

**HIGH FREQUENCY MAG AMP CORES**

These cores specifically designed for this application. (5D = ½ mil permalloy, 1D = 1 mil permalloy, 1E = 1 mil Cobalt based amorphous material).

Part Number		DIMENSIONS						Core loss (w)@50KHz, 2000 gauss (Max.)	m/ cm	Ac cm <sup>2</sup>	Wa See Note 1	Core wt. grams	Wa Ac See Note 2
		I.D.		O.D.		Ht.							
		Core	case (Min.)	core	case (Max)	core	case (Max)						
50B10-5D	in.	.650	.580	.900	.970	.125	.200	.118	6.18	.051	348,000	2.7	.0177
	mm	16.5	14.7	22.9	24.6	3.18	5.08						
50B10-1D								.220		.076	1.76	4.0	.0897
50B10-1E								.092		.076		3.5	.0264
50B11-5D	in.	.500	.430	.625	.695	.125	.200	.044	4.49	.025	194,000	1.0	.0048
	mm.	12.7	10.9	15.9	17.6	3.18	5.08						
50B11-1D								.083		.038	.984	1.5	.0243
50B11-1E								0.34		0.38		1.3	.0375
50B12-5D	in.	.375	.305	.500	.570	.125	.200	.035	3.49	0.25	99,000	.8	.0025
	mm.	9.53	7.75	12.7	14.5	3.18	5.08						
50B12-1D								.066		.38	.50	1.2	.0127
50B12-1E								.027		.038		1.04	.0038
20B45-5D	in.	.500	.430	.750	.820	.250	.325	.194	4.99	.101	194,000	4.4	.0143
	mm.	12.7	10.9	19.1	20.8	6.35	8.26						
50B45-1D								.363		.151	.984	6.6	.0725
50B45-1E								.149		.151		5.7	.0214
50B66-5D	in.	.500	.430	.750	.820	.125	.200	.097	4.99	.050	194,000	2.2	.0071
	mm.	12.7	10.9	19.1	20.8	3.18	5.08						
50B66-1D								.182		.076	.984	3.3	.0360
50B66-1E								.075		.076		2.9	.0108

(1) Top no.= circ. Mils.  
Bottom no =cm<sup>2</sup>

(2) Top no.= circ. Mils. X<sup>2</sup>cm x10<sup>6</sup>  
Bottom no= cm<sup>4</sup>

Above "50000" series cores are provided in nylon boxes. "1E" cores can be supplied in "54000" series (encapsulated, no box). Dimensions of the 54000 series cores are as shown at right.

Additional "1E" encapsulated cores are listed on p. 3

CORE		I.D (min.)	O.D (max.)	Ht (max.)	Wa (seeNote 1)
54B10	in.	.0610	.0940	.175	372,000
	mm.	15.5	23.9	4.45	1.89
54B11	in.	.460	.665	.175	211,600
	mm.	11.7	16.9	4.45	1.07
54B12	In	.335	.540	.175	112,225
	mm.	8.51	13.7	4.45	.569
54B45	in.	.460	.790	.300	211,600
	Mm	11.7	20.1	7.62	1.07
54B66	in.	.460	.790	.175	211,600
	mm.	11.7	20.1	4.45	1.07

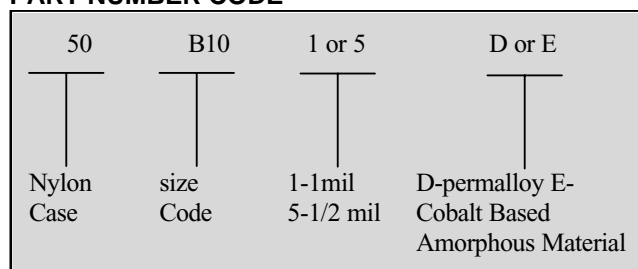
(1) (Top no.= circ. Mils  
Bottom no. = cm2

**COBALT BASED AMORPHOUS MATERIAL  
HIGH FREQUENCY MAG AMP CORES (encapsulated)**

Part Number		DIMENSIONS						Core loss (w)@50KHz, 2000 gauss (Max.)	m/ cm	Ac cm <sup>2</sup>	Wa See Note 1	Core wt. grams	Wa Ac See Note 2
		I.D.		O.D.		Ht.							
		Core	coated	core	coated	core	coated						
(54C90-1E)	in.	.312	.272	.500	.540	.188	.238	.055	3.24	.085	97,000	2.09	.008
	mm.	(7.92)	(6.91)	(12.7)	(13.7)	(4.77)	(6.05)				(.491)		(.041)
54C70-1E	in.	.375	.335	.500	.540	.188	.238	.040	3.49	.057	141,000	1.51	.008
	mm.	9.53	8.51	12.7	13.7	4.77	6.05				.715		.041
54D26-1E	in.	.375	.335	.547	.587	.188	.238	.061	3.67	.083	141,000	2.31	.012
	mm.	9.53	8.51	13.9	14.9	4.77	6.05				.715		.061
54D27-1E	in.	.375	.335	.594	.634	.188	.238	.085	3.87	.110	141,000	3.23	.016
	mm.	9.53	8.51	15.1	16.1	4.77	6.05				.715		.081
54C91-1E	in.	.375	.335	.625	.665	.188	.238	.090	3.99	.113	141,000	3.42	.016
	mm.	9.53	8.51	15.9	16.9	4.77	6.05				.715		.081
54319-1E	in.	.375	.335	.625	.665	.250	.300	.119	3.99	.150	141,000	4.52	.021
	mm.	9.53	8.51	15.9	16.9	6.35	7.62				.715		1.06
54C88-1E	in.	.500	.460	.590	.630	.188	.238	.034	4.35	.040	250,000	1.32	.010
	mm.	12.7	11.7	15	16	4.77	6.05				1.27		.117
54942-1E	in.	.500	.460	.700	.740	.188	.238	.873	4.79	.091	250,000	3.30	.23
	mm.	12.7	11.7	17.8	18.8	4.77	6.05				1.27		.117
54632-1E	in.	.500	.460	.750	.790	.188	.238	.113	4.99	.113	250,000	4.27	.28
	mm.	12.7	11.7	19.1	20	4.77	6.05				1.27		.142
54904-1E	in.	.500	.460	.750	.790	.312	.362	.188	4.99	.188	250,000	7.11	.047
	mm.	12.7	11.7	19.1	20	9.19	7.92				1.27		.239
54C89-1E	in.	.550	.510	.825	.865	.188	.238	.137	5.48	1.25	303,000	5.19	.038
	mm.	13.97	12.9	21	22	4.77	6.05				1.54		1.93
54094-1E	in.	.625	.585	1,000	1,040	.375	.425	.440	6.48	.339	391,000	16.64	.133
	mm.	15.88	14.9	25.4	26.4	9.53	10.8				1.98		.674
54C92-1E	in.	.688	.648	.875	.915	.188	.238	.106	6.23	.085	473,000	4.01	.040
	mm.	17.48	16.5	22.23	23.2	4.77	6.05				2.40		.203
54168-1E	in.	.750	.710	1,000	1,040	.375	.425	.316	6.98	.226	563,000	11.95	.127
	mm.	19.05	.18	25.4	26.4	9.53	10.8				2.85		.644
54C17-1E	in.	.800	.760	1,205	1,245	.375	.425	.586	8.00	.366	640,000	22.18	.234
	mm.	20.32	19.3	30.61	31.6	9.53	10.8				3.24		1.19
54029-1E	in.	1,000	.960	1,375	1,415	.250	.300	.505	9.47	.226	1,000,000	19.08	.226
	mm.	25.4	24.4	34.93	35.9	6.35	7.62				5.07		1.15
54932-1E	in.	1,000	.960	1,625	1,665	.625	.675	1.98	10.47	.942	1,000,000	74.71	.942
	mm.	25.4	24.4	41.28	42.3	15.88	17.1				5.07		4.78

(1) Top no.= circ. Mils. Bottom no =cm<sup>2</sup> (2) Top no.= circ. Mils. X cm<sup>2</sup> x10<sup>6</sup> Bottom no= cm<sup>4</sup>

**PART NUMBER CODE**

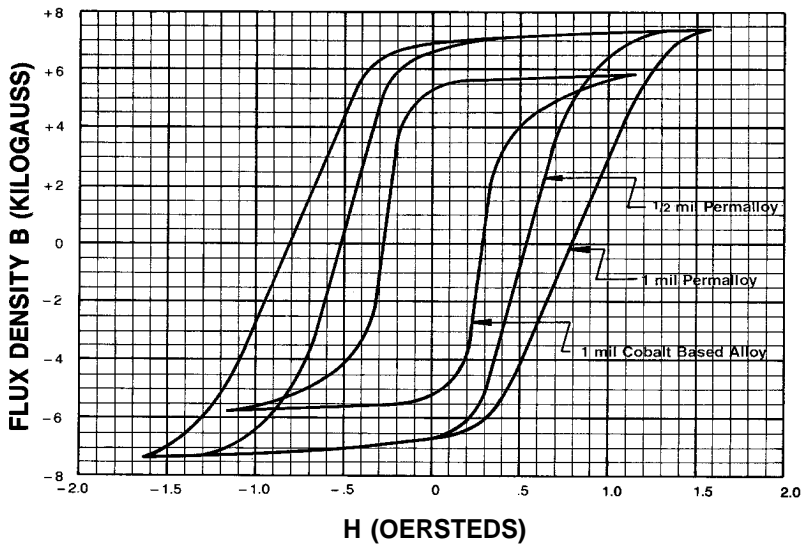


**MATERIAL CHARACTERISTICS**

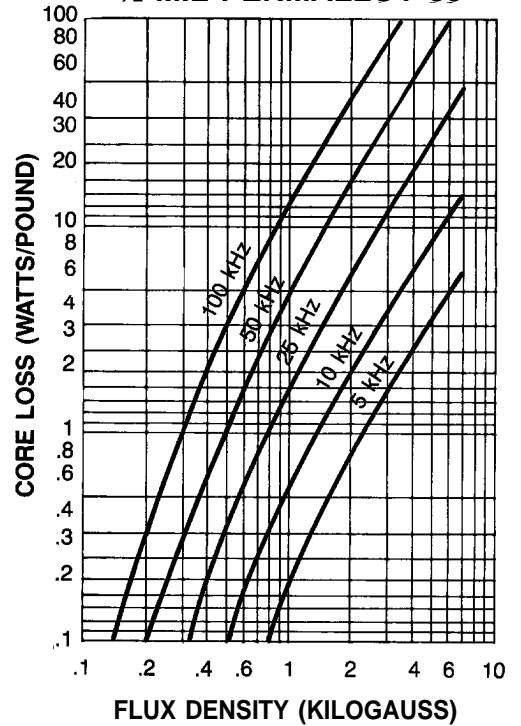
	Alloy 2714A	½ mil Permalloy	1 mil Permalloy
Bm (gauss min.)	5000	7000	7000
Br/Bm (min)**	.9	.83	.80
H1 (oersted max.)**	.025	.045	.045
Core loss(w/lb. Max. @ 50 kHz, 2000 gauss)	12	20	25

\*\* Measured @ 400 Hz, CCFR Test

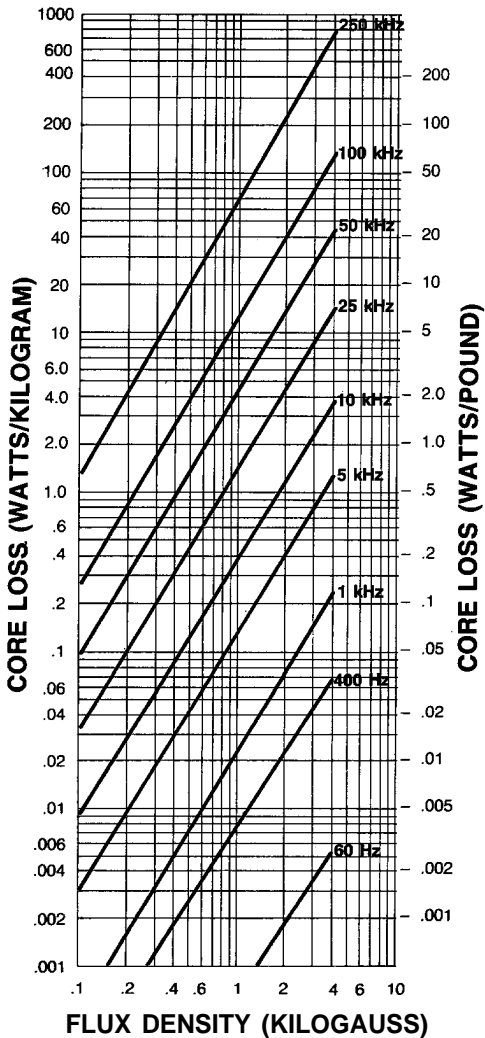
100 kHz B—H LOOPS PERMALLOY AND COBALT BASED AMORPHOUS MATERIAL



TYPICAL CORE LOSS — 1/2 MIL PERMALLOY 80



TYPICAL CORE LOSS — AMORPHOUS MATERIAL-COBALT BASED



TYPICAL CORE LOSS — 1 MIL PERMALLOY 80

