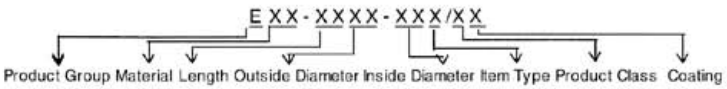
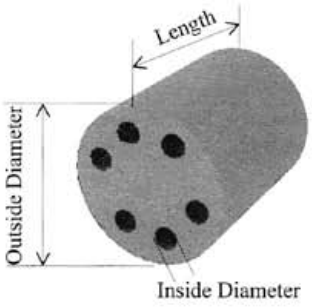
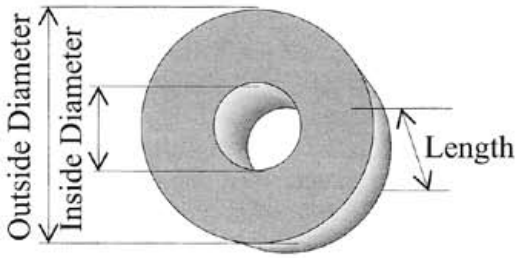
Product Group E : Bead Cores



Ferrite beads are very similar in shape to toroids. The greatest distinguishing characteristic of beads is the application in which they are used. Beads generally have a length to outside diameter ratio greater than one. The most popular uses of ferrite beads are as EMI suppressors. They can be placed over the leads of an electrical component to prevent spurious signals. This application dictates that impedance rather than inductance be controlled. Thus bead specifications will often reference inductance but have a definite impedance minimum. Beads are offered in a variety of materials and can be manufactured in any of MMG's materials in order to optimize the part for a given application.

Core Part No.	Units	Length	Outside Diameter	Inside Diameter	C_1 (cm)	L_e (cm)	A_e (cm)	V_e (cm)
E__-1420-100/1	in	0.039	0.070	0.035	91.5	0.3672	0.00423	0.00164
	mm	0.991	1.778	0.889				
E__-3D4N-290/1	in	0.118	0.163	0.079	28.9	0.8860	0.03061	0.02712
	mm	2.997	4.140	2.007				
E__-3K4N-190/1	in	0.125	0.163	0.062	20.5	0.7718	0.03770	0.02909
	mm	3.175	4.140	1.575				
E__-3K4N-110/1	in	0.125	0.163	0.063	20.8	0.7790	0.03742	0.02915
	mm	3.175	4.140	1.600				
E__-3N3Y-0X0/1	in	0.128	0.138	0.032	13.2	0.4859	0.03674	0.01785
	mm	3.251	3.505	0.813				
E__-383Y-1E0/1	in	0.113	0.138	0.049	21.1	0.6278	0.02969	0.01864
	mm	2.870	3.505	1.245				
E__-7V4N-2G0/1	in	0.275	0.163	0.086	14.1	0.9289	0.06603	0.06133
	mm	6.985	4.140	2.184				
E__-EAAQ-5C0/1	in	0.500	0.375	0.187	7.1	2.0711	0.29126	0.60326
	mm	12.700	9.525	4.750				
E__-EAEA-870/1	in	0.500	0.500	0.287	8.9	2.9843	0.33486	0.99933
	mm	12.700	12.700	7.290				
E__-X5G2-750/1	in	1.125	0.562	0.250	2.7	2.9108	1.07232	3.12131
	mm	28.575	14.275	6.350				
E__-6R3Y-1C0/1	in	0.236	0.138	0.047	9.7	0.6126	0.06295	0.03856
	mm	5.994	3.505	1.194				
E__-4K5Q-1F0/1	in	0.160	0.200	0.050	11.2	0.7375	0.06613	0.04877
	mm	4.064	5.080	1.270				
E__-8F6Q-2V0/1	in	0.400	0.200	0.100	8.9	1.1062	0.12399	0.13716
	mm	10.160	5.080	2.540				
E__-754N-190/1	in	0.250	0.163	0.062	10.2	0.7718	0.07540	0.05819
	mm	6.350	4.140	1.575				
E__-3N3Y-1C0/1	in	0.128	0.138	0.047	17.9	0.6126	0.03414	0.02092
	mm	3.251	3.505	1.194				
E__-3N3Y-1G0/1	in	0.128	0.138	0.051	19.4	0.6426	0.03310	0.02127
	mm	3.251	3.505	1.295				
E__-3N3Y-190/1	in	0.128	0.138	0.062	24.2	0.7188	0.02976	0.02139
	mm	3.251	3.505	1.575				
E__-4K4Q-1F0/1	in	0.160	0.200	0.050	11.2	0.7375	0.06613	0.04877
	mm	4.064	5.080	1.270				
E__-4K5Q-2V0/1	in	0.160	0.200	0.100	22.3	1.1062	0.04960	0.05486
	mm	4.064	5.080	2.540				
E__-4Y3Y-0X0/1	in	0.173	0.138	0.032	9.8	0.4859	0.04966	0.02413
	mm	4.394	3.505	0.813				
E__-5Q64-400/1	in	0.200	0.214	0.140	29.1	1.3709	0.04703	0.06448
	mm	5.080	5.436	3.556				
E__-755F-2H0/1	in	0.250	0.190	0.087	12.7	1.0003	0.07897	0.07899
	mm	6.350	4.826	2.210				
E__-755F-2K0/1	in	0.250	0.190	0.090	13.2	1.0196	0.07700	0.07850
	mm	6.350	4.826	2.286				
E__-758X-1F0/1	in	0.250	0.312	0.050	5.4	0.8699	0.16098	0.14004
	mm	6.350	7.925	1.270				
E__-9C3Y-0X0/1	in	0.327	0.138	0.032	5.2	0.4859	0.09387	0.04561
	mm	8.306	3.505	0.813				
E__-AQ3Y-1G0/1	in	0.375	0.138	0.051	6.6	0.6426	0.09697	0.06231
	mm	9.525	3.505	1.295				
E__-B96R-106/1	in	0.394	0.236	0.035	8.5	0.0888	0.01040	0.00092
	mm	10.008	5.994	0.889				
E__-8F60-1H0/1	in	0.400	0.210	0.052	4.4	0.7698	0.17376	0.13376
	mm	10.160	5.334	1.321				
E__-8F75-250/1	in	0.400	0.250	0.075	5.1	1.0294	0.20040	0.20626
	mm	10.160	6.350	1.905				
E__-CH5Q-190/1	in	0.437	0.200	0.062	4.8	0.8398	0.17374	0.14590
	mm	11.100	5.080	1.575				
E__-EAAK-3K0/1	in	0.500	0.370	0.125	4.6	1.6347	0.35856	0.58614
	mm	12.700	9.398	3.175				





CORE P/N	Init perm	F31	F01	FA1	F52	F53	FB2	F82	FTA
	Znorm	15	120	370	850	1050	2000	5000	10000
		17	72	575	75	75	150	220	270
E_ _-1420-100/1	A_L	2.1	16.5	50.8	116.8	144.2	274.7	686.8	1373.6
	Z Typical	0.2	0.8	6.3	0.8	0.8	1.6	2.4	3.0
E_ _-3D4N-290/1	A_L	6.5	52.1	160.7	369.1	456.0	868.6	2171.4	4342.8
	Z Typical	0.6	2.5	19.9	2.6	2.6	5.2	7.6	9.3
E_ _-3K4N-1S0/1	A_L	9.2	73.7	227.2	521.9	644.6	1227.9	3069.8	6139.5
	Z Typical	0.8	3.5	28.1	3.7	3.7	7.3	10.7	13.2
E_ _-3K4N-1T0/1	A_L	9.1	72.5	223.4	513.2	634.0	1207.6	3018.9	6037.9
	Z Typical	0.8	3.5	27.6	3.6	3.6	7.2	10.6	13.0
E_ _-3N3Y-0X0/1	A_L	14.3	114.1	351.7	808.0	998.1	1901.1	4752.9	9505.7
	Z Typical	1.3	5.4	43.5	5.7	5.7	11.3	16.6	20.4
E_ _-383Y-1E0/1	A_L	8.9	71.3	220.0	505.3	624.3	1189.1	2972.6	5945.3
	Z Typical	0.8	3.4	27.2	3.5	3.5	7.1	10.4	12.8
E_ _-7V4N-2G0/1	A_L	13.4	107.2	330.6	759.4	938.1	1786.9	4467.3	8934.6
	Z Typical	1.2	5.1	40.9	5.3	5.3	10.7	15.6	19.2
E_ _-EAAQ-5C0/1	A_L	26.5	212.1	654.1	1502.6	1856.2	3535.6	8839.0	17678.1
	Z Typical	2.4	10.1	80.9	10.5	10.5	21.1	30.9	38.0
E_ _-EAEA-870/1	A_L	21.2	169.2	521.8	1198.8	1480.9	2820.7	7051.8	14103.7
	Z Typical	1.9	8.1	64.5	8.4	8.4	16.8	24.7	30.3
E_ _-X5G2-750/1	A_L	69.5	555.7	1713.3	3935.9	4862.0	9261.0	23152.6	46305.2
	Z Typical	6.3	26.5	211.8	27.6	27.6	55.3	81.0	99.5
E_ _-6R3Y-1C0/1	A_L	19.4	155.0	477.9	1097.9	1356.2	2583.3	6458.2	12916.4
	Z Typical	1.7	7.4	59.1	7.7	7.7	15.4	22.6	27.7
E_ _-4K5Q-1F0/1	A_L	16.9	135.2	417.0	958.0	1183.4	2254.1	5635.3	11270.6
	Z Typical	1.5	6.5	51.6	6.7	6.7	13.4	19.7	24.2
E_ _-BF5Q-2V0/1	A_L	21.1	169.1	521.3	1197.5	1479.3	2817.6	7044.1	14088.2
	Z Typical	1.9	8.1	64.4	8.4	8.4	16.8	24.7	30.3
E_ _-754N-1S0/1	A_L	18.4	147.3	454.3	1043.7	1289.3	2455.8	6139.5	12279.0
	Z Typical	1.7	7.0	56.2	7.3	7.3	14.7	21.5	26.4
E_ _-3N3Y-1C0/1	A_L	10.5	84.1	259.2	595.5	735.6	1401.1	3502.7	7005.5
	Z Typical	0.9	4.0	32.0	4.2	4.2	8.4	12.3	15.0
E_ _-3N3Y-1G0/1	A_L	9.7	77.7	239.5	550.3	679.8	1294.9	3237.1	6474.3
	Z Typical	0.9	3.7	29.6	3.9	3.9	7.7	11.3	13.9
E_ _-3N3Y-1S0/1	A_L	7.8	62.4	192.5	442.3	546.4	1040.8	2602.0	5204.0
	Z Typical	0.7	3.0	23.8	3.1	3.1	6.2	9.1	11.2
E_ _-4K4Q-1F0/1	A_L	16.9	135.2	417.0	958.0	1183.4	2254.1	5635.3	11270.6
	Z Typical	1.5	6.5	51.6	6.7	6.7	13.4	19.7	24.2
E_ _-4K5Q-2V0/1	A_L	8.5	67.6	208.5	479.0	591.7	1127.1	2817.6	5635.3
	Z Typical	0.8	3.2	25.8	3.4	3.4	6.7	9.9	12.1
E_ _-4Y3Y-0X0/1	A_L	19.3	154.2	475.4	1092.0	1349.0	2569.5	6423.8	12847.6
	Z Typical	1.7	7.4	58.8	7.7	7.7	15.3	22.5	27.6
E_ _-5Q64-400/1	A_L	6.5	51.7	159.6	366.5	452.8	862.5	2156.1	4312.3
	Z Typical	0.6	2.5	19.7	2.6	2.6	5.1	7.5	9.3
E_ _-755F-2H0/1	A_L	14.9	119.1	367.1	843.4	1041.9	1984.5	4961.3	9922.6
	Z Typical	1.3	5.7	45.4	5.9	5.9	11.8	17.4	21.3
E_ _-755F-2K0/1	A_L	14.2	113.9	351.2	806.8	996.7	1898.4	4746.0	9491.9
	Z Typical	1.3	5.4	43.4	5.7	5.7	11.3	16.6	20.4
E_ _-758X-1F0/1	A_L	34.9	279.1	860.6	1977.0	2442.2	4651.8	11629.6	23259.1
	Z Typical	3.1	13.3	106.4	13.9	13.9	27.8	40.7	50.0
E_ _-9C3Y-0X0/1	A_L	36.4	291.4	898.5	2064.1	2549.8	4856.8	12142.1	24284.1
	Z Typical	3.3	13.9	111.1	14.5	14.5	29.0	42.5	52.2
E_ _-AQ3Y-1G0/1	A_L	28.5	227.6	701.8	1612.2	1991.6	3793.5	9483.8	18967.6
	Z Typical	2.6	10.9	86.8	11.3	11.3	22.6	33.2	40.7
E_ _-B96R-106/1	A_L	21.0	168.2	518.6	1191.5	1471.8	-	-	-
	Z Typical	3.6	15.3	122.4	16.0	16.0	-	-	-
E_ _-BF60-1H0/1	A_L	42.6	340.5	1049.7	2411.5	2978.9	5674.2	14185.5	28370.9
	Z Typical	3.8	16.3	129.8	16.9	16.9	33.9	49.7	60.9
E_ _-BF75-250/1	A_L	36.7	293.6	905.4	2080.0	2569.4	4894.1	12235.4	24470.7
	Z Typical	3.3	14.0	111.9	14.6	14.6	29.2	42.8	52.6
E_ _-CH5Q-1S0/1	A_L	39.0	312.1	962.2	2210.5	2730.6	5201.2	13003.1	26006.2
	Z Typical	3.5	14.9	119.0	15.5	15.5	31.0	45.5	55.9
E_ _-EAAK-3K0/1	A_L	41.4	330.8	1020.1	2343.5	2894.9	5514.1	13785.3	27570.6
	Z Typical	3.7	15.8	126.1	16.5	16.5	32.9	48.3	59.2