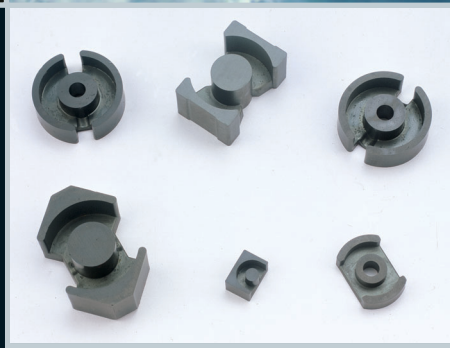


Soft Ferrites



COSMO FERRITES LIMITED

www.cosmoferrites.com

COSMO FERRITES LIMITED, founded in 1986 by promoters with over five decades of standing in the Indian Industry, is today the leading manufacturer of Soft Ferrites in India. The Company has its unit operating in the foothills of the Himalayas at a distance of 300 Kms. from Delhi.

State of the art equipment from leading manufacturers in Western Europe, rigorous quality standards and well equipped in-house R&D set up ensures delivery of high quality ferrites to our customers and continuous product upgradation. The Company places overriding value on developing close and long lasting relationships with its customers.

COSMO FERRITES has a leading position in the Indian soft ferrites market. It pioneered the exports of Soft Ferrites from India in 1988 and has been the leading exporter of soft ferrites since then. More than 60% of production is exported to U.S.A., Western Europe and the Far East.

The Company's quality system is approved by International Electro-Technical Commission (IEC) of Geneva and its products carry IECQ certification since 1990. It is the first ferrite manufacturer in India to obtain ISO 9002 accreditation for its operations in 1993.

MATERIAL TABLE

PROPERTY	SYMBOL	UNIT	TEMP (°C)	MATERIAL							
				CF129	CF196	CF138	CF140	CF124	CF101	CF195	CF197
Initial Permeability	$\mu_{i ac}$	—	25	1900±20%	2000±20%	2100±20%	2500±20%	2500±20%	3000±20%	5000±20%	7000±20%
Saturation Flux Density	B_s (H=1kA/m)	mT	25	510	500	480	390	490	490	400	400
			100	410	400	380	—	390	390	260	260
Residual Flux Density	B_r	mT	25	180	210	180	—	200	200	150	150
Coercivity	H_c	A/m	25	15	16	15	—	16	15	12	12
Power Loss Density	P_c (16KHz) 200mT	Kw/m ³	25	≤ 95	≤ 120	—	—	≤ 100	≤ 100	—	—
			100	≤ 60	≤ 110	—	—	≤ 90	≤ 120	—	—
	P_c (25KHz) 200mT	Kw/m ³	25	≤ 140	≤ 160	—	—	≤ 150	≤ 150	—	—
			100	≤ 95	≤ 140	—	—	≤ 130	≤ 170	—	—
	P_c (100KHz) 100mT	Kw/m ³	25	—	—	≤ 120	—	—	—	—	—
			100	—	—	≤ 60	—	—	—	—	—
	P_c (100KHz) 200mT	Kw/m ³	25	—	—	≤ 700	—	—	—	—	—
			100	—	—	≤ 450	—	—	—	—	—
Relative Loss Factor	$\tan \delta/\mu_{i ac}$ (10 KHz)	x 10 ⁻⁶	25	≤ 2.5	≤ 4	≤ 2.5	≤ 2.5	≤ 2.5	≤ 2.5	≤ 5.0	≤ 7
Hysteresis Mat. Constant	η_B	x 10 ⁻⁶	25	—	—	—	≤ 0.4	—	—	—	—
Relative Temp. Coefficient	α_F	x 10 ⁻⁶	25-55	—	—	—	0.4-1.5	—	—	—	—
Disaccomodation Factor	D_F	x 10 ⁻⁶	25	—	—	—	≤ 3.0	—	—	—	—
Sec. Max. Permeability	SPM	°C	—	90 – 110	70 – 90	90 – 110	—	60 – 80	50 – 70	—	—
Curie Temperature	T_c	°C	—	≥ 240	≥ 200	≥ 220	≥ 150	≥ 200	≥ 190	≥ 120	≥ 120
Resistivity	ρ	Ωm	25	1.0	0.4	1.0	1.0	0.5	0.4	0.2	0.2
Density	d	Kg/m ³	25	4.8 x 10 ³	4.8 x 10 ³	4.8 x 10 ³	4.8 x 10 ³	4.8 x 10 ³	4.8 x 10 ³	4.85 x 10 ³	4.85 x 10 ³
Geometry	—	—	—	EE, EI EER ETD, UU	EE, EI EER, EC UU TOROIDS	EE, EI ETD, EFF RM, PQ PTS, UU	RM, POT PTS	EE, UU	EE, EI EER	EE,UU,EP RM TOROIDS	TOROIDS

Note :

1. The values are obtained with Toroids T 2512.
2. Initial Permeability, Relative Loss Factor and Curie Temperature are measured at f = 10KHz & B = 0.1 mT.
3. Disaccomodation factor - Done 10 minutes and 100 minutes after demagnetization.

TOROIDS

Type	FIG.	DIMENSIONS (mm)			EFFECTIVE PARAMETERS			WEIGHT (gms/piece)	AL(nH) ^{+30%} _{-20%}				
		A	B	C	Le(mm)	Ae(mm ²)	Ve(mm ³)		CF129	CF196	CF138	CF101	CF195
T 10215	1	102.0 ±2.0	65.8 ±1.3	15.0 ±0.5	255.3	262.7	67067	330	2450	2550	2700	3850	6400
T 8530	1	85.0 ±1.5	62.0 ±1.5	30.0 ±1.0	227	342	77710	360	3600	3800	4000	5700	9300
T 8520	1	85.0 ±1.5	62.0 ±1.5	20.0 ±1.0	230	228	52620	240	2350	2450	2600	3700	6210
T 6325	1	63.0 ±1.3	38.0 ±0.8	25.0 ±0.5	152	306	46528	236	4800	5050	5300	7400	12600
T 6313	1	63.0 ±1.3	38.0 ±0.8	12.7 ±0.3	152.8	155.4	23636	122	2450	2550	2650	3850	6400
T 5818	2	58.3 ±1.0	40.8 ±0.8	17.6 ±0.5	152.4	146.3	22296	110	2300	2400	2500	3600	6000
T 5030	2	50.0 ±1.0	34.0 ±0.8	30.0 ±0.6	128.7	237	30516	148	4400	4600	4850	6950	11500
T 4919	2	49.0 ±1.0	31.8 ±0.7	19.0 ±0.5	123	161	19796	100	3100	3300	3450	4950	8200
T 4511	2	45.0 ±1.35	28.0 ±0.8	11.0 ±0.4	110.5	91.8	10138	53	2000	2100	2200	3100	5200
T 3816	2	38.1 ±0.7	25.4 ±0.5	15.8 ±0.4	97	97	9419	47.5	2400	2500	2600	3750	6250
T 3813	2	38.1 ±0.5	25.4 ±0.5	12.7 ±0.2	97	77.5	7525	39	1900	2000	2100	3000	5000
T 3615	2	36.0 ±0.7	23.0 ±0.5	15.0 ±0.4	89.6	96	8597	43	2550	2650	2800	4050	6650
T 3115	2	31.5 ±1.0	19.0 ±0.6	15.0 ±0.4	76.0	93.8	7129	35	2950	3100	3250	4650	7700
T 3113	2	31.0 ^{+0.8} _{-0.5}	19.0 ±0.6	13.0 ±0.5	75.7	77.4	5855	32.5	2450	2550	2700	3850	6850
T 3112	2	31.5 ±1.0	19.0 ±0.6	12.5 ±0.4	76.0	76.5	5814	29	2400	2500	2650	3800	6300
T 2915	2	29.6 ±0.7	18.4 ±0.6	14.9 ±0.4	72.6	81.9	5947	29	2700	2850	2950	4250	7100
T 2615	2	26.0 ±0.55	14.5 ±0.35	15.0 ±0.3	60.1	83.8	5042	25	3300	3500	3650	5250	8750
T 2610	2	26.0 ±0.55	14.5 ±0.35	10.0 ±0.3	63.6	57.5	3657	16	2150	2250	2350	3400	5700
T 2515	2	25.0 ±0.5	15.05 ±0.5	15.0 ±0.5	61.5	74.6	4587	24	2900	3050	3200	4550	7600
T 2513	2	25.0 ±0.5	15.05 ±0.5	13.0 ±0.5	62.3	65.4	4074	19	2500	2600	2750	3950	6600
T 2512	2	25.0 ±0.5	15.05 ±0.5	12.0 ±0.5	62.3	58.2	3626	18.5	2250	2400	2450	3650	6000
T 2510	2	25.0 ±0.5	15.05 ±0.5	10.0 ±0.5	61.5	49.7	3056	15	1950	2050	2100	3050	5000
T 2212	2	22.1 ±0.25	13.7 ±0.25	12.7 ±0.25	54.15	53.34	2888	14	2350	2450	2600	3700	6200
T 2208	2	22.1 ±0.25	13.7 ±0.25	8.0 ±0.25	54.15	34.8	1884	9	1500	1600	1700	2400	4000
T 2206	2	22.1 ±0.25	13.7 ±0.25	6.35 ±0.25	54.15	26.17	1417	7	1150	1200	1300	1800	3000
T 2106	2	21.0 _{-0.5}	13.0 ±0.5	6.0 _{-0.5}	51.4	23.5	1207	6	1100	1150	1200	1700	2800
T 2010	2	20.0 ±0.4	10.0 ±0.25	10.0 ±0.4	43.6	48	2092	11.5	2650	2750	2900	4150	6900
T 1807	2	17.5 ±0.5	11.05 ±0.3	7.0 ±0.2	44.2	20.6	910	5	1100	1200	1250	1750	2900
T 1606	2	16.0 ±0.4	9.6 ±0.3	6.3 ±0.2	38.7	20	770	4	1250	1300	1350	1950	3200
T 1605	2	16.0 ±0.4	9.6 ±0.3	5.0 ±0.2	38.5	15.7	603	3.3	975	1025	1075	1550	2600
T 1405	2	14.0 ±0.3	9.0 ±0.2	4.9 ±0.2	35	12.1	422	2	840	880	900	1325	2150
T 1306A	2	12.9 ±0.25	7.9 ±0.2	6.2 ±0.2	31.4	15.2	477	2.2	1150	1200	1250	1825	3050
T 1305	2	13.0 ±0.4	7.0 ±0.3	5.0 ±0.3	30.9	14.6	451	2.1	1150	1200	1250	1800	3000
T 1303	2	13.0 ±0.4	7.0 ±0.3	3.2 ±0.2	29.5	9.3	274	1.2	750	800	825	1200	1950
T 1004	2	10.0 ±0.3	6.0 ±0.2	4.0 ±0.3	25.1	8	200	1	750	800	850	1200	2000
T 0903	1	9.53 ±0.3	4.75 ±0.2	3.18 ±0.2	20.7	7.3	151	0.85	840	880	925	1300	2200

* Coated Toroids available.

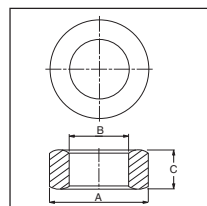


Fig. 1

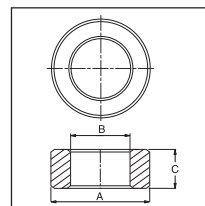


Fig. 2

EE CORES

Type	FIG.	DIMENSIONS (mm)						EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) ^{+30%} _{-20%}				
		A	B	C	D	E	F	Le(mm)	Ae(mm²)	Amin(mm²)	Ve(mm³)		CF129	CF196	CF138	CF101	CF195
EE 8020	3	80.0 ±0.9	60.3 ±0.9	38.1 ±0.33	28.53 ±0.33	19.8 ±0.3	19.8 ±0.3	185.1	387.3	379	71698	354	4300	4500	4700	—	—
EE 7219	3	72.4 ±1.45	53.35 ±1.1	27.95 ±0.15	18.05 ±0.25	19.05 ±0.38	19.05 ±0.38	137	367.9	362.9	50391	260	5900	6200	6500	8900	—
EE 6527	3	66.5 _{-2.7}	44.2 ^{+1.8}	32.5 ±0.3	22.2 ^{+0.7}	20.0 _{-0.7}	27.4 _{-0.8}	147	532	531	78200	400	7500	7800	8100	—	—
EE 6513	3	66.5 _{-2.7}	44.2 ^{+1.8}	32.5 ±0.3	22.2 ^{+0.7}	20.0 _{-0.7}	13.7 _{-0.6}	147	266	263	39100	186	3750	3900	4050	5400	—
EE 5525	3	55.0 ^{+1.2} _{-0.9}	37.5 ^{+1.2}	27.8 _{-0.6}	18.5 ^{+0.8}	17.2 _{-0.5}	25.0 _{-0.6}	120	422	419	50640	252	7250	7600	7950	—	—
EE 5521	3	55.0 ^{+1.2} _{-0.9}	37.5 ^{+1.2}	27.8 _{-0.6}	18.5 ^{+0.8}	17.2 _{-0.5}	21.0 _{-0.6}	120	354	351	42500	219	6000	6200	6400	8700	—
EE 4716	3	47.15 ±0.5	31.6 min.	19.7 ±0.13	12.1 min.	15.65 ±0.2	15.65 ±0.2	89.4	236.8	233	21169	103	5550	5700	5850	7800	—
EE 4220	3	42.0 ^{+1.0} _{-0.7}	29.5 ^{+1.2}	21.2 _{-0.4}	14.8 ^{+0.7}	12.2 _{-0.5}	20.0 _{-0.8}	97	240	229	23300	114	5000	5400	5800	7500	—
EE 4215	3	42.0 ^{+1.0} _{-0.7}	29.5 ^{+1.2}	21.2 _{-0.4}	14.8 ^{+0.7}	12.2 _{-0.5}	15.2 _{-0.5}	97	181	175	17600	85	3900	4000	4100	5500	—
EE 4112	3	40.7 ±0.7	28.55 min.	16.4 ±0.2	10.55 ±0.2	12.4 ±0.3	12.4 ±0.3	77.5	146.6	142	11369	57	3900	4100	4300	5600	—
EE 4012	3	41.0 ^{+0.7} _{-0.5}	28.5 ^{+0.7}	17.4 ^{+0.5}	10.25 ^{+0.25}	12.0 _{-0.7}	12.0 _{-0.7}	79	153	136	12100	60	3900	4000	4100	—	—
EE 3611	3	36.4 ±0.7	25.2 ±0.7	17.8 ±0.2	12.15 ±0.15	9.45 ±0.25	11.25 ±0.25	80.8	118	106.31	9536	44	3000	3100	3200	—	—
EE 3512	3	35.0 ^{+0.8} _{-0.5}	25.0 ^{+0.8}	14.65 ±0.55	9.0 ^{+0.3}	10.3 _{-0.6}	12.0 _{-0.6}	67.3	120	117	8090	41	3400	3500	3600	5300	—
EE 3512A	3	34.3 ±0.7	26.0 ±0.5	14.1 ±0.2	9.8 ±0.2	9.3 ±0.2	12.7 ±0.25	69	113	105	7797	41	3400	3550	3700	4900	—
EE 3213	3	31.9 ±1.0	22.77 ±0.77	14.0 ±0.4	9.65 ±0.25	8.9 ±0.25	12.7 ±0.3	66.4	113.2	110.5	7516	39	3300	3450	3600	—	—
EE 3109	3	30.9 ±0.5	22.2 ±0.4	13.1 ±0.15	8.6 ±0.3	9.4 ±0.25	9.4 ±0.3	61.3	84.8	84.8	5198	26	2850	3000	3150	4100	—
EE 3011	3	30.0 ±0.6	20.2 ±0.5	13.15 ±0.2	8.13 ±0.2	10.7 ±0.3	10.7 ±0.3	57.9	108.7	108.7	6295	30	3900	4000	4100	5500	—
EE 3007	3	30.0 ^{+0.8} _{-0.6}	19.5 ^{+0.8}	15.2 _{-0.4}	9.7 ^{+0.6}	7.2 _{-0.5}	7.3 _{-0.5}	67	60	49	4000	22	1800	1850	1900	—	—
EE 2811	3	28.2 ±0.4	19.2 ±0.4	10.6 ±0.3	6.6 ±0.2	7.1 ±0.4	10.7 ±0.3	50.7	84.6	76	4290	23.5	3450	3600	3750	4950	6800
EE 2532	3	25.3 ^{+0.5} _{-0.3}	19.3 ^{+0.4} _{-0.2}	15.9 ±0.2	12.7 ±0.3	6.5 ^{+0.3} _{-0.25}	7.0 _{-0.5}	73.5	42	42	3087	16	1180	1230	1280	1700	2350
EE 2511	3	25.0 ^{+0.8} _{-0.7}	17.5 ^{+0.8}	12.8 _{-0.5}	8.7 ^{+0.5}	7.5 _{-0.5}	11.0 ±0.3	57.5	84.7	78.7	4870	23	2800	2900	3000	—	—
EE 2507	3	25.0 ^{+0.8} _{-0.7}	17.5 ^{+0.8}	12.8 _{-0.5}	8.7 ^{+0.5}	7.5 _{-0.5}	7.5 _{-0.6}	57.5	52.5	51.5	3020	15	1700	1800	1900	—	3200
EE 2506M	3	25.45 ±0.65	19.2 ±0.4	9.78 _{-0.15}	6.78 _{-0.3}	6.3 ±0.2	6.25 ±0.25	49.2	38.8	38.4	1910	10	1400	1500	1600	—	—
EE 2506	3	25.4 ±0.7	19.6 ±0.6	9.5 ±0.2	6.5 ±0.2	6.3 ±0.25	6.3 ±0.25	48	40	39.7	1950	10	1500	1600	1700	2200	3050
EE 2105	3	20.6 ±0.5	16.4 ±0.4	8.5 ±0.2	6.2 ±0.2	4.8 ±0.2	4.8 ±0.2	43.4	21.6	20.2	937	5	850	900	950	1100	—
EE 2011S	3	20.4 _{-0.8}	14.1 ^{+0.8}	10.1 _{-0.4}	7.0 ^{+0.4}	5.9 _{-0.4}	11.0 ±0.25	44.9	65.22	62.7	2928	14.5	2750	2850	2950	3950	5350
EE 2005S	3	20.4 _{-0.8}	14.1 ^{+0.8}	10.1 _{-0.4}	7.0 ^{+0.4}	5.9 _{-0.4}	5.9 _{-0.5}	44.9	33.5	31.9	1500	7.4	1350	1400	1450	—	2750
EE 2005K	3	20.0 ^{+0.7} _{-0.4}	12.8 ^{+0.7} _{-0.4}	10.2 _{-0.4}	6.3 ^{+0.5}	5.2 _{-0.4}	5.3 _{-0.4}	43	31	25.5	1340	7.5	1250	1300	1350	—	2600
EE 1905S	3	19.0 ±0.3	14.5 ±0.3	7.9 ±0.2	5.6 ±0.15	4.7 _{-0.5}	5.2 _{-0.4}	39.3	22.7	22.2	891	4.5	1000	1050	1100	—	2000
EE 1905	3	19.3 ±0.3	14.0 ±0.3	7.9 ±0.2	5.5 _{-0.2}	5.2 _{-0.5}	5.2 _{-0.5}	38	25	24.5	950	4.7	1150	1200	1250	—	2050
EEL 1905	3	19.0 ±0.3	14.0 ±0.3	13.55 ±0.2	11.3 ±0.3	4.85 ±0.25	4.85 ±0.2	61.7	23.4	23.4	1443	7	750	800	850	1100	1550
EE 1605	3	16.0 ^{+0.7} _{-0.5}	11.3 ^{+0.6}	8.2 _{-0.3}	5.7 ^{+0.4}	4.7 _{-0.3}	4.7 _{-0.4}	37.6	20.1	19.4	754	4	950	1000	1050	1450	1850
EEL 1605	3	16.0 ±0.3	12.1 ±0.3	12.45 ±0.2	10.25 ±0.2	4.0 ±0.2	4.8 ±0.2	55.6	19.3	17.6	1075	5.5	650	700	750	950	1350
EE 1306	3	12.65 ±0.45	9.2 ±0.3	6.5 _{-0.2}	4.5 ^{+0.3}	3.7 _{-0.3}	6.3 _{-0.3}	29.6	22.4	22.4	663	3.3	1250	1350	1450	2050	2250
EE 1304	3	12.65 ±0.45	9.2 ±0.3	6.5 _{-0.2}	4.5 ^{+0.3}	3.7 _{-0.3}	3.7 _{-0.3}	29.6	13	12.4	384	2	750	800	850	—	1300
EE 1005	3	10.2 ±0.3	7.8 ±0.3	5.55 ±0.15	4.15 ±0.15	2.4 ±0.2	5.0 _{-0.3}	25.4	12	11.6	305	2	800	850	900	1300	—

* Air gapping done on order

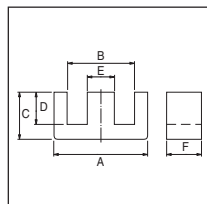


Fig. 3

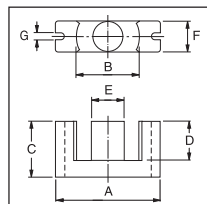


Fig. 4

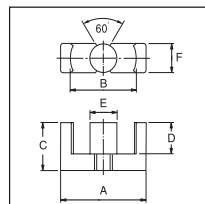


Fig. 5

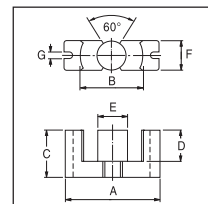


Fig. 6

EC CORES

Type	FIG.	DIMENSIONS (mm)							EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ $\pm 20\%$		
		A	B	C	D	E	F	G	Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ³)		CF129	CF196	CF138
EC 7017	4	70.0 ± 1.7	44.5 ± 1.2	34.5 ± 0.3	22.75 ± 0.45	16.4 ± 0.4	16.4 ± 0.4	4.75 ± 0.25	144	279	211	40176	252	4000	4200	4400
EC 4215	5	42.0 ± 0.6	29.4 min.	22.4 ± 0.2	15.4 ± 0.3	15.5 ± 0.2	15.5 ± 0.25	—	99.1	200	189	19820	103	4200	4350	4550
EC 4112	6	40.6 ± 1.0	26.3 ± 1.5	19.35 ± 0.3	13.5 ± 0.8	11.9 ± 0.6	11.9 ± 0.6	3.0 ± 0.5	89.3	121	106	10805	56	2800	2900	3000
EC 4013L	5	40.0 ± 0.5	29.6 min.	24.0 ± 0.2	17.0 ± 0.25	13.25 ± 0.25	13.4 ± 0.25	—	105	147	138	15435	79	2900	3100	3300
EC 4013	5	40.0 ± 0.5	29.6 min.	22.32 ± 0.2	15.75 ± 0.2	13.25 ± 0.25	13.4 ± 0.25	—	102	147	138	14994	73.5	3000	3100	3200
EC 3510	4	34.5 ± 0.8	22.75 ± 0.55	17.3 ± 0.15	11.9 ± 0.7	9.8 ± 0.6	9.8 ± 0.6	2.75 ± 0.25	77.4	84.3	71	6525	36	2100	2200	2300

ETD CORES

Type	FIG.	DIMENSIONS (mm)							EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ $\pm 20\%$		
		A	B	C	D	E	F		Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ³)		CF129	CF196	CF138
ETD 5922	7	59.8 ± 1.4	44.7 ± 1.1	31.0 ± 0.2	22.45 ± 0.45	21.65 ± 0.45	21.65 ± 0.45		139	368	368	51200	260	5450	5700	5950
ETD 5419	7	54.5 ± 1.3	41.2 ± 1.1	27.6 ± 0.2	20.2 ± 0.4	18.9 ± 0.4	18.9 ± 0.4		127	280	280	35500	192	4550	4750	4850
ETD 4917	7	48.5 ± 1.3 ± 0.9	36.1 ± 1.8	24.9 ± 0.4	18.5 ± 0.3	16.7 ± 0.8	16.7 ± 0.8		114	211	209	24000	120	3800	3950	4100
ETD 4415	7	43.8 ± 1.2 ± 0.8	32.5 ± 1.6	22.5 ± 0.4	16.1 min.	15.2 ± 0.8	15.2 ± 0.8		103	173	172	17800	90	3450	3600	3750
ETD 3913	7	38.9 ± 1.1 ± 0.7	29.3 ± 1.6	20.0 ± 0.4	14.2 min.	12.8 ± 0.6	12.8 ± 0.6		92.2	125	123	11500	60	2750	2850	2950
ETD 3411	7	34.0 ± 1.0 ± 0.6	25.6 ± 1.4	17.5 ± 0.4	11.8 min.	11.1 ± 0.6	11.1 ± 0.6		78.6	97.1	91.6	7640	39	2400	2500	2600
ETD 3411A	7	34.0 ± 1.0 ± 0.6	25.6 ± 1.4	13.0 ± 0.13	7.8 ± 0.13	10.8 ± 0.23	10.8 ± 0.23		63	98	92	6174	30.5	3250	3350	3450
ETD 2910	7	30.6 ± 1.6	22.0 ± 1.4	16.0 ± 0.4	10.7 ± 0.6	9.8 ± 0.6	9.8 ± 0.6		71	76	71	5377	28	2150	2250	2350

EER CORES

Type	FIG.	DIMENSIONS (mm)							EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ $\pm 20\%$		
		A	B	C	D	E	F		Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ³)		CF129	CF196	CF138
EER 4518A	7	45.0 ± 0.9	33.8 ± 0.8	17.5 ± 0.2	10.95 ± 0.25	17.6 ± 0.4	17.6 ± 0.4		81.2	232.7	226.1	18889	96	5900	6150	6400
EER 4320	7	42.8 ± 0.6	32.8 ± 0.5	21.4 ± 0.2	15.5 ± 0.2	17.3 ± 0.25	19.6 ± 0.3		98.3	233	231	22904	114	4950	5150	5350
EER 4217	7	42.15 ± 0.65	30.3 ± 0.5	25.0 ± 0.15	17.5 ± 0.15	17.3 ± 0.25	17.3 ± 0.25		107.5	240	235	25800	130	4600	4800	5000
EER 3913	7	39.0 ± 1.4	28.6 ± 1.0	22.2 ± 0.2	17.0 ± 0.25	12.8 ± 0.2	12.8 ± 0.2		101.6	131	129	13310	69	2650	2750	2850
EER 3511	7	35.0 ± 0.5	25.6 ± 1.0	22.5 ± 0.3	16.5 ± 0.3	11.3 ± 0.3	11.3 ± 0.3		97.3	111	100	10800	55	2450	2600	2750
EER 2811	7	28.5 ± 0.6 ± 0.5	21.2 min.	16.9 ± 0.25	12.5 ± 0.3 ± 0.25	9.9 ± 0.25	11.4 ± 0.25		75.5	83	77	6270	34	2200	2300	2400
EER 2811A	7	28.5 ± 0.6 ± 0.5	21.2 min.	14.0 ± 0.2	9.65 ± 0.25	9.9 ± 0.25	11.4 ± 0.25		64	82	77	5255	27	2650	2750	2900
EER 2811B	7	28.5 ± 0.6 ± 0.5	21.2 min.	9.4 ± 0.2	6.2 ± 0.15	9.9 ± 0.25	11.4 ± 0.25		50.8	78.9	77	4010	19	3200	3300	3400

EFF CORES

Type	FIG.	DIMENSIONS (mm)							EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ $\pm 20\%$		
		A	B	C	D	E	F	G	Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ³)		CF129	CF196	CF138
EFF 3009	8	30.0 ± 0.8	22.4 ± 0.75	15.0 ± 0.15	11.2 ± 0.3	14.6 ± 0.25	9.1 ± 0.2	4.9 ± 0.15	68	69	69	4692	22.5	1900	2000	2100
EFF 2509	8	25.0 ± 0.65	18.7 ± 0.6	12.5 ± 0.15	9.3 ± 0.25	11.4 ± 0.2	9.1 ± 0.2	5.2 ± 0.15	57	58	55	3300	16	1950	2000	2050
EFF 2007	8	20.0 ± 0.55	15.4 ± 0.5	10.0 ± 0.15	7.7 ± 0.25	8.9 ± 0.2	6.65 ± 0.15	3.6 ± 0.15	47	31	29	1460	7	1250	1300	1350
EFF 1505	9	15.0 ± 0.4	11.0 ± 0.35	7.5 ± 0.15	5.5 ± 0.25	5.3 ± 0.15	4.65 ± 0.15	2.4 ± 0.1	34	15	12.2	510	2.8	740	775	800

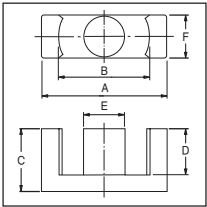


Fig. 7

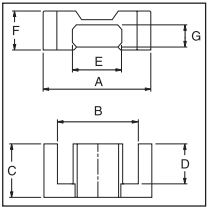


Fig. 8

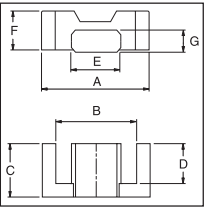


Fig. 9

RM CORES

Type	FIG.	DIMENSIONS (mm)								EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%				
		A	B1	B2	C	D	E	F	G	Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ²)		CF129	CF196	CF138	CF101	CF195
RM 14	10	41.6 ± 0.6	17.0 min.	29.5 ± 0.5	15.05 ± 0.15	10.55 ± 0.15	14.75 ± 0.25	34.3 ± 0.5	18.7 ± 0.3	70	200	170	14000	78	4950	5200	5450	8000	11000
RM 12	10	36.75 ± 0.65	13.4 min.	25.5 ± 0.5	11.8 ± 0.15	8.65 ± 0.15	12.6 ± 0.2	29.25 ± 0.55	16.1 ± 0.3	57.3	138	107	7907	42	4300	4500	4650	5950	8100
RM 10	10	27.85 ± 0.65	11.9 min.	21.65 ± 0.45	9.35 ± 0.15	6.2 ± 0.15	10.7 ± 0.2	24.15 ± 0.55	13.2 ± 0.3	44	98	90	4310	20.5	3800	4000	4200	5500	—
RM 8	10	22.75 ± 0.45	9.8 min.	17.3 ± 0.3	8.2 ± 0.15	5.5 ± 0.15	8.4 ± 0.15	19.25 ± 0.45	10.8 ± 0.2	38	64	55	2430	12	2250	2350	2500	3950	6750
RM 6	10	17.6 ± 0.35	8.4 min.	12.65 ± 0.25	6.2 ± 0.15	4.1 ± 0.15	6.3 ± 0.15	14.4 ± 0.3	8.0 ± 0.3	28.6	36.6	31	1050	5	1900	2000	2100	3000	5000
RM 5	10	14.3 ± 0.3	6.0 min.	10.4 ± 0.2	5.2 ± 0.1	3.25 ± 0.1	4.8 ± 0.12	12.05 ± 0.25	6.6 ± 0.2	23.2	24.8	18.1	574	2.9	1700	1800	1850	2450	3200
RM 4	10	10.8 ± 0.2	5.8 min.	8.15 ± 0.2	5.2 ± 0.1	3.6 ± 0.1	3.8 ± 0.12	9.6 ± 0.2	4.4 min.	23.3	13.8	11.5	322	1.5	950	1000	1050	1350	1800

PQ CORES

Type	FIG.	DIMENSIONS (mm)								EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%		
		A	B1	B2	C	D	E	F	G	Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ²)		CF129	CF196	CF138
PQ 3230	11	33.0 ± 0.5	19.0 min	27.5 ± 0.5	15.15 ± 0.15	10.65 ± 0.15	13.5 ± 0.25	22.0 ± 0.5	11.6 min.	74.7	167	142	12500	58	4150	4350	4550
PQ 2625	11	27.3 ± 0.46	15.5 min.	22.5 ± 0.46	12.35 ± 0.15	8.05 ± 0.15	12.0 ± 0.2	19.0 ± 0.45	10.5 min.	54.3	120	108	6530	32	4100	4300	4500
PQ 2610	11	27.2 ± 0.45	15.5 min.	22.5 ± 0.45	4.7 ± 0.13	1.5 ± 0.15	12.0 ± 0.2	19.0 ± 0.45	10.5 min.	27.1	105	93.8	2846	15	5300	5600	6900
PQ 2020	11	21.3 ± 0.4	12.0 min.	18.0 ± 0.4	10.1 ± 0.13	7.15 ± 0.15	8.8 ± 0.2	14.0 ± 0.4	7.9 min.	45.7	62.6	59.1	2850	14	2500	2650	2800
PQ 2010	11	21.2 ± 0.4	12.0 min.	17.6 min.	4.7 ± 0.13	1.5 ± 0.15	8.87 ± 0.2	14.0 ± 0.4	7.9 min.	22.7	62.5	59.0	1419	9	4600	4800	4900

EP CORES

Type	FIG.	DIMENSIONS (mm)								EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%				
		A	B	C	D	E	F	G		Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ²)		CF129	CF196	CF138	CF101	CF195
EP 13	12	12.5 ± 0.3	10.0 ± 0.3	6.5 ± 0.15	4.65 ± 0.15	4.35 ± 0.15	8.8 ± 0.2	2.36 ± 0.13		24.5	19.5	14.9	478	4.8	1300	1380	1450	2050	3500
EP 10	12	11.5 ± 0.3	9.4 ± 0.2	5.1 ± 0.15	3.75 ± 0.15	3.3 ± 0.15	7.6 ± 0.2	1.8 ± 0.13		19.6	11.3	8.55	221	2.8	950	1000	1050	1150	2250
EP 7	12	9.2 ± 0.2	7.4 ± 0.2	3.75 ± 0.15	2.65 ± 0.15	3.3 ± 0.15	6.35 ± 0.15	1.7 ± 0.1		15.7	10.3	8.55	162	1.4	1050	1100	1150	1240	2400

PTS CORES

Type	FIG.	DIMENSIONS (mm)									EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%		
		A	B1	B2	C	D	E1	E2	F		Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ²)		CF129	CF196	CF138
PT 2311	13	22.9 ± 0.45	18.3 ± 0.35	3.8 ± 0.6	5.5 ± 0.15	3.8 ± 0.15	9.7 ± 0.2	5.1 ± 0.15	15.2 ± 0.3		28.6	61.0	53.6	1740	12	3100	3300	3500
TS 2311	14	22.9 ± 0.45	18.3 ± 0.35	13.2 min	5.5 ± 0.15	3.8 ± 0.15	9.7 ± 0.2	5.1 ± 0.15	15.2 ± 0.3									
PT 1811	13	17.9 ± 0.3	15.1 ± 0.25	3.8 ± 0.6	5.3 ± 0.15	3.7 ± 0.15	7.4 ± 0.15	3.1 ± 0.12	11.9 ± 0.3		27.2	40.6	32.9	1110	6	2200	2300	2400
TS 1811	14	17.9 ± 0.3	15.1 ± 0.25	10.5 min.	5.3 ± 0.15	3.7 ± 0.15	7.4 ± 0.15	3.1 ± 0.12	11.9 ± 0.3									
PT 1408	13	14.0 ± 0.2	11.8 ± 0.2	3.3 ± 0.6	4.15 ± 0.15	2.9 ± 0.15	5.9 ± 0.15	3.1 ± 0.12	9.4 ± 0.3		22.5	22	19.9	495	2.8	1400	1500	1600
TS 1408	14	14.0 ± 0.2	11.8 ± 0.2	8.5 min	4.15 ± 0.15	2.9 ± 0.15	5.9 ± 0.15	3.1 ± 0.12	9.4 ± 0.3									

* A_e measured by pairing PT and TS core

POT CORES

Type	FIG.	DIMENSIONS (mm)								EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%				
		A	B1	B2	C	D	E1	E2	F	Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ²)		CF129	CF196	CF138	CF101	CF195
P 3019	15	30.0 ± 0.5	25.4 ± 0.4	4.8 ± 0.6	9.4 ± 0.12	6.63 ± 0.13	13.32 ± 0.2	5.55 ± 0.15	20.6 ± 0.5	45.2	137	115	6190	36	6000	6200	6400	8500	12200
P 2616	15	25.5 ± 0.5	21.6 ± 0.45	3.8 ± 0.6	8.05 ± 0.12	5.63 ± 0.13	11.3 ± 0.2	5.55 ± 0.15	18.05 ± 0.4	37.2	93	74	3460	21	4750	4900	5100	6700	9400
P 2213	15	21.6 ± 0.4	18.2 ± 0.3	3.8 ± 0.6	6.7 ± 0.1	4.73 ± 0.13	9.25 ± 0.15	4.55 ± 0.15	15.3 ± 0.5	31.6	63	50	2000	13	3650	3800	3950	5100	7000
P 1811	15	18.0 ± 0.4	15.2 ± 0.25	3.4 ± 0.6	5.25 ± 0.1	3.72 ± 0.13	7.45 ± 0.15	3.1 ± 0.12	12.85 ± 0.5	25.9	43	35	1120	7	2900	3000	3100	3950	5300

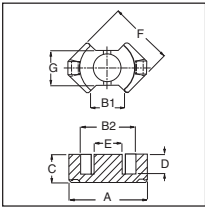


Fig. 10

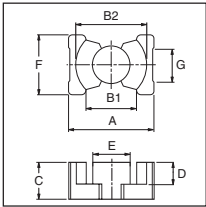


Fig. 11

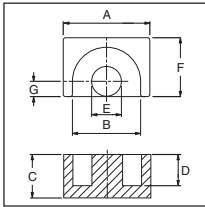


Fig. 12

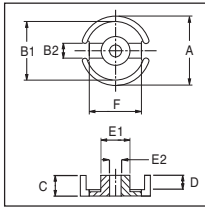


Fig. 13

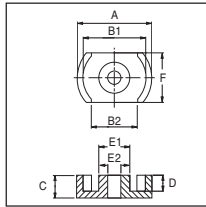


Fig. 14

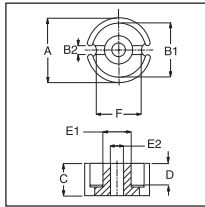


Fig. 15

UU CORES

Type	FIG.	DIMENSIONS (mm)					EFFECTIVE PARAMETERS			WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%				
		A	B	C	D	E	Le(mm)	Ae(mm ²)	Ve(mm ³)		CF129	CF196	CF138	CF101	CF195
UU 100	16	101.6 ± 2.0	49.0 min.	57.1 ± 0.4	31.7 ± 0.4	25.2 ± 0.7	300	620	186000	1000	4300	4500	4700	6350	—
UU 100A	16	101.6 ± 2.0	49.0 min.	57.1 ± 0.4	31.7 ± 0.4	12.7 ± 0.38	308	321	98868	494	2150	2250	2350	—	—
UU 9316	16	93.0 ± 1.8	37.0 ± 1.2	76.0 ± 0.5	48.0 ± 0.8	16.0 ± 0.6	354	448	158576	780	2600	2700	2800	3700	—
UU 8020	16	80.0 ± 2.0	40.0 ± 0.8	49.0 ± 0.5	29.0 ± 0.3	20.0 ± 0.5	258.8	400	103533	530	3550	3750	3900	—	—
UU 4628	16	46.8 ± 0.7	17.5 min.	39.5 ± 0.25	25.5 ± 0.75	28.0 ± 0.8	182.8	397.7	72699	360	4500	4700	4900	6450	—
UU 2537	16	24.5 ± 0.7	9.9 ± 0.3	18.4 ± 0.5	10.85 ± 0.25	7.55 ± 0.25	86.9	57	4955	25	1200	1250	1300	—	2550
UU 2332	16	23.0 ± 0.6	8.0 ± 0.3	15.7 ± 0.3	8.5 ± 0.25	7.55 ± 0.25	74	61	4514	25	1700	1800	1900	2450	3350
UU 2130A	16	21.0 ± 0.6	6.3 ± 0.3	15.8 ± 0.25	8.75 ± 0.25	7.5 ± 0.3	70.2	54.3	3814	19	1450	1550	1650	2100	3150
UU 2130	16	21.0 ± 0.6	6.3 ± 0.3	15.3 ± 0.5	8.25 ± 0.25	7.5 ± 0.3	68	55	3740	19	1550	1600	1650	2000	—
UU 2036	16	20.0 ± 0.4	8.0 $^{+0.4}_{-0.2}$	18.0 $^{+0.3}_{-0.2}$	12.0 ± 0.2	6.0 ± 0.2	82.8	36	2980	15	—	—	—	—	1900
UU 1622	16	16.0 ± 0.3	7.0 ± 0.3	11.0 ± 0.2	7.0 ± 0.15	6.0 ± 0.15	55.2	25.8	1422	7.5	850	900	950	1200	1950
UU 1620	16	16.0 ± 0.2	7.0 ± 0.3	10.6 ± 0.2	6.0 ± 0.15	6.0 ± 0.15	52	27	1404	7.6	—	—	—	1320	2200
UU 1522	16	15.2 ± 0.7	5.2 ± 0.3	11.1 ± 0.5	6.1 ± 0.35	6.45 ± 0.25	48	32	1536	9	1250	1300	1350	1650	2500
UU 1116	16	10.5 ± 0.2	5.5 ± 0.2	7.9 ± 0.2	5.3 ± 0.15	5.0 ± 0.15	40	13	520	2.8	600	650	700	900	1300
UU 1016	16	10.1 ± 0.2	4.3 ± 0.2	8.2 ± 0.2	5.2 ± 0.2	2.9 ± 0.2	38.4	8.6	330	1.7	425	450	475	600	900

I CORES

Type	FIG.	DIMENSIONS (mm)			EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%		
		A	B	C	Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ³)		CF129	CF196	CF138
I 10025	17	101.6 ± 2.0	25.4 ± 0.8	25.4 ± 0.8	—	—	—	—	300	—	—	—
I 9330	17	93.0 ± 1.8	27.5 ± 0.6	30.0 ± 0.6	—	—	—	—	370	—	—	—
I 9316	17	93.0 ± 1.8	27.5 ± 0.6	16.0 ± 0.6	—	—	—	—	200	—	—	—

EVD, EFC & EED CORES

Type	FIG.	DIMENSIONS (mm)							EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%			
		A	B	C	D	E	F	G	Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ³)		CF129	CF196	CF138	CF101
EVD 2513	18	25.0 $^{+0.8}_{-0.7}$	19.2 ± 0.4	12.6 ± 0.25	9.55 ± 0.25	8.8 ± 0.25	12.7 -0.5	8.3 ± 0.3	60	73.0	—	4300	23.0	2500	2600	2700	3600
EFC 2508	19	25.1 ± 0.4	21.0 min.	12.5 ± 0.2	9.0 ± 0.2	11.5 ± 0.2	8.0 ± 0.2	3.95 ± 0.15	59.2	46.4	43	2748	13.5	1550	1650	1750	—
EED 2911	20	29.3 ± 0.7	22.1 ± 0.6	14.6 ± 0.2	11.0 ± 0.3	8.4 ± 0.3	11.6 ± 0.3	—	69.5	83	82.1	5770	29	2450	2550	2650	—

EI CORES

Type	FIG.	DIMENSIONS (mm)							EFFECTIVE PARAMETERS				WEIGHT (gms/pair)	AL(nH) $\pm 30\%$ -20%				
		A	B	C	D	E	F	G	Le(mm)	Ae(mm ²)	Amin(mm ²)	Ve(mm ³)		CF129	CF196	CF138	CF101	CF195
EI 4012	21	40.0 ± 0.5	27.2 $^{+1.0}_{-0.5}$	27.0 $^{+0.5}_{-0.5}$	20.0 $^{+0.5}_{-0.7}$	12.0 $^{+0.5}_{-0.7}$	12.0 $^{+0.5}_{-0.7}$	7.5 ± 0.3	76.8	148	136	11400	59	3650	3800	3950	5200	—
EI 3512T	21	35.0 $^{+0.8}_{-0.5}$	25.0 $^{+0.8}_{-0.5}$	23.8 $^{+0.7}_{-0.6}$	18.0 $^{+0.6}_{-0.6}$	10.3 $^{+0.6}_{-0.6}$	12.0 $^{+0.6}_{-0.6}$	5.5 ± 0.2	67.3	120	117	8090	41	3400	3500	3600	—	—
EI 3313	21	33.0 ± 0.5	23.2 $^{+0.8}_{-0.6}$	23.3 ± 0.3	19.05 ± 0.3	9.7 ± 0.3	12.7 ± 0.3	5.0 ± 0.2	66.9	118.1	108	7901	40	3400	3500	3600	4750	—
EI 3011	21	30.0 $^{+0.7}_{-0.2}$	20.0 $^{+0.7}_{-0.2}$	21.0 $^{+0.6}_{-0.2}$	16.0 $^{+0.6}_{-0.7}$	11.0 $^{+0.6}_{-0.7}$	11.0 $^{+0.6}_{-0.7}$	5.5 ± 0.2	58.5	110.4	106.5	6458	33	3600	3700	3800	—	—
EI 2811	21	28.0 ± 0.4	18.6 $^{+0.8}_{-0.8}$	17.3 ± 0.3	12.8 ± 0.2	7.5 $^{+0.8}_{-0.8}$	11.0 $^{+0.6}_{-0.6}$	3.5 ± 0.2	49.5	84.4	76	4170	23	3300	3400	3500	4600	6950

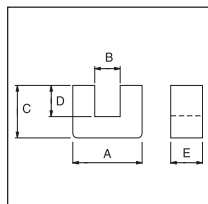


Fig. 16

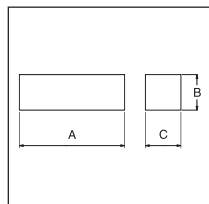


Fig. 17

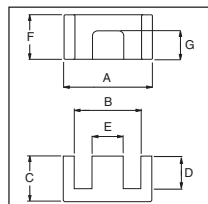


Fig. 18

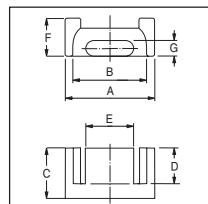


Fig. 19

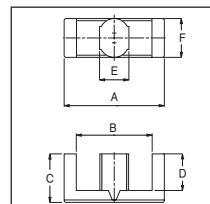


Fig. 20

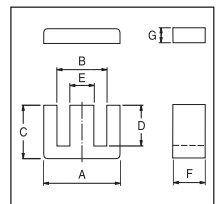


Fig. 21

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