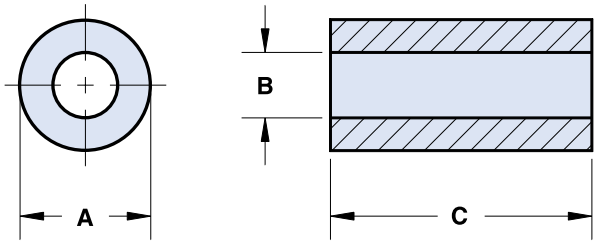
EMI Suppression Beads

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	–

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EMI Suppression Beads

Listed in ascending order of "B" dimension.

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

Part Number**	A	B	C*	Wt (g)	H (Oe)	Typical Impedance(Ω) [1] 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	–

***Bold part numbers designate preferred parts.*

**This dimension may be modified to suit specific applications.*

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EMI Suppression Beads

Listed in ascending order of "B" dimension.

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

Part Number**	A	B	C*	Wt (g)	H (Oe)	Typical Impedance(Ω) [1] 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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EMI Suppression Beads

Listed in ascending order of "B" dimension.

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
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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EMI Suppression Beads

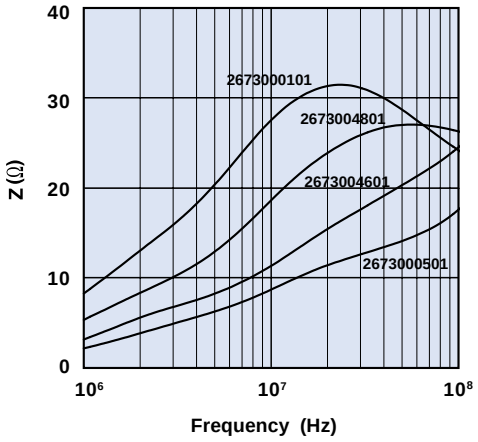

Figure 1 Impedance vs. Frequency for 73 material EMI suppression beads.

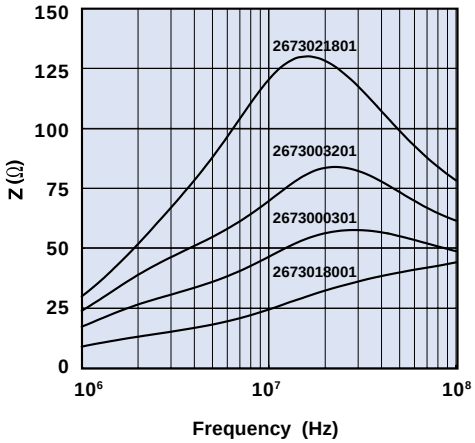

Figure 2 Impedance vs. Frequency for 73 material EMI suppression beads.

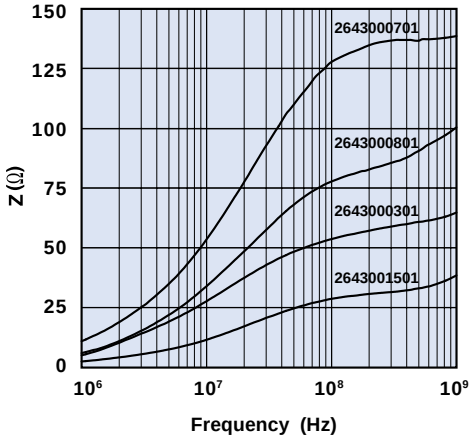

Figure 3 Impedance vs. Frequency for 43 material EMI suppression beads.

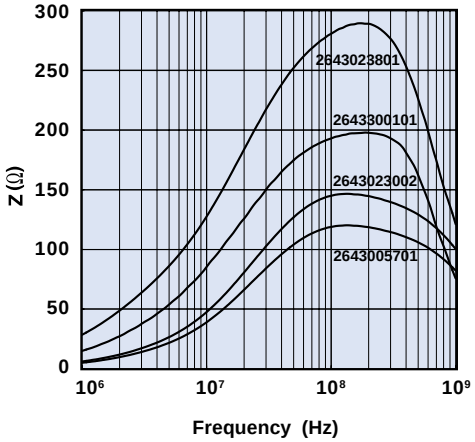

Figure 4 Impedance vs. Frequency for 43 material EMI suppression beads.

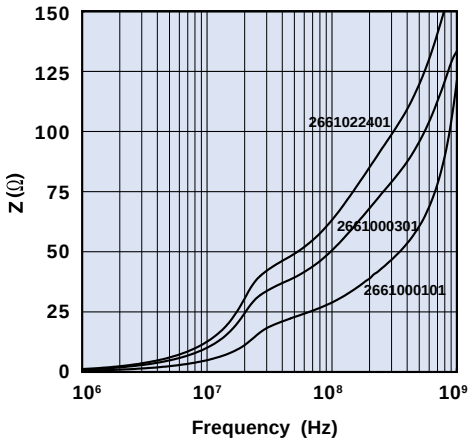

Figure 5 Impedance vs. Frequency for 61 material EMI suppression beads.

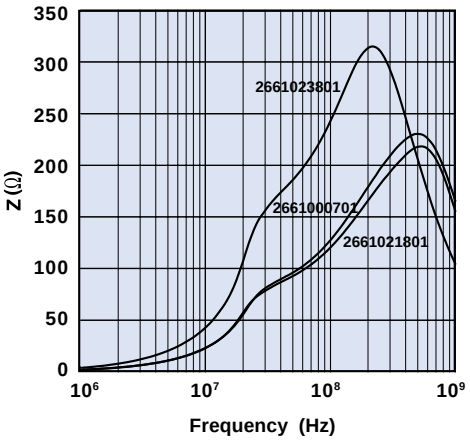

Figure 6 Impedance vs. Frequency for 61 material EMI suppression beads.

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