E, I, U Cores

E, I, U CORES

E cores are less expensive than pot cores, and have the advantage of simple bobbin winding plus easy assembly. E cores do not, however, offer self-shielding. Lamination size E cores are available to fit commercially offered bobbins previously designed to fit the strip stampings of standard lamination sizes. Metric and DIN sizes are also available. E cores can be pressed to different thicknesses, providing a selection of cross-sectional areas. Bobbins for these different cross sections are often available commercially.

E cores can be mounted in different directions and, if desired, provide a low profile. Printed circuit bobbins are available for low profile mounting. Typical applications for E cores include differential, power and telecom inductors, as well as, broadband, power, converter and inverter transformers.

U cores, which offer a larger window/cross-sectional area, provide more power handling capability than E cores of the same size. Typical applications are similar to E cores.

HOW TO ORDER

C	R	4	14	34	EC	XX

SHAPE CODE

FERRITE CORE MATERIAL

USED FOR ALL FERRITE TYPES

APPROXIMATE DIAMETER IN MM

APPROXIMATE HEIGHT IN MM

GEOMETRY CODE/GAP CODE
(SEE PAGE 1.5)

SPECIAL SPECIFICATION CODE

SHAPE CODE

0 – Standard
C – Planar E core with clip recesses
F – Planar E core option: no clip recesses

GEOMETRY CODE

EC – All E cores including ETD, EC, ER, EER, EEM, EFD, planar and lamination sizes
IC – I cores
UC – U cores

GAP CODE – see page 1.5

Note – Standard gap codes do not apply to U cores, I cores and some EI combinations.

Cores are sold per piece (for sets multiply by 2). Gapped pieces are normally packed separately from ungapped pieces. If desired in sets, this must be specified.

E, I Core Data (ungapped)

Any practical gap available. See pages 1.8-1.11

			MECHANICAL DIMENSIONS (mm)							
PART	**CORE TYPE**	**FIG.**	**A**	**B**	**C**	**D**	**E**	**F**	**L**	**M**
0_41203EC	Lam E2829	**1**	12.7 ± .25	5.69 ± .18	3.18 ± .13	3.96 min	9.19 min	3.18 ± .08	1.57 nom	3.05 min
0_41205EC Double stack	Lam E2829	**1**	12.7 ± .25	5.69 ± .18	6.4 ± .15	3.96 min	9.2 min	3.2 ± .13	1.57 ref	3.05 min
0_41707EC	Lam E3233	**1**	16.8 ± .38	7.11 ± .18	3.56 ± .12	3.94 min	10.4 min	3.56 ± .13	2.79 nom	3.63 min
0_41808EC	Lam EI187	**1**	19.1 ± .4	8.1 ± .13	4.75 ± .2	5.7 ± .13	14.33 ± .33	4.75 ± .2	2.38 nom	4.79 nom
0_41810EC Double stack	Lam EI187	**1**	19.3 ± .4	8.1 ± .18	9.53 ± .13	5.7 min	14 min	4.75 ± .2	2.38 ref	4.89 ref
0_42510EC	Lam E2425	**1**	25.4 ± .6	9.65 ± .2	6.35 ± .25	6.4 min	18.8 min	6.25 ± .25	3.3 nom	6.1 min
0_42513EC	EF25	**1**	25 + .8, - .7	12.8 + 0, - .4	7.5 + 0, - .6	8.7 + .6, - 0	17.5 + .9, - 0	7.5 + 0, - .5	3.55 ref	5.35 ref
0_42515EC	Lam EL2425	**1**	25.4 ± .38	15.9 ± .25	6.35 ± .25	12.6 min	18.8 min	6.35 ± .13	3.12 ± .13	6.4 ± .25
0_42515IC	I core	**2**	26.4 ± .38	3.18 ± .12	7.37 ± .25	-	-	-	-	-
0_42520EC Double stack	Lam E2425	**1**	25.4 ± .6	9.65 ± .2	12.7 ± .25	6.4 min	18.8 min	6.35 ± .25	3.6 max	6.1 min

To order, add material code to part number.

FIGURE 1

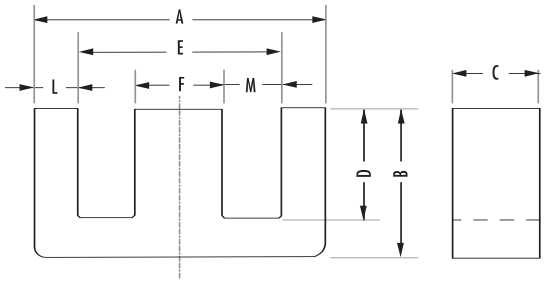
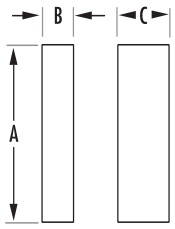


FIGURE 2



E, I Core Data (ungapped)

A_L (mH/1000T) min

		POWER MATERIALS			HIGH PERMEABILITY MATERIALS		MAGNETIC DATA					
PART	COMB.	R	P	F*	J	W	l_e (mm)	A_e (mm^2)	A min (mm^2)	V_e (mm^3)	CORE WEIGHT (grams per set)	WαAc (cm^4)
0_41203EC	E-E	440	480	770	1,025	-	27.8	10.1	10.1	279	1.3	0.01
0_41205EC	E-E	1,100	1,200	1,950	2,475	-	27.7	20.2	20	558	2.6	0.03
0_41707EC	E-E	760	825	1,300	1,425	-	30.4	16.6	12.6	505	3.0	0.03
0_41808EC	E-E	865	940	1,500	1,875	3,220	39.9	22.6	22.1	900	4.4	0.07
0_41810EC	E-E	1,725	1,875	3,000	3,750	7,420	40.1	45.5	45.4	1,820	8.5	0.15
0_42510EC	E-E	1,325	1,440	2,300	2,775	4,635	49	39.5	37	1,930	9.5	0.16
0_42513EC	E-E	1,425	1,736	2,460	3,000	-	57.8	51.8	51.8	2,990	16	-
0_42515EC	E-E	865	940	1,500	1,800	3,080	73.5	40.1	39.7	2,950	15	0.42
0_42515IC	E-I	1,320	1,435	2,290	2,750	4,690	48.1	40.1	39.7	1,930	10	0.21
0_42520EC	E-E	2,650	2,880	4,600	5,500	10,360	48	78.4	76.8	3,760	19	0.4

* F material nominal ± 25%

AVAILABLE HARDWARE	STANDARD BOBBIN	SURFACE MOUNT BOBBIN	PRINTED CIRCUIT BOBBIN
0_41203EC		✓	
0_41808EC	✓		
0_42510EC	✓		✓
0_42515EC	✓		
0_42520EC			✓

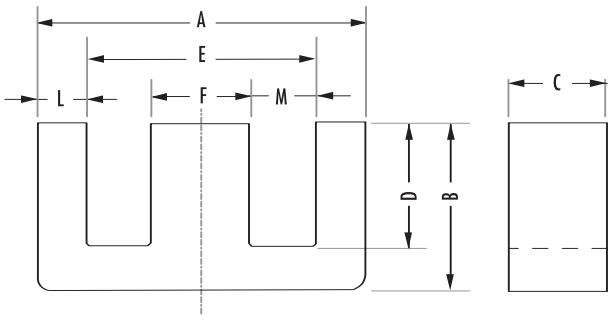
E, I Core Data (ungapped)

Any practical gap available. See pages 1.8-1.11

			MECHANICAL DIMENSIONS (mm)							
PART	**CORE TYPE**	**FIG.**	**A**	**B**	**C**	**D**	**E**	**F**	**L**	**M**
0_42526EC		**1**	25 + .8, - .7	12.8 + 0, - .5	11+ 0, - .5	8.7 + .5, - 0	17.5 + 1, - 0	7.5 + 0, - .5	3.53 ref	5.37 ref
0_42530EC Double stack	EL2425	**1**	25.4 ± .38	15.9 ± .25	12.7 ± .25	12.6 min	18.8 min	6.35 ± .13	3.12 ± .13	6.4 ± .25
0_43007EC	DIN 30/7	**1**	30.8 + 0, - 1.4	15.01 ± .2	7.3 + 0, - .5	9.71 + .5, - 0	19.5	7.2 + 0, - .5	5.65 nom	6.15 nom
0_43009EC	Lam E2627	**1**	30.95 ± .5	13.1 ± .25	9.4 ± .3	8.5 min	21.41 min	9.4 ± .13	4.29 nom	6.0 min
0_43515EC	Lam EI375	**1**	34.2 ± .6	14.1 ± .15	9.3 ± .25	9.8 ± .13	25.5 min	9.3 ± .2	4.7 max	8.0 min
0_43520EC	E core	**1**	34.9 ± .38	20.62 ± .25	9.53 ± .18	15.6 min	25.1 min	9.53 ± .25	4.75 ± .25	7.95 nom
0_44011EC	Metric E40	**1**	40.01 ± .51	17 ± .31	10.69 ± .31	10 min	27.6 min	10.7 ± .31	5.99 ± .25	8.86 nom
0_44016EC	E core	**1**	42.15 ± .85	21.1 ± .2	9 ± .25	14.9 min	29.5 min	11.95 ± .25	5.94 ± .13	8.9 ± .25
0_44020EC	DIN 42/15	**1**	43 + 0, - 1.7	21 ± .2	15.2 + 0, - .6	14.8 + .6, - 0	29.5 + 1.4, - 0	12.2 + 0, - .5	6.75 nom	8.65 nom
0_44022EC Double stack	DIN 42/20	**1**	43 + 0, - 1.7	21 ± .2	20 + 0, - 8	14.8 + .6, - 0	29.5 + 1.4, - 0	12.2 + 0, -.5	6.75 nom	8.65 nom

To order, add material code to part number.

FIGURE 1



E, I Core Data (ungapped)

A_L (mH/1000T) min

POWER MATERIALS					HIGH PERMEABILITY MATERIALS		MAGNETIC DATA					
PART	COMB.	R	P	F*	J	W	l_e (mm)	A_e (mm^2)	A min (mm^2)	V_e (mm^3)	CORE WEIGHT (grams per set)	WαAc (cm^4)
0_42526EC	E-E	2,100	2,838	4,438	4,463	-	57.5	78.4	78.4	4,500	-	-
0_42530EC	E-E	1,730	1,880	3,000	3,600	6,160	73.5	80.2	79.4	5,900	30	0.84
0_43007EC	E-E	1,545	1,680	2,700	2,850	5,740	67	60	49	4,000	20	0.5
0_43009EC	E-E	2,170	2,360	3,780	4,420	8,500	61.9	83.2	83.2	5,150	26	0.74
0_43515EC	E-E	2,000	2,180	3,500	4,360	7,990	69.3	87	87	5,590	33	0.85
0_43520EC	E-E	1,460	1,590	2,555	3,180	6,440	94.3	90.6	90.5	8,540	42	1.68
0_44011EC	E-E	3,000	3,260	5,200	5,470	11,550	76.7	127	114	9,780	49	1.39
0_44016EC	E-E	2,000	2,180	3,495	4,235	7,905	98.4	107	106	10,500	52	2.08
0_44020EC	E-E	3,450	3,750	6,000	7,275	13,580	97	178	175	17,300	87	3.55
0_44022EC	E-E	4,150	4,510	7,600	7,960	18,200	97	233	233	22,700	114	4.59

* F material nominal ± 25%

AVAILABLE HARDWARE	STANDARD BOBBIN	PRINTED CIRCUIT BOBBIN
0_43007EC		✓
0_43009EC		✓
0_43515EC	✓	
0_44020EC	✓	

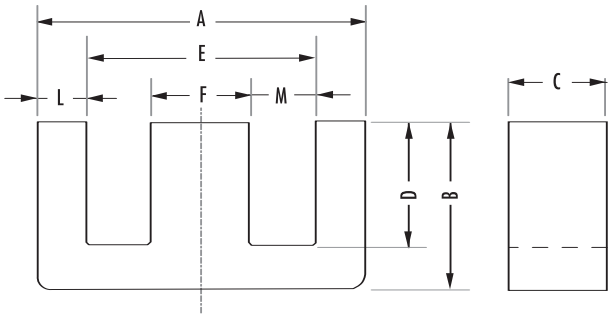
E, I Core Data (ungapped)

Any practical gap available. See pages 1.8-1.11

			MECHANICAL DIMENSIONS (mm)							
PART	**CORE TYPE**	**FIG.**	**A**	**B**	**C**	**D**	**E**	**F**	**L**	**M**
0_44033EC		**1**	42 + 1, - .7	32.8 + 0, - .4	20 + 1, - .8	26 + 1, - 0	29.5 + 1.4, - 0	12.2 + 0, - .5	5.98 ref	9.13 ref
0_44317EC	Lam EI21	**1**	40.6 ± .65	16.6 ± .2	12.4 ± .3	10.4 min	28.6 min	12.45 ± .25	6.33 max	7.95 min
0_44721EC	Lam EI625	**1**	46.9 ± .8	19.6 ± .2	15.6 ± .25	12.1	32.4 ± .65	15.6 ± .25	7.54 nom	7.87 max
0_45528EC	DIN 55/21	**1**	56.2 + 0, - 2.1	27.5 ± .3	21 + 0, - .8	18.5 + .8, - 0	37.5 + 1.5, - 0	17.2 + 0, - .5	9.35 ref	10.15 ref
0_45530EC	DIN 55/25	**1**	56.2 + 0, - 2.1	27.6 ± .38	24.61 ± .38	18.5 min	37.5 min	17.2 + 0, - .5	9.35 min	10.15 ref
0_45724EC	Lam EI75	**1**	56.1 ± 1.0	23.6 ± .25	18.8 ± .25	14.6 ± .13	38.1 min	18.8 ± .25	9.5 nom	9.03 nom
0_46016EC	Metric E60	**1**	59.99 ± .78	22.3 ± .3	15.62 ± .38	13.8 min	44 min	15.62 ± .38	7.7 ± .25	14.49 ± .25
0_46527EC		**1**	65 + 1.5, - 1.2	32.8 + 0, - .6	27.4 + 0, - .8	22 + .8, - 0	44.2 + 1.8, - 0	20 + 0, - .7	10.4 nom	12.1 min
0_47228EC	F11	**1**	72.4 ± .76	27.9 ± .33	19.0 ± .33	17.8 min	56.6 min	19 ± .38	9.53 ± .38	16.9 min
0_48020EC	Metric E80	**1**	80 ± 1.6	38.1 ± .3	19.8 ± .4	28.2 ± .3	59.1 min	19.8 ± .4	11.25 nom	19.45 min
0_49928EC	E-100	**1**	100.3 ±2.03	59.4 ± .47	27.5 ± .5	46.85 ± .38	72 min	27.5 ± .5	13.75 ± .38	22.65 ± .5

To order, add material code to part number.

FIGURE 1



E, I Core Data (ungapped)

A_L (mH/1000T) min

		POWER MATERIALS			HIGH PERMEABILITY MATERIALS		MAGNETIC DATA					
PART	COMB.	R	P	F*	J	W	l_e (mm)	A_e (mm^2)	A min (mm^2)	V_e (mm^3)	CORE WEIGHT (grams per set)	WαAc (cm^4)
0_44033EC	E-E	3,000	3,531	5,562	6,545	-	145	236	234	34,200	164	-
0_44317EC	E-E	2,925	3,180	5,900	7,350	13,720	77	149	142	11,500	57	1.48
0_44721EC	E-E	4,020	4,370	8,300	10,600	19,810	88.9	234	226	20,800	103	2.77
0_45528EC	E-E	4,720	5,130	8,220	-	-	124	353	345	44,000	212	9.91
0_45530EC	E-E	5,640	6,130	9,800	11,190	-	123	420	411	52,000	255	11.8
0_45724EC	E-E	6,070	6,600	10,400	10,610	18,000	107	337	337	36,000	179	6.34
0_46016EC	E-E	4,300	4,680	6,590	7,445	-	110	248	240	27,200	135	7.16
0_46527EC	E-E	6,450	7,982	-	-	-	147	540	530	79,000	410	-
0_47228EC	E-E	4,470	4,860	7,780	8,885	-	137	368	363	50,300	264	14.8
0_48020EC	E-E	3,505	3,810	6,000	6,940	-	184	392	392	72,300	357	30.8
0_49928EC	E-E	4,670	5,080	8,120	-	-	274	738	692	202,000	-	156

* F material nominal ± 25%

AVAILABLE HARDWARE	STANDARD BOBBIN	PRINTED CIRCUIT BOBBIN
0_44317EC	✓	✓
0_44721EC	✓	
0_45528EC		✓
0_45530EC		✓
0_45724EC	✓	
0_47228EC	✓	
0_48020EC	✓	

U, I Core Data (ungapped)

Any practical gap available. See pages 1.8-1.11

			MECHANICAL DIMENSIONS (mm)							
PART	CORE TYPE	FIG.	A	B	C	D	E	L	S	T
0_41106UC	U core	**1**	10.85 ± .2	4.19 ± .13	6.3 ± .13	2.24 ± .13	7.19 ± .2	1.83 ± .13	-	-
0_41106IC	I core	**2**	10.8 ± .2	1.83 ± .12	6.3 ± .12	-	-	-	-	-
0_42220UC	U core	**1**	22.1 ± .38	20.6 ± .38	6.27 ± .18	13.98 min	9.5 ± .38	6.27 ± .18	-	-
0_42512UC	U core	**1**	25.4 ± .5	12.9 ± .4	12.7 ± .4	6.35 min	12.8 ref	6.3 ± .13	-	-
0_42515UC	U core	**1**	25.4 ± .51	15.9 ref	6.35 ± .12	9.27 min	12.7 ref	6.35 + 0, - .12	-	-
0_42516IC	I core	**2**	25.4 +.64, -.51	6.35 ± .13	6.35 ± .13	-	-	-	-	-
0_42530UC	U core	**1**	25.4 ± .51	15.9 ref	12.7 ± .25	9.27 min	12.7 ref	6.35 ± .12	-	-
0_44119UC	U core	**3**	41.78 ± .81	20.9 ± .12	11.9 ± .25	13.4 min	18.8 ± .56	-	3.18 nom	35.3 ref
0_44121UC	U core	**3**	41.78 ± .81	20.6 ± .13	11.94 ± .25	11.1 ± .2	18.8 ± .56	-	3.18 ± .13	34.66 nom

To order, add material code to part number.

FIGURE 1

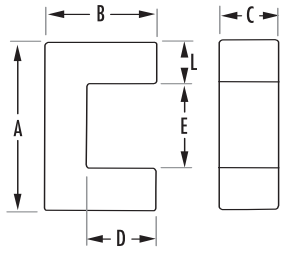


FIGURE 2

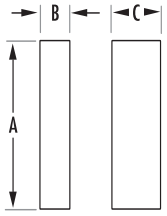
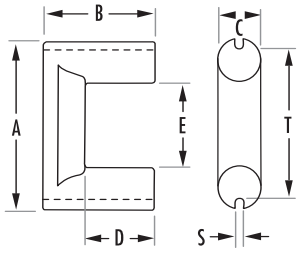


FIGURE 3



U, I Core Data (ungapped)

A_L (mH/1000T) min

		POWER MATERIALS			HIGH PERMEABILITY MATERIALS		MAGNETIC DATA					
PART	COMB.	R	P	F*	J	W	l_e (mm)	A_e (mm^2)	A min (mm^2)	V_e (mm^3)	CORE WEIGHT (grams per set)	WαAc (cm^4)
0_41106UC	U-U	770	840	1,010	1,330	-	29.2	12	11.5	350	1.8	0.02
0_41106IC	U-I	710	770	1,150	1,580	-	24.6	11.5	11.5	283	1.5	0.01
0_42220UC	U-U	670	730	1,360	1,580	2,400	95.8	39.7	39.7	4,130	19	0.91
0_42512UC	U-U	1,430	1,550	2,480	3,300	-	68.9	80	80	4,170	29	0.67
0_42515UC	U-U	830	1,000	1,600	1,880	2,730	83.4	40.4	40.4	3,370	17	0.63
0_42516IC	U-I	1,110	2,180	1,770	-	-	64.3	40.3	40.3	2,590	13	0.32
0_42530UC	U-U	1,570	1,710	2,740	3,650	-	83.4	80.8	80.8	6,740	34	1.27
0_44119UC	U-U	1,220	1,330	2,130	2,830	4,000	121.2	91.1	80.5	11,000	54	2.86
0_44121UC	U-U	1,410	1,535	2,465	3,290	4,600	115.2	114.3	105.4	13,172	55	3.09

* F material nominal ± 25%

U, I Core Data (ungapped)

Any practical gap available. See pages 1.8-1.11

			MECHANICAL DIMENSIONS (mm)							
PART	**CORE TYPE**	**FIG.**	**A**	**B**	**C**	**D**	**E**	**L**	**S**	**T**
0_44125UC	U core	**3**	41.78 ± .81	25.4 ± .13	11.94 ± .25	15.9 ± .2	18.8 ± .56	-	3.18 ± .13	34.66 nom
0_44130UC	U core	**3**	41.78 ± .11	30.5 ± .3	11.94 ± .25	20.8 min	18.8 ± .56	-	3.18 ± .13	34.66 nom
0_45716UC	U core	**3**	57.65 ± 1.7	28.6 + 0, - .4	15.9 ± 4	15.5 + 1, - 0	27.8 ± .9	-	4.8 ± .2	49.8 ± .8
0_45917UC	U core	**3**	59.34 ± 1.75	35.8 ± .4	17 ± .4	21.5 ± .8	26.5 ± .1	-	4.5 ± .2	50.5 ± 1
0_46420UC	U core	**4**	64 ± 1.95	40.5 ± .2	24 ± .3	26.5 ± .4	24.1 ± .9	20 ± .4	4 min	44 ± .6
0_49316UC	U core	**1**	93 ± 1.8	76 ± .5	16 ± .6	48 ± .9	36.2 ± 1.2	28.4 ref	-	-
0_49920UC	U core	**1**	126 ± 4	91 ± 1	20 ± .6	63 ± 2	70 ± 2	-	-	-
0_49925IC	I100/25/25	**2**	101.6 ± 1.5	25.4 ± .4	25.4 ± .6	-	-	-	-	-
0_49925UC	U/100/57/25	**4**	101.6 ± 1.5	57.1 ± .4	25.4 ± .6	30.95	50.7	25.4 ± .8	-	-

To order, add material code to part number.

FIGURE 1

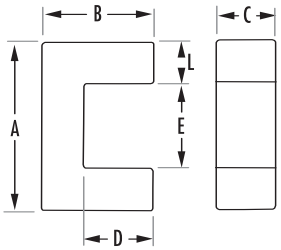


FIGURE 2

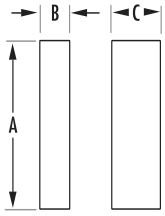
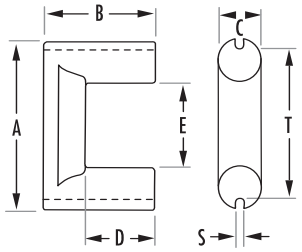


FIGURE 3



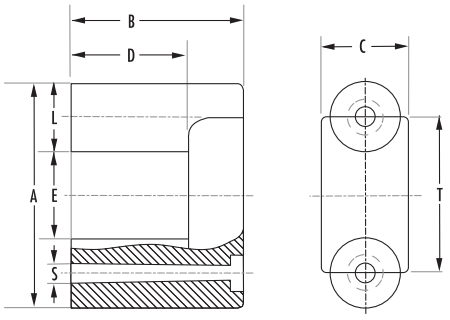
U, I Core Data (ungapped)

A_L (mH/1000T) min

		POWER MATERIALS			HIGH PERMEABILITY MATERIALS		MAGNETIC DATA					
PART	COMB.	R	P	F*	J	W	l_e (mm)	A_e (mm^2)	A min (mm^2)	V_e (mm^3)	CORE WEIGHT (grams per set)	WαAc (cm^4)
0_44125UC	U-U	1,200	1,310	2,105	2,800	-	134.4	113.1	105.4	15,196	64	4.44
0_44130UC	U-U	1,050	1,140	1,830	2,440	3,420	154.8	112.1	105.4	17,346	75	5.88
0_45716UC	U-U	1,950	2,296	3,622	-	-	163	171	171	27,900	140	-
0_45917UC	U-U	2,270	2,456	3,881	-	-	189	210	210	39,700	198	-
0_46420UC	U-U	2,840	3,074	4,995	-	-	210	290	290	61,000	320	-
0_49316UC	U-U	2,550	3,894	6,173	7,443	-	258	447	447	115,000	800	-
0_49920UC	U-U	2,250	2,679	4,265	5,226	-	480	560	560	268,800	1,360	-
0_49925IC	U-I	4,280	4,650	7,440	-	-	245	645	645	158,000	324	102
0_49925UC	U-U	3,400	3,650	5,900	-	-	308	645	645	199,000	975	168

* F material nominal ± 25%

FIGURE 4



Bobbins

			MECHANICAL DIMENSIONS (mm)						NOMINAL WINDING AREA PER SECTION	AVERAGE LENGTH OF TURN (mm)	MATERIAL
PART	CORE SIZE	FIG.	A MAX	B MAX	C MAX	D MAX	E MIN	F NOM	cm^2		
00B180801	**41808EC**	**1**	13.84	-	11.04	6.47	4.95	9.52	0.3420	39.4	Nylon*
00B251001	**42510EC**	**1**	18.49	-	12.34	8.4	6.62	10.31	0.510	56	Nylon*
00B251501	**42515EC**	**2**	15.08	15.08	22.09	6.35	20.57	6.35	0.716	45.4	Glass filled Nylon
00B351501	**43515EC**	**1**	24.84	-	18.92	11.98	9.9	17.14	1.130	72	Nylon*
00B402001	**44020EC**	**3**	29.84	35.05	16.12	12.31	26.16	29.21	2.07	97.5	Glass filled Nylon*
00B431701	**44317EC**	**1**	28.01	-	20.47	14.6	12.82	18.94	1.260	84.4	Nylon*
00B472101	**44721EC**	**1**	31.19	-	23.57	18.41	16.12	21.38	1.410	97.5	Nylon*
00B572401	**45724EC**	**1**	37.84	-	28.57	21.59	19.12	26.54	2.14	118.2	Nylon*
00B722801	**47228EC**	**4**	51.07	51.07	19.76	19.76	34.46	30.4	4.08	149.3	Zytel 50
00B802001	**48020EC**	**4**	57.58	57.58	20.54	20.54	55.11	51.05	8.06	165	Zytel 50

* UL 94 HB rated

Bobbins

FIGURE 1

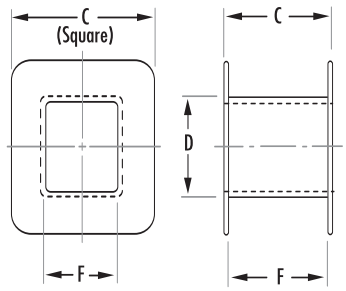


FIGURE 2

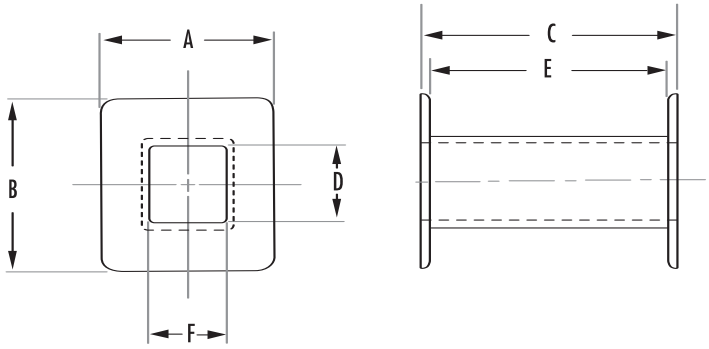


FIGURE 3

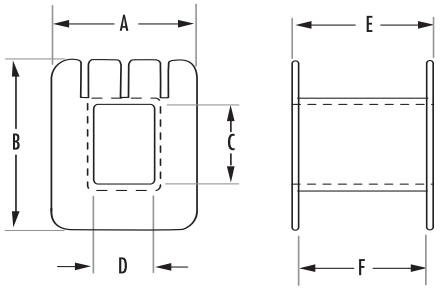
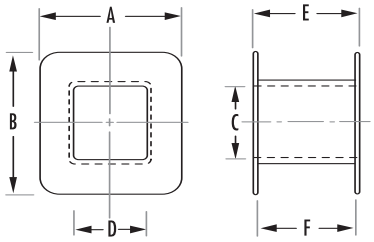


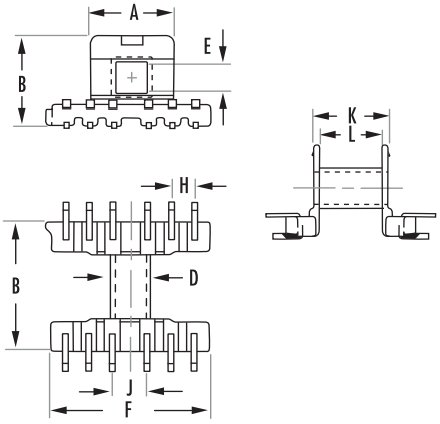
FIGURE 4



Surface Mount Bobbins

MECHANICAL DIMENSIONS (mm)											
PART	CORE SIZE	FIG.	A MAX	B MAX	C MAX	D MAX	E MIN	F MAX	G MIN	H NOM	J NOM
SMB1203LA	**41203EC**	**1**	9.11	10.49	14.07	4.49	3.3	17.22	-	2.54	3.81

FIGURE 1



Surface Mount Bobbins

MECHANICAL DIMENSIONS (mm)					NOMINAL WINDING AREA PER SECTION	AVERAGE LENGTH OF TURN (mm)	BOBBIN MATERIAL	PIN MATERIAL	PIN DIAMETER (mm)
PART	CORE SIZE	FIG.	K MAX	L NOM	cm^2				
SMB1203LA	**41203EC**	**1**	7.92	6.9	.162	26.5	LCP**	Phosphor Bronze	0.51 square

** UL 94 V-O rated

Printed Circuit Bobbins

MECHANICAL DIMENSIONS (mm)												
PART	CORE SIZE	FIG.	A MAX	B MAX	C MAX	D MAX	E MIN	F MAX	G MIN	H NOM	J NOM	K MAX
PCB2510T1	**42510EC**	**1**	18.66	20.37	20.95	8.89	6.62	26.28	4.19	3.81	5.08	12.31
PCB2520TA	**42520EC**	**2**	26.28	21.2	13.33	6.68	18.54	27.94	12.36	10.66	15.74	3.42
PCB3007T1	**43007EC**	**3**	24.0	32.08	7.44	7.44	18.79	18.79	19.05	17.27	25.4	3.04
PCB3009LA	**43009EC**	**4**	21.38	26.03	30.73	12.19	9.65	33.9	5.08	5.08	-	17.14
PCB4317L2 2 Section	**44317EC**	**3**	28.06	28.82	29.21	15.26	12.82	41.4	4.31	5.08	6.35	20.32
PCB4721L2 2 Section	**44721EC**	**3**	31.36	32.13	32.89	18.41	16.12	44.57	4.44	5.08	7.62	23.49
PCB5528WA	**45528EC**	**5**	54.99	51.18	21.13	17.12	37.03	50.29	36.06	35.56	45.72	4.06
PCB5530FA	**45530EC**	**6**	37.16	40.15	27.73 min	17.55 min	37.0	49.4	35.61	33.4	40.0	4.49

FIGURE 1

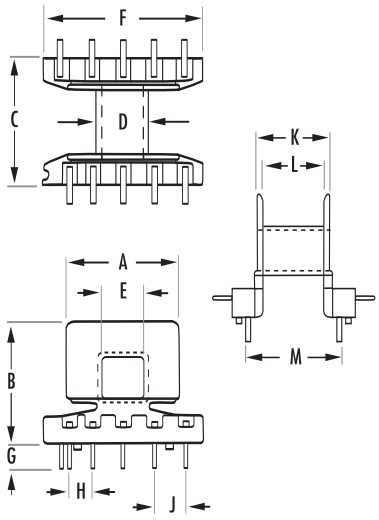


FIGURE 2

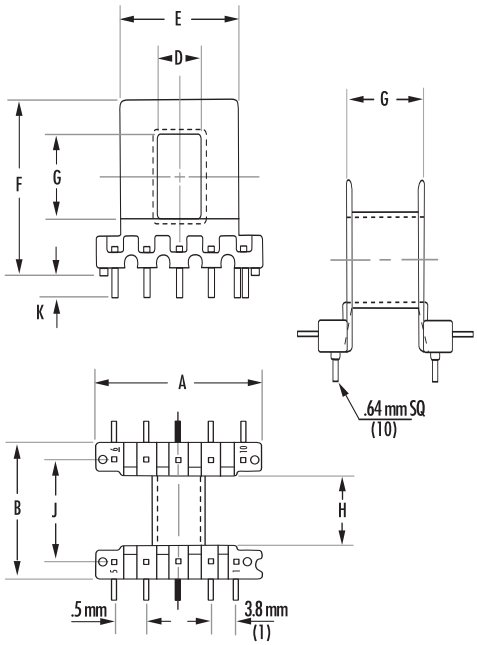
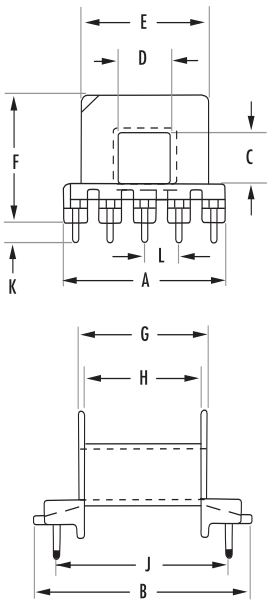


FIGURE 3



Printed Circuit Bobbins

MECHANICAL DIMENSIONS (mm)					NOMINAL WINDING AREA PER SECTION	AVERAGE LENGTH OF TURN (mm)	BOBBIN MATERIAL	PIN MATERIAL	PIN DIAMETER (mm)
PART	CORE SIZE	FIG.	L NOM	M NOM	cm^2				
PCB2510T1	**42510EC**	**1**	10.26	15.62	0.406	25.6	Glass filled Nylon*	Phosphor Bronze	0.64 square
PCB2520TA	**42520EC**	**2**	-	-	0.630	68.6	PET Polyester	-	0.64 square
PCB3007T1	**43007EC**	**3**	5.08	-	0.833	54.8	Thermoset Phenolic	-	0.76
PCB3009LA	**43009EC**	**4**	14.73	22.86	0.714	66.4	DAP**	Alloy 510 tin plated	0.91 square
PCB4317L2 2 Section	**44317EC**	**3**	18.11	24.13	1.010	84.3	Rynite	Phosphor Bronze	0.64 square
PCB4721L2 2 Section	**44721EC**	**3**	21.08	27.94	1.193	99	Glass filled Nylon*	Phosphor Bronze	0.64 square
PCB5528WA	**45528EC**	**5**	52.07	-	3.020	107.3	Glass filled Nylon**	-	0.91 square
PCB5530FA	**45530EC**	**6**	37.0	-	2.890	133.9	Glass filled Nylon**	-	0.89 square

* UL 94 HB rated ** UL 94 V-0 rated

FIGURE 4

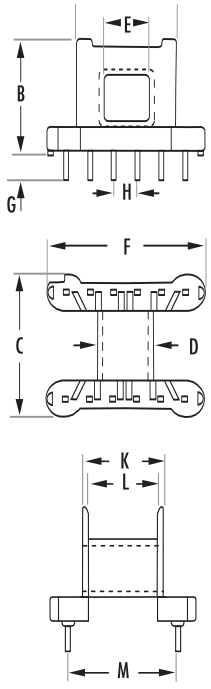


FIGURE 5

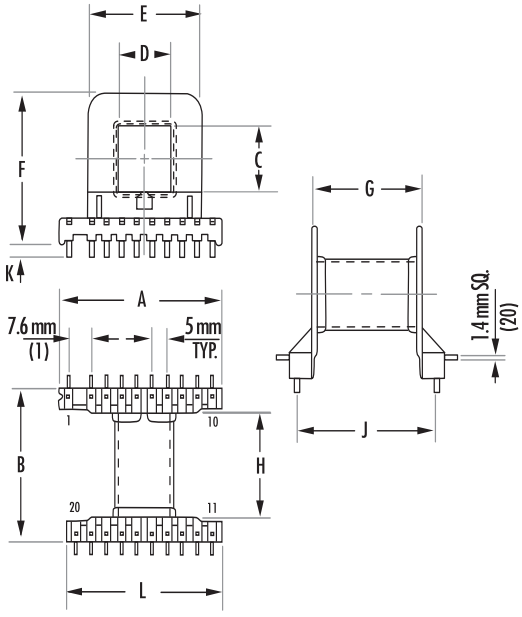
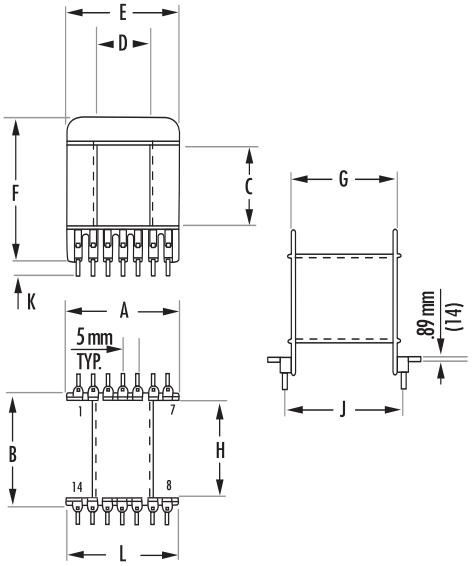


FIGURE 6



EFD Core Data (ungapped)

Any practical gap available. See pages 1.8-1.11

			MECHANICAL DIMENSIONS (mm)								
PART	CORE TYPE	FIG.	A	B	C	D MIN	E MIN	F	K	L	M
0_41009EC	EFD 10	**1**	10.5 ± .3	5.2 ± .1	2.7 ± .1	3.75 ± .15	7.65 ± .25	4.55 ± .15	4.45 ± .05	1.43 ref	1.55 ref
0_41212EC	EFD 12	**1**	12.5 ± .3	6.2 ± .1	3.5 ± .1	4.55 ± .15	9 ± .25	5.4 ± .15	2 ± .1	1.75 ref	1.8 ref
0_41515EC	EFD 20	**1**	15 ± .4	7.5 ± .15	4.65 ± .15	5 ± .25	11 ± .35	5.3 ± .15	2.4 ± .1	2 nom	2.85 nom
0_42019EC	EFD 15	**2**	20 ± .55	10 ± .15	6.65 ± .15	7.7 ± .25	15.4 ± .5	8.9 ± .2	3.6 ± .15	2.3 ref	3.25 ref
0_42523EC	EFD 25	**2**	25 ± .66	12.5 ± .15	9.1 ± .2	9.1 min	18.1 min	11.4 ± .2	5.2 ± .15	3.15 ± .2	3.65 ± .2
0_43030EC	EFD 30	**2**	30 ± .8	15 ± .15	9.1 ± .2	11.2 ± .3	22.4 ± .75	14.6 ± .25	4.9 ± .15	3.8 ref	3.9 ref

To order, add material code to part number.

FIGURE 1

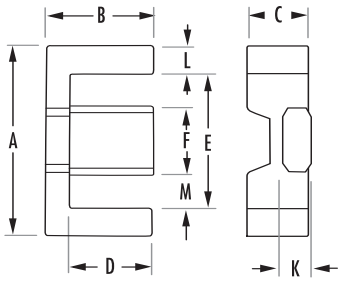
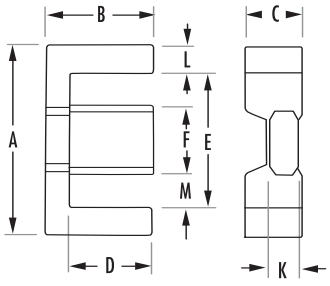


FIGURE 2



EFD Core Data (ungapped)

A_L (mH/1000T) min

	POWER MATERIALS			HIGH PERMEABILITY MATERIALS		MAGNETIC DATA						
PART	R	P	F*	J	W	l_e (mm)	A_e (mm^2)	A min (mm^2)	V_e (mm^3)	CORE WEIGHT (grams per set)	BOBBIN WINDOW AREA (cm^2)	WaAc (cm^4)
0_41009EC	438	466	698	692	-	23.7	7.2	6.5	171	.90	-	-
0_41212EC	570	600	844	1,950	-	28.5	11.4	10.7	325	1.8	-	-
0_41515EC	670	730	1,170	1,450	2,150	34	15	12.2	510	2.8	0.167	0.02
0_42019EC	975	1,225	1,881	2,022	-	47	31	29	1,460	7	-	-
0_42523EC	1,570	1,710	2,730	3,380	5,820	57	58	55	3,300	16.2	0.402	0.23
0_43030EC	1,650	2,021	3,137	3,501	-	68	69	66	4,700	24	-	-

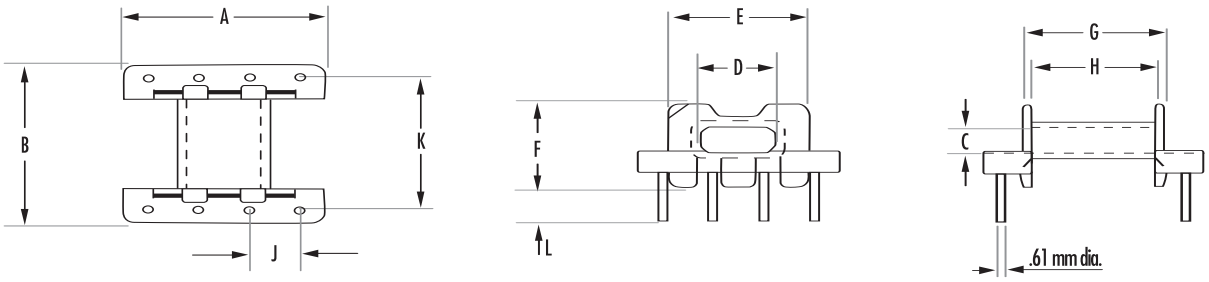
* F material nominal ± 25%

AVAILABLE HARDWARE	SURFACE MOUNT BOBBIN	PRINTED CIRCUIT BOBBIN	MOUNTING CLAMP
0_41515EC	✓	✓	✓
0_42523EC		✓	✓

Printed Circuit Bobbins

MECHANICAL DIMENSIONS (mm)											
PART	CORE SIZE	FIG.	A NOM	B NOM	C MIN	D MIN	E MAX	F NOM	G MAX	H NOM	J TYP
PCB15158A	**41515EC**	**1**	14.98	16.3	2.48	5.43	10.59	8.5	10.59	9.19	3.75
PCB2523TA	**42523EC**	**2**	24.99	25.85	5.38	11.6	18.11	13.2	18.0	16.68	5

FIGURE 1

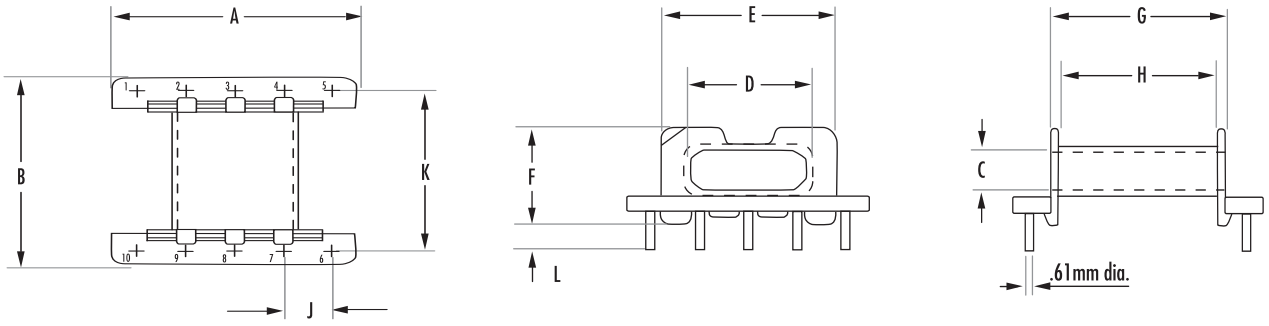


Printed Circuit Bobbins

MECHANICAL DIMENSIONS (mm)					NOMINAL WINDING AREA PER SECTION	AVERAGE LENGTH OF TURN (mm)	BOBBIN MATERIAL	PIN MATERIAL	PIN DIAMETER (mm)
PART	CORE SIZE	FIG.	K NOM	L ± .30	cm^2				
PCB15158A	**41515EC**	**1**	13.74	3.51	0.169	36	Phenolic*	CP Wire	0.61
PCB2523TA	**42523EC**	**2**	22.5	3.51	0.412	59.7	Phenolic*	CP Wire	0.61

* UL 94 V-O rated

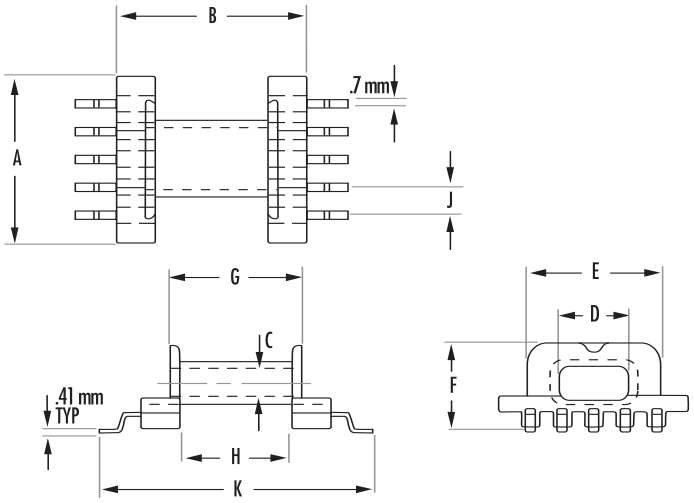
FIGURE 2



Surface Mount Bobbins

MECHANICAL DIMENSIONS (mm)											
PART	CORE SIZE	FIG.	A NOM	B NOM	C MIN	D MIN	E MAX	F NOM	G MAX	H NOM	J TYP
SMB1515TA	**41515EC**	**1**	14.73	14.73	2.48	5.38	10.85	7.49	10.49	8.89	2.48

FIGURE 1



Surface Mount Bobbins

MECHANICAL DIMENSIONS (mm)				NOMINAL WINDING AREA PER SECTION	AVERAGE LENGTH OF TURN (mm)	BOBBIN MATERIAL	PIN MATERIAL	PIN DIAMETER (mm)
PART	CORE SIZE	FIG.	K NOM	cm^2				
SMB1515TA	**41515EC**	**1**	21.59	0.175	36.5	L.C.P.*	Nickel Bronze	0.41

* UL 94 V-0 rated

Clamps

MECHANICAL DIMENSIONS (mm)							
PART	CORE SIZE	FIG.	A	B	C	D	MATERIAL
00C15151A*	**41515EC**	**1**	4.49	5.2	18.79	0.25	Stainless Steel
00C25231A*	**42523EC**	**2**	8.0	5.38	29.0	0.3	Stainless Steel

*Two clamps required per core set

FIGURE 1

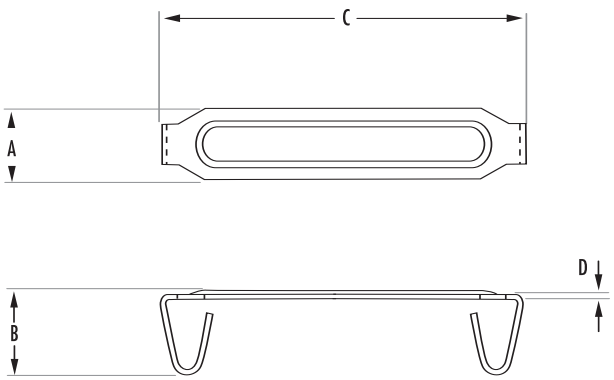


FIGURE 2