

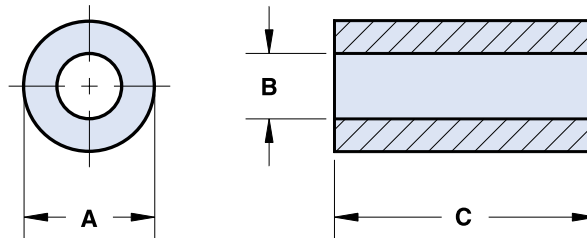
EMI Suppression Beads

Listed in ascending order of "B" dimension.

Fair-Rite offers a broad selection of EMI suppression beads with guaranteed impedance specifications over a wide frequency range.

- Beads with a "1" as the last digit of the part number are not burnished, those with the last digit "2" are supplied burnished to break the sharp edges.

- Beads can be supplied Parylene coated upon request. The last digit of the Parylene coated part number is a "4". The minimum coating thickness for beads is **0.005mm** (.0002"). See page 159 for material characteristics of Parylene C.



- The "H" column gives for each bead size the calculated dc bias field in oersted for 1 turn and 1 ampere direct current. The actual dc H field in the application is this value of "H" times the actual NI (ampere - turn) product. For the effect of the dc bias on the impedance of the bead material, see the graphs on pages 179-180, Figures 16-20.

- For typical impedance vs. frequency curves for these parts, see Figures 1-6.

- Beads are controlled for impedance limits only. They are tested for impedance with a single turn, using the Hewlett Packard HP 4193A Vector Impedance Meter for beads in 73, 31, and 43 material and the HP 4191A RF Impedance Analyzer for 61 material beads.

- For larger size cores, please refer to our Round Cable EMI Suppression Cores section found on pages 94-97.

- For any EMI suppression bead requirement not listed in the catalog, please contact our customer service group for availability and pricing.

- The EMI Suppression Bead Kit (part number 0199000019) contains a selection of these cores. See page 92.

Dimensions (Bold numbers are in millimeters, light numbers are nominal in inches.)

Typical Impedance(Ω)¹

Part Number**	A	B	C*	Wt (g)	H (Oe)	10 MHz	25 MHz	100 MHz	250 MHz
2673901301	0.95 - 0.05 .036	0.45+0.1 .020	3.8±0.2 .150	.01	6.0	16	24	-	-
2673903301	1.0 - 0.05 .038	0.45+0.15 .021	5.6±0.25 .220	.01	5.7	24	35	-	-
2673004601	1.1 - 0.1 .041	0.65+0.1 .028	4.1 - 0.3 .156	.01	4.7	12.5	19	-	-
2643004601	1.1 - 0.1 .041	0.65+0.1 .028	4.1 - 0.3 .156	.01	4.7	-	12.5	31	-
2673004701	1.45 - 0.15 .054	0.7+0.1 .029	2.3±0.15 .090	.01	4.0	12.5	17	-	-
2643004701	1.45 - 0.15 .054	0.7+0.1 .029	2.3±0.15 .090	.01	4.0	-	12.5	26	-
2643004101	3.5±0.2 .138	0.75+0.1 .031	4.45±0.35 .175	.11	2.6	-	48	70	-
2643004201	3.5±0.2 .138	0.75+0.1 .031	8.9±0.5 .350	.22	2.6	-	97	140	-

**Bold part numbers designate preferred parts.

*This dimension may be modified to suit specific applications.

¹ Guaranteed Z Min is Z Typ -20%

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Typical Impedance(Ω)¹

Part Number**	A	B	C*	Wt (g)	H (Oe)	10 MHz	25 MHz	100 MHz	250 MHz
2673030101	1.22 - 0.13 .045	0.8+0.1 .033	5.3 - 0.45 .200	.01	4.1	14	21	-	-
2673025301	1.25 - 0.1 .047	0.8+0.1 .033	3.8±0.2 .150	.01	4.0	10	15	-	-
2673010101	1.95 - 0.25 .072	0.8+0.1 .033	10.0 - 0.4 .384	.08	3.3	55	77	-	-
2643706001	3.5±0.25 .138	0.8+0.1 .033	2.7 - 0.45 .097	.06	2.5	-	26	45	-
2673025001	1.42±0.05 .056	0.85+0.1 .034	3.8±0.2 .150	.02	3.6	12.5	20	-	-
2643020501	1.65±0.025 .065	0.85+0.1 .034	3.68 - 0.25 .140	.02	3.4	-	17	31	-
2673004801	2.1 - 0.15 .080	0.85+0.1 .034	2.9 - 0.45 .105	.03	3.1	20	28	-	-
2643004801	2.1 - 0.15 .080	0.85+0.1 .034	2.9 - 0.45 .105	.03	3.1	-	18	31	-
2673028602	2.13 - 0.1 .082	0.85+0.1 .034	5.6±0.15 .220	.09	2.7	31	50	-	-
2673012401	1.55 - 0.1 .059	0.95+0.15 .040	4.2 - 0.25 .160	.02	3.3	11	19	-	-
2673002201	1.95 - 0.2 .072	1.05+0.1 .043	10.4±0.25 .410	.08	2.9	38	55	-	-
2643002201	1.95 - 0.2 .072	1.05+0.1 .043	10.4±0.25 .410	.08	2.9	-	34	58	-
2673000501	2.0 - 0.15 .076	1.05+0.1 .043	1.65 - 0.25 .060	.01	2.8	7.5	12	-	-
2643000501	2.0 - 0.15 .076	1.05+0.1 .043	1.65 - 0.25 .060	.01	2.8	-	9	22	-
2673000201	2.0 - 0.15 .076	1.05+0.1 .043	3.8±0.25 .150	.03	2.8	18	27	-	-
2643000201	2.0 - 0.15 .076	1.05+0.1 .043	3.8±0.25 .150	.03	2.8	-	16	31	-
2673000101	3.5±0.2 .138	1.3±0.1 .051	3.25±0.25 .128	.10	2.0	25	35	-	-
2643000101	3.5±0.2 .138	1.3±0.1 .051	3.25±0.25 .128	.10	2.0	-	26	40	-
2661000101	3.5±0.2 .138	1.3±0.1 .051	3.25±0.25 .128	.10	2.0	-	-	27.5	43
2673000301	3.5±0.2 .138	1.3±0.1 .051	6.0±0.25 .236	.18	2.0	44	62	-	-
2643000301	3.5±0.2 .138	1.3±0.1 .051	6.0±0.25 .236	.18	2.0	-	46	60	-

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Typical Impedance(Ω)¹

Part Number**	A	B	C*	Wt (g)	H (Oe)	10 MHz	25 MHz	100 MHz	250 MHz
2661000301	3.5±0.2 .138	1.3±0.1 .051	6.0±0.25 .236	.18	2.0	-	-	50	70
2673000701	3.5±0.2 .138	1.3±0.1 .051	12.7±0.35 .500	.38	2.0	87	125	-	-
2643000701	3.5±0.2 .138	1.3±0.1 .051	12.7±0.35 .500	.38	2.0	-	89	125	-
2661000701	3.5±0.2 .138	1.3±0.1 .051	12.7±0.35 .500	.38	2.0	-	-	125	170
2643200101	5.1±0.25 .200	1.45±0.25 .062	3.4 - 0.45 .125	.19	1.5	-	30	41	-
2673022401	5.1±0.25 .200	1.45±0.25 .062	6.35±0.25 .250	.38	1.5	54	58	-	-
2643022401	5.1±0.25 .200	1.45±0.25 .062	6.35±0.25 .250	.38	1.5	-	55	82	-
2661022401	5.1±0.25 .200	1.45±0.25 .062	6.35±0.25 .250	.38	1.5	-	-	56	85
2673021801	5.1±0.25 .200	1.45±0.25 .062	11.1±0.35 .437	.67	1.5	94	95	-	-
2643021801	5.1±0.25 .200	1.45±0.25 .062	11.1±0.35 .437	.67	1.5	-	96	131	-
2661021801	5.1±0.25 .200	1.45±0.25 .062	11.1±0.35 .437	.67	1.5	-	-	119	163
2643023801	5.1±0.25 .200	1.45±0.25 .062	22.85±0.75 .900	1.4	1.5	-	192	266	-
2661023801	5.1±0.25 .200	1.45±0.25 .062	22.85±0.75 .900	1.4	1.5	-	-	238	326
2643001501	3.5±0.2 .138	1.6±0.1 .063	3.25±0.25 .128	.10	1.7	-	21	35	-
2643025601	3.5±0.2 .138	1.6±0.1 .063	6.0±0.25 .236	.18	1.7	-	38	55	-
2643023201	2.85±0.1 .112	1.65±0.15 .068	3.75±0.25 .147	.06	1.8	-	15	30	-
2673018001	2.85±0.1 .112	1.65±0.15 .068	6.65±0.25 .262	.12	1.8	29	41	-	-
2673004901	2.85±0.1 .112	1.65±0.15 .068	10.45±0.25 .410	.18	1.8	40	58	-	-
2643013801	3.5±0.2 .138	1.65±0.25 .070	4.05±0.25 .160	.12	1.6	-	24	38	-
2673001601	3.55±0.15 .140	1.65±0.25 .070	3.3 - 0.4 .122	.09	1.6	16	24	-	-
2643001601	3.55±0.15 .140	1.65±0.25 .070	3.3 - 0.4 .122	.09	1.6	-	19	30	-

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Typical Impedance(Ω)¹

Part Number**	A	B	C*	Wt (g)	H (Oe)	10 MHz	25 MHz	100 MHz	250 MHz
2643001301	3.55±0.15 .140	1.65±0.25 .070	5.95±0.25 .234	.18	1.6	-	31	48	-
2673015301	4.1 - 0.25 .156	1.8±0.15 .071	6.85±0.25 .270	.26	1.5	41	54	-	-
2643005701	5.1±0.25 .200	2.3±0.2 .090	12.7±0.35 .500	.81	1.2	-	78	120	-
2673000801	7.5±0.25 .296	2.25±0.25 .094	7.55±0.25 .297	1.0	1.0	48	52	-	-
2643000801	7.5±0.25 .296	2.25±0.25 .094	7.55±0.25 .297	1.0	1.0	-	63	92	-
2643300101	7.6±0.25 .300	2.25±0.25 .094	15.1±0.75 .595	2.1	1.0	-	115	200	-
2673200201	5.2±0.15 .205	2.65±0.25 .105	20.6±0.75 .812	1.3	1.1	88	125	-	-
2673003201	5.6 - 0.5 .210	2.65±0.25 .105	12.7±0.5 .500	.87	1.1	59	85	-	-
2643003201	5.6 - 0.5 .210	2.65±0.25 .105	12.7±0.5 .500	.87	1.1	-	63	88	-
2643250402	6.35±0.15 .250	2.95±0.45 .125	12.7±0.5 .500	1.2	.91	-	69	102	-
2643250302	6.35±0.15 .250	2.95±0.45 .125	15.9±0.5 .625	1.5	.91	-	85	122	-
2631250202	6.35±0.15 .250	2.95±0.45 .125	25.4±0.75 1.000	2.5	.91	90	138	230	-
2643250202	6.35±0.15 .250	2.95±0.45 .125	25.4±0.75 1.000	2.5	.91	-	135	200	-
2643375102	9.5±0.25 .375	4.5±0.75 .192	6.35±0.35 .250	1.4	.60	-	35	50	-
2643375002	9.5±0.25 .375	4.5±0.75 .192	14.5±0.6 .570	3.1	.60	-	78	115	-
2643006302	9.5±0.25 .375	4.75±0.3 .193	10.4±0.25 .410	2.2	.60	-	53	80	-
2643023402	9.5±0.25 .375	4.75±0.3 .193	15.9±0.45 .625	3.4	.60	-	83	120	-
2643023002	9.5±0.25 .375	4.75±0.3 .193	19.05±0.7 .750	4.1	.60	-	100	145	-
2673002402	9.65±0.25 .380	5.0±0.2 .197	5.05 - 0.45 .190	1.1	.59	19	20	-	-
2643002402	9.65±0.25 .380	5.0±0.2 .197	5.05 - 0.45 .190	1.1	.59	-	26	43	-
2643012702	9.65±0.25 .380	6.35±0.15 .250	7.35±0.25 .290	1.3	.51	-	24	38	-

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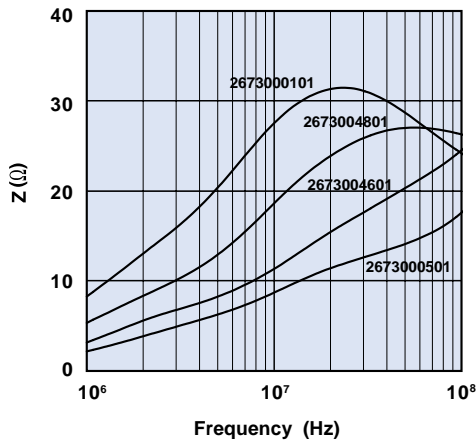


Figure 1 Impedance vs. Frequency for 73 material EMI suppression beads.

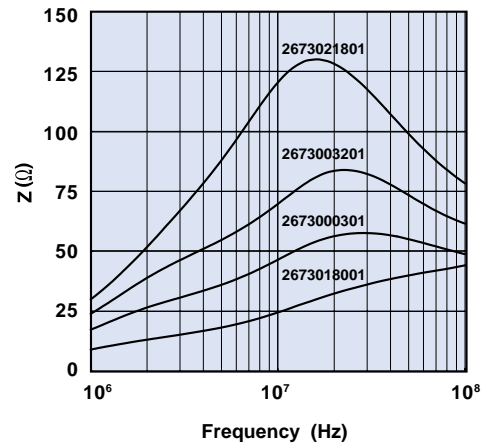


Figure 2 Impedance vs. Frequency for 73 material EMI suppression beads.

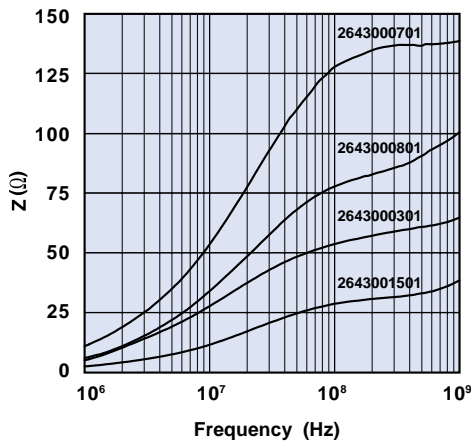


Figure 3 Impedance vs. Frequency for 43 material EMI suppression beads.

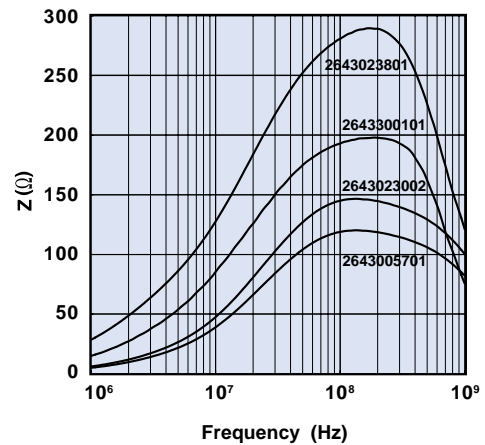


Figure 4 Impedance vs. Frequency for 43 material EMI suppression beads.

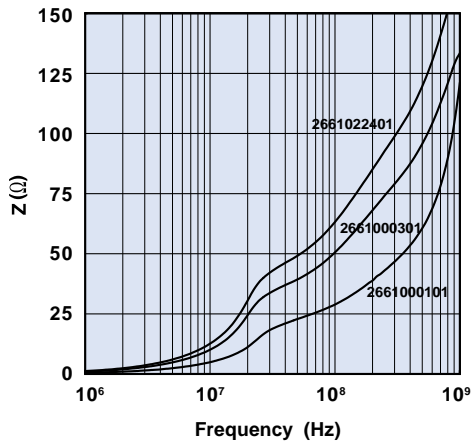


Figure 5 Impedance vs. Frequency for 61 material EMI suppression beads.

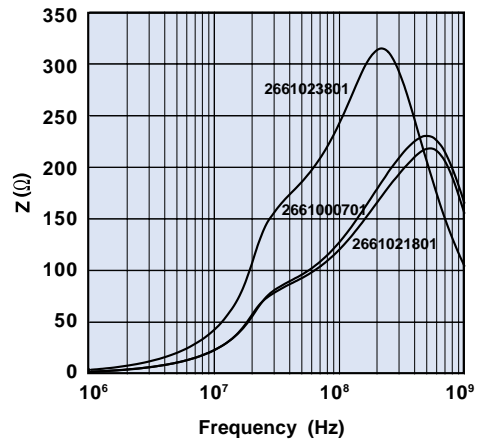


Figure 6 Impedance vs. Frequency for 61 material EMI suppression beads.