANCE IN OHMS ref.
SS28B2035	AS28B2035	1-hole	1.155	29,3	1.250	31,8	1.125 28,6	1.230 31,2 1N=129* 2N=2=4NΩ ref.
SS28B2035-2	AS28B2035-2	2-hole	1.155	29,3	1.250	31,8	1.125 28,6 .335 8,5	1.230 31,2 1N=270* 3N=3=9NΩ ref.
SS28B2035-3	AS28B2035-3	3-hole	1.155	29,3	1.250	31,8	1.125 28,6 .203 5,2	1.230 31,2 1N=340* depending on circuit load and frequency

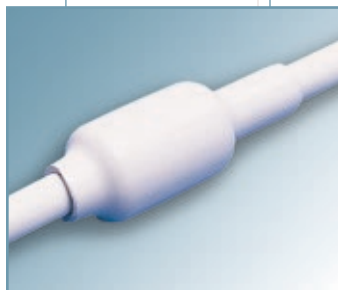
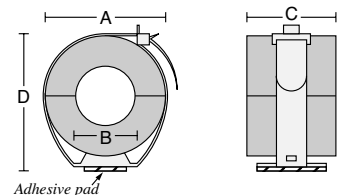
\* @ 100 MHz



## cable bundle clamp

**WITH UNIVERSAL MOUNTING STRAP.** For cable bundle diameters up to 1.00" (25,4mm). Allows single location for RFI suppression for multiple cables and wiring runs. Each circuit reacts independently with the suppression material without saturation. Adhesive mount base also provides a centered .203" (5,1mm) diameter hole for optional hardware attachment. Quick-release closure clip allows easy addition or removal of wires.

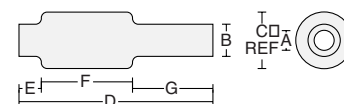
PART No.	w/ adhesive	A	B	C	D	IMPEDANCE IN OHMS
BC28B1251	BA28B1251	1.38	35,1	.75	19,1	.875 22,2 1.71 41,7 138 @ 100MHz
BC28B1501	BA28B1501	1.63	41,4	.75	19,1	1.000 25,4 1.96 48,0 177 @ 100MHz
BC28B1500	BA28B1500	1.63	41,4	1.00	25,4	1.000 25,4 1.96 48,0 133 @ 100MHz



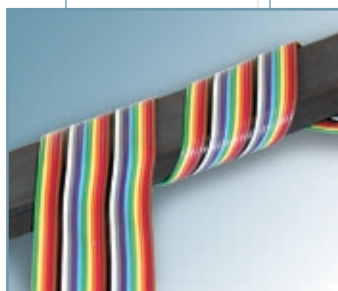
## pre-molded sleeve

**WITH INTERNAL FRICTION GRIP** Exterior PVC sheath pre-molded over ferrite suppressor. Assembles to cable prior to termination by threading in one end and out the other. Neutral gray standard color. Five sizes accommodate cable diameters from .200" to .430" (5,1 to 10,9mm). The preferred alternative to cable over-molding, shrink tubing, taping, tie wraps and other costly secondary installation operations. A drop of water in the I.D. during assembly will facilitate sliding into position.

PART No.	A	B	C	D	E	F	G	IMPEDANCE IN OHMS
PM28B3375	.192	4,8	.290	7,4	.465	11,8	2.01 51,1	.250 6,4 .960 24,4 .800 20,3 140 @ 100MHz
PM28B0625	.310	7,9	.400	10,2	.715	18,2	1.82 46,2	.250 6,4 .772 19,6 .800 20,3 120 @ 100MHz
PM28B1625	.310	7,9	.400	10,2	.715	18,2	2.38 60,5	.250 6,4 1.335 33,9 .800 20,3 225 @ 100MHz
PM28B0686	.375	9,5	.465	11,8	.776	19,7	2.38 60,5	.250 6,4 1.335 33,9 .800 20,3 196 @ 100MHz
PM28B0736	.430	10,9	.520	13,2	.776	19,7	2.38 60,5	.250 6,4 1.335 33,9 .800 20,3 176 @ 100MHz



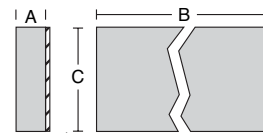
Patent No. 5,200,730



## special purpose shielding bar

For situations where extremely high amounts of attenuation are needed and/or multiple passes through a traditional ferrite I.D. are not practical or sufficient. Simply wrap cable in a spiral around bar for optimum absorption.

- One individual size fits most applications
- For round or flat cables wound axially or attached longitudinally
- Attachment with cable ties or optional adhesive pad
- Sandwiching cable between two bars provides up to three times the impedance of a single bar depending on frequency



\* Optional Adhesive pad .030 (0,76)

PART No.	w/ adhesive	A	B	C	IMPEDANCE IN OHMS
SB28B5630	SB28B5630A	.365	9,3	5.630 143,0	1.00 25,4 one pass: 500 @ 100MHz



### engineering kit #EK28B0032

BISECTED FERRITES FOR APPLICATIONS UP TO 1 GHz WITH PEAK PROPERTIES AT 250MHz.

Our most popular engineering kit! Contains a large assortment of various sizes of ferrite assemblies from catalog pages 10 through 21. Manufactured in the most frequently used universal #28 wideband material formulation for all applications up to 1 GHz.

All catalog items are in stock at all times for immediate delivery.



### engineering kit #EK28B0021

SOLID FERRITES FOR APPLICATIONS UP TO 1 GHz WITH PEAK PROPERTIES AT 250MHz.

Sample assortment of twenty cylindrical and flat solid ferrite suppressors in universal #28 wideband material formulation for applications up to 1 GHz. Contains many of the cylindrical and flat rectangular designs shown on pages 15 and 19, including the "SM" shock mount versions.

See catalog pages 15 and 19 for all items available from stock for immediate delivery.



### saddle beads® engineering kit #EK28B27SB

FERRITES FOR APPLICATIONS UP TO 1 GHz WITH PEAK PROPERTIES AT 250MHz.

A wide variety of common sizes of our unique half-toroid, half-bead, half-sleeve and plate shapes for round wire, flat wire and PC board components. Manufactured in the most frequently used universal #28 wideband material formulation for all applications up to 1 GHz.

See catalog page 20 for all items available from stock for immediate delivery.



### engineering kit #EK33B0011, low frequency 30MHz peak

BISECTED FERRITES FOR APPLICATIONS FROM 1 TO 30MHz WITH PEAK PROPERTIES AT 30MHz.

Sample assortment containing nine of the most common configurations of ferrite assemblies manufactured in #33 material formulation. Specifically applicable in the 1-30 MHz range.

Contains part numbers TC33B0805, TC33B0984, CS33B1805, CV33B1984, FA33B2480, SS33B2033, SS33B2037, SS33B2032, SS33B2036. Other sizes available on a special order basis.

See catalog pages 22 and 23 for all items available from stock for immediate delivery. Most other catalog items are also available in this material on special order basis.



### engineering kit #EK25B0012, high frequency 700MHz peak

BISECTED FERRITES FOR APPLICATIONS UP TO 1 GHz WITH PEAK PROPERTIES AT 700MHz.

Sample assortment of ten popular stock items manufactured in our newest #25 high frequency material. Effective to 1.2 GHz with peak properties at 700 MHz.

Contains part numbers TC25B0642, TC25B0937, CS25B1642, SA25B0121, CV25B1937, FA25B2480, SS25B2033, SS25B2032, SS25B2037, SS25B2036. Other sizes available on a special order basis.

See catalog pages 24 and 25 for all items available from stock for immediate delivery. Most other catalog items are also available in this material on special order basis.



### engineering kit #EK20B0009, Bluetooth™

BISECTED AND SOLID FERRITES FOR APPLICATIONS CONCERNED WITH 2.45GHz OPERATIONS.

Sample assortment of nine popular stock items manufactured in #20 material formulation. Specifically applicable in the 2.45GHz frequency area.

Contains part numbers 20B0562-2, 20B0736-0, 20R1260, 20R1575, FA20B2480, SS20B2034, SS20B2037, SS20B2033, SS20B2042.

See catalog pages 26 and 27 for all items available from stock for immediate delivery. Most other catalog items are also available in this material on special order basis.

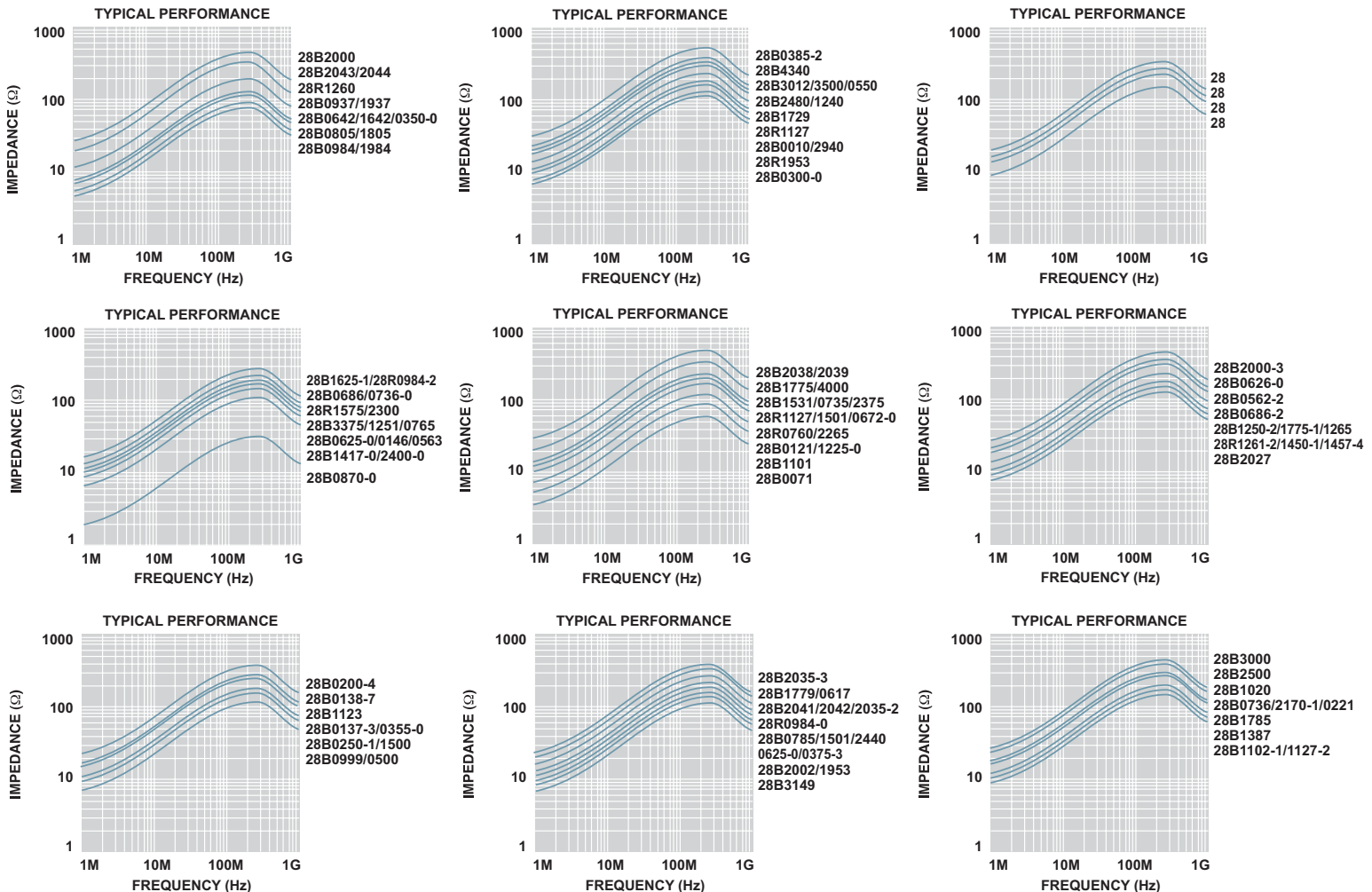


# Attenuation Properties by Part Number

## IMPEDANCE VS. FREQUENCY-#28 MATERIAL.

The #28 formulation of suppression material is our most common product. It is an excellent wideband general purpose insertion loss absorber for frequencies from 10 MHz up to 1 GHz.

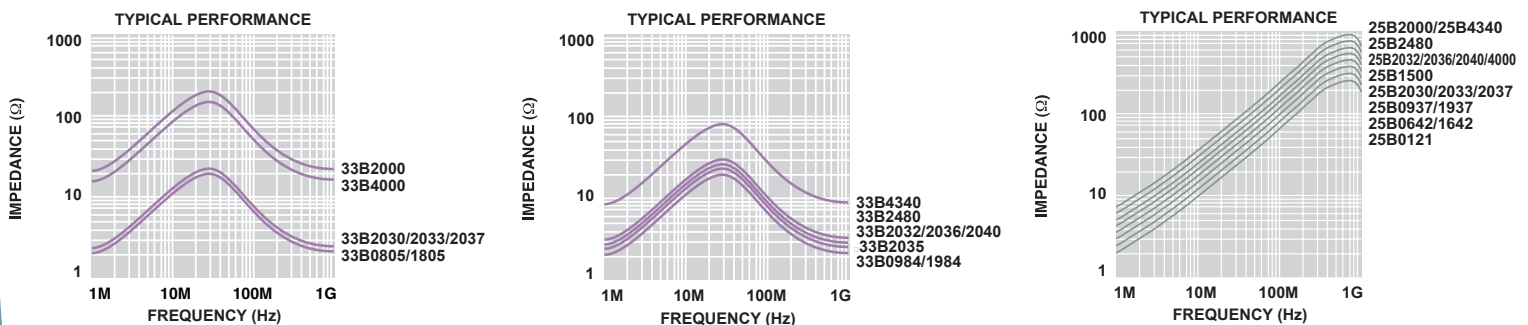
All of the impedance data below applies to the FerriShield® series which are specified by "28B" or the following alpha prefixes: TC, CS, CA, CW, CF, CV, FA, FF, FD, FX, IL, BA, BC, ET, SE, SA, PM, JB, CG, UG, HF, HI, HW, HA, SM, WC, CC, AC, PC, HC, HD, RC, RA, SF, SD, SS and USB. For specific performance by part number, find the alpha-numeric designation on the charts below according to the last seven digits of each catalog part number; i.e., for part number "CS28B1937" see "28B1937" on the chart.



## IMPEDANCE VS. FREQUENCY-#33 MATERIAL.

The #33 formulation of suppression material is specifically applicable from 1 to 30 MHz with a decreasing effect beyond that range. The part numbers shown below are standard items available from stock and are the most commonly used configurations for those frequencies. Other sizes are available by special order.

All of the impedance data below applies to the FerriShield® series which are specified by "33B" or the following alpha prefixes: TC, CS, CA, CW, CF, CV, FA, FF, FD, ET, RC, RA, SE, SA and SS. For specific performance by part number, find the alpha-numeric designation on the charts below according to the last seven digits of each catalog part number, i.e. for part number "SS33B2032" see "33B2032" on the chart.



## IMPEDANCE VS. FREQUENCY-#25 MATERIAL.

The #25 formulation of suppression material is designed to address frequencies resulting from microprocessor speeds above 100MHz and harmonics peak interference at 700MHz with some attenuation effect up to 1.2GHz. Most of the product styles in this catalog are available by special order within a convenient lead time.

Impedance data for standard stock items is shown below. They are available in the component assemblies with the following alpha prefixes: TC, CS, CA, CW, CF, CV, FA, FF, FD, ET, RC, RA, SE, SA, IL and SS.

All attenuation data is derived from tests using an HP4191A attenuation analyzer with spring clip or binding post fixturing, and does not include the test wire resistance. All impedance readings are shown at nominal  $\pm 10\%$  at 3 standard deviations from the mean.