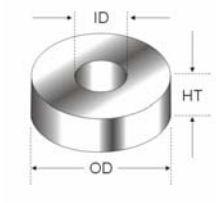
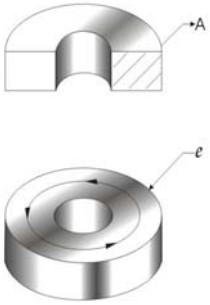
Karson Electronics Co., Ltd.
Fe-Si Toroidal Core

◆ Feature

1.High saturation flux density to 15000 gauss
2.Excellent DC bias characteristic
3.Low core loss (~650mW/cm3 @ 50KHz/1000gauss)





◆ Application

1.Power factor correction(PFC) chokes
2.Buck/boost inductors for high power supply systems
3.Chokes for inverters and reactors for electric vehicles

◆ Configuration

T 106 - SF 060
(1) (2) (3) (4)

(1) Core Type (T: toroidal core)
(2) Size designation (O.D. size in inch)
(3) Material Code for Fe-Si
(4) Permeability Code

◆ Dimension & Electrical Specification

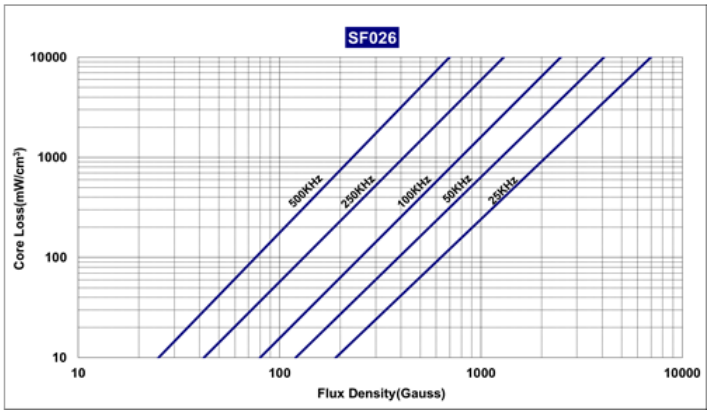
PART NO.	O.D (Max.)		I.D. (Min.)		HT (Max.)		AL	L	A	V	CSC P/N	Arnold P/N	POCO P/N
	inch	mm	inch	mm	inch	mm	nH/N2	cm	cm^2	cm^3			
T031-SF026							11				CK078026	FS-031026-8	NA
T031-SF040							17				NA	FS-031040-8	NA
T031-SF060	0.335	8.51	0.135	3.43	0.150	3.81	25	1.787	0.0615	0.1099	CK078060	FS-031060-8	NA
T031-SF075							31				CK078075	FS-031075-8	NA
T031-SF090							37				CK078090	FS-031090-8	NA
T038-SF026							14				CK097026	FS-038026-8	NPF038026
T038-SF040							21				NA	FS-038040-8	NPF038040
T038-SF060	0.405	10.29	0.168	4.27	0.180	4.57	32	2.18	0.0945	0.2060	CK097060	FS-038060-8	NPF038060
T038-SF075							40				CK097075	FS-038075-8	NPF038075
T038-SF090							48				CK097090	FS-038090-8	NPF038090
T038-SF026A							11				CK096026	FS-039026-8	NA
T038-SF040A							17				NA	FS-039040-8	NA
T038-SF060A	0.405	10.29	0.168	4.27	0.150	3.81	25	2.18	0.0752	0.1639	CK096060	FS-039060-8	NA
T038-SF075A							32				CK096075	FS-039075-8	NA
T038-SF090A							38				CK096090	FS-039090-8	NA
T040-SF026							14				CK102026	FS-040026-2	NPF040026
T040-SF040							21				NA	FS-040040-2	NPF040040
T040-SF060	0.425	10.80	0.180	4.57	0.180	4.57	32	2.38	0.1000	0.2380	CK102060	FS-040060-2	NPF040060
T040-SF075							40				CK102075	FS-040075-2	NPF040075
T040-SF090							48				CK102090	FS-040090-2	NPF040090
T044-SF026							11				CK112026	FS-044026-2	NA
T044-SF040							17				NA	FS-044040-2	NA
T044-SF060	0.468	11.90	0.232	5.89	0.186	4.72	26	2.69	0.0906	0.2437	CK112060	FS-044060-2	NA
T044-SF075							32				CK112075	FS-044075-2	NA
T044-SF090							38				CK112090	FS-044090-2	NA
T050-SF026							12				CK127026	FS-050026-2	NPF050026
T050-SF040							18				NA	FS-050040-2	NPF050040
T050-SF060	0.530	13.46	0.275	6.99	0.217	5.51	27	3.12	0.1140	0.3557	CK127060	FS-050060-2	NPF050060
T050-SF075							34				CK127075	FS-050075-2	NPF050075
T050-SF090							40				CK127090	FS-050090-2	NPF050090
T065-SF026							15				CK166026	FS-065026-2	NPF065026
T065-SF040							24				NA	FS-065040-2	NPF065040
T065-SF060	0.685	17.40	0.375	9.53	0.280	7.11	36	4.11	0.1920	0.7891	CK166060	FS-065060-2	NPF065060
T065-SF075							43				CK166075	FS-065075-2	NPF065075
T065-SF090							52				CK166090	FS-065090-2	NPF065090
T068-SF026							19				CK172026	FS-068026-2	NPF068026
T068-SF040							28.5				NA	FS-068040-2	NPF068040
T068-SF060	0.710	18.03	0.355	9.02	0.280	7.11	43	4.14	0.2320	0.9605	CK172060	FS-068060-2	NPF068060
T068-SF075							53				CK172075	FS-068075-2	NPF068075
T068-SF090							64				CK172090	FS-068090-2	NPF068090
T080-SF026							14				CK203026	FS-080026-2	NPF080026
T080-SF040							21				NA	FS-080040-2	NPF080040
T080-SF060	0.830	21.10	0.475	12.07	0.280	7.11	32	5.09	0.2260	1.1510	CK203060	FS-080060-2	NPF080060
T080-SF075							41				CK203075	FS-080075-2	NPF080075
T080-SF090							49				CK203090	FS-080090-2	NPF080090
T090-SF026							19				CK229026	FS-090026-2	NPF090026
T090-SF040							29				NA	FS-090040-2	NPF090040
T090-SF060	0.930	23.62	0.527	13.39	0.330	8.38	43	5.67	0.3310	1.8871	CK229060	FS-090060-2	NPF090060
T090-SF075							54				CK229075	FS-090075-2	NPF090075
T090-SF090							65				CK229090	FS-090090-2	NPF090090
T092-SF026							22				CK234026	FS-092026-2	NPF092026
T092-SF040							34				NA	FS-092040-2	NPF092040
T092-SF060	0.956	24.30	0.542	13.77	0.382	9.70	51	5.88	0.3880	2.2814	CK234060	FS-092060-2	NPF092060
T092-SF075							63				CK234075	FS-092075-2	NPF092075
T092-SF090							76				CK234090	FS-092090-2	NPF092090

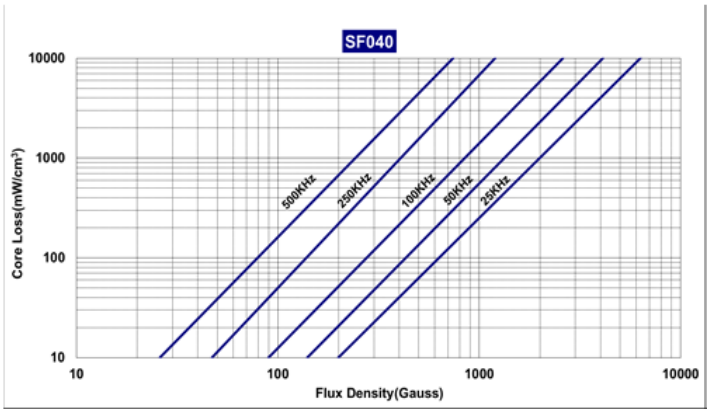
◆ Dimension & Electrical Specification

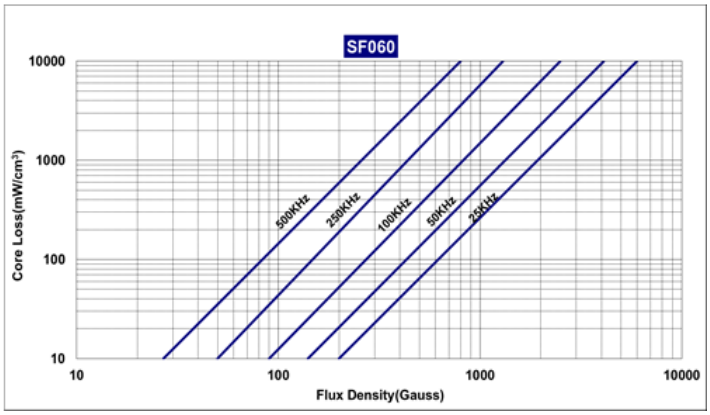
PART NO.	O.D (Max.)		I.D. (Min.)		HT (Max.)		AL	L	A	V	CSC P/N	Arnold P/N	POCO P/N
	inch	mm	inch	mm	inch	mm	nH/N^2	cm	cm^2	cm^3			
T106-SF026							32				CK270026	FS-106026-2	NPF106026
T106-SF040							50				NA	FS-106040-2	NPF106040
T106-SF060	1.090	27.70	0.555	14.10	0.472	11.99	75	6.35	0.6540	4.1540	CK270060	FS-106060-2	NPF106060
T106-SF075							94				CK270075	FS-106075-2	NPF106075
T106-SF090							113				CK270090	FS-106090-2	NPF106090
T106-SF026A							25				CK270026E8	FS-107026-2	NA
T106-SF040A							39				NA	FS-107040-2	NA
T106-SF060A	1.090	27.70	0.555	14.10	0.372	9.45	59	6.35	0.4970	3.1600	CK270060E8	FS-107060-2	NA
T106-SF075A							73				CK270075E8	FS-107075-2	NA
T106-SF090A							88				CK270090E8	FS-107090-2	NA
T106-SF026B							40				CK270026E14	FS-108026-2	NA
T106-SF040B							62				NA	FS-108040-2	NA
T106-SF060B	1.090	27.70	0.555	14.10	0.591	15.00	94	6.35	0.8190	5.2000	CK270060E14	FS-108060-2	NA
T106-SF075B							117				CK270075E14	FS-108075-2	NA
T106-SF090B							141				CK270090E14	FS-108090-2	NA
T106-SF026C							52				CK270026E18	FS-109026-2	NA
T106-SF040C							80				NA	FS-109040-2	NA
T106-SF060C	1.090	27.70	0.555	14.10	0.748	19.00	120	6.35	1.0100	6.4300	CK270060E18	FS-109060-2	NA
T106-SF075C							150				CK270075E18	FS-109075-2	NA
T106-SF090C							180				CK270090E18	FS-109090-2	NA
T130-SF026							28				CK330026	FS-130026-2	NPF130026
T130-SF040							41				NA	FS-130040-2	NPF130040
T130-SF060	1.332	33.83	0.760	19.30	0.457	11.61	61	8.15	0.6720	5.4768	CK330060	FS-130060-2	NPF130060
T130-SF075							76				CK330075	FS-130075-2	NPF130075
T130-SF090							91				CK330090	FS-130090-2	NPF130090
T130-SF026A							22				CK330026E8	FS-131026-2	NA
T130-SF040A							34				NA	FS-131040-2	NA
T130-SF060A	1.332	33.83	0.760	19.30	0.382	9.70	51	8.15	0.5511	4.4902	CK330060E8	FS-131060-2	NA
T130-SF075A							63				CK330075E8	FS-131075-2	NA
T130-SF090A							76				CK330090E8	FS-131090-2	NA
T130-SF026B							34				CK330026E14	FS-133026-2	NA
T130-SF040B							53				NA	FS-133040-2	NA
T130-SF060B	1.332	33.83	0.760	19.30	0.591	15.00	80	8.15	0.8740	7.1200	CK330060E14	FS-133060-2	NA
T130-SF075B							100				CK330075E14	FS-133075-2	NA
T130-SF090B							120				CK330090E14	FS-133090-2	NA
T130-SF026C							44				CK330026E18	FS-134026-2	NA
T130-SF040C							68				NA	FS-134040-2	NA
T130-SF060C	1.332	33.83	0.760	19.30	0.748	19.00	102	8.15	1.1024	8.9812	CK330060E18	FS-134060-2	NA
T130-SF075C							127				CK330075E18	FS-134075-2	NA
T130-SF090C							153				CK330090E18	FS-134090-2	NA
T135-SF026							16				CK343026	FS-135026-2	NPF135026
T135-SF040							25				NA	FS-135040-2	NPF135040
T135-SF060	1.385	35.20	0.888	22.60	0.387	9.83	38	8.95	0.4540	4.0633	CK343060	FS-135060-2	NPF135060
T135-SF075							47				CK343075	FS-135075-2	NPF135075
T135-SF090							57				CK343090	FS-135090-2	NPF135090
T141-SF026							24				CK358026	FS-141026-2	NPF141026
T141-SF040							37				NA	FS-141040-2	NPF141040
T141-SF060	1.445	36.70	0.848	21.50	0.444	11.28	56	8.98	0.6780	6.0884	CK358060	FS-141060-2	NPF141060
T141-SF075							70				CK358075	FS-141075-2	NPF141075
T141-SF090							84				CK358090	FS-141090-2	NPF141090
T157-SF026							35				CK400026	FS-157026-2	NPF157026
T157-SF040							54				NA	FS-157040-2	NPF157040
T157-SF060	1.602	40.70	0.918	23.30	0.605	15.37	81	9.84	1.0720	10.5485	CK400060	FS-157060-2	NPF157060
T157-SF075							101				CK400075	FS-157075-2	NPF157075
T157-SF090							121				CK400090	FS-157090-2	NPF157090
T184-SF026							59				CK467026	FS-184026-2	NPF184026
T184-SF040							90				NA	FS-184040-2	NPF184040
T184-SF060	1.875	47.60	0.918	23.30	0.745	18.92	135	10.74	1.9900	21.3730	CK467060	FS-184060-2	NPF184060
T184-SF075							169				CK467075	FS-184075-2	NPF184075
T184-SF090							202				CK467090	FS-184090-2	NPF184090
T185-SF026							37				CK468026	FS-185026-2	NPF185026
T185-SF040							57				NA	FS-185040-2	NPF185040
T185-SF060	1.875	47.60	1.098	27.90	0.635	16.13	86	11.63	1.3400	15.5840	CK468060	FS-185060-2	NPF185060
T185-SF075							107				CK468075	FS-185075-2	NPF185075
T185-SF090							128				CK468090	FS-185090-2	NPF185090
T200-SF026							32				CK508026	FS-200026-2	NPF200026
T200-SF040							49				NA	FS-200040-2	NPF200040
T200-SF060	2.035	51.70	1.218	30.90	0.565	14.35	73	12.73	1.2510	15.9290	CK508060	FS-200060-2	NPF200060
T200-SF075							91				CK508075	FS-200075-2	NPF200075
T200-SF090							109				CK508090	FS-200090-2	NPF200090
T225-SF026							33				CK572026	FS-225026-2	NPF225026
T225-SF040							50				NA	FS-225040-2	NPF225040
T225-SF060	2.285	58.00	1.368	34.70	0.585	14.86	75	14.3	1.4440	20.6500	CK572060	FS-225060-2	NPF225060
T225-SF075							94				CK572075	FS-225075-2	NPF225075
T225-SF090							112				CK572090	FS-225090-2	NPF225090
T226-SF026							60				CK571026	FS-226026-2	NPF226026
T226-SF040							92				NA	FS-226040-2	NPF226040
T226-SF060	2.285	58.00	1.007	25.60	0.635	16.10	138	12.5	2.2900	28.6000	CK571060	FS-226060-2	NPF226060
T226-SF075							172				CK571075	FS-226075-2	NPF226075
T226-SF090							207				CK571090	FS-226090-2	NPF226090

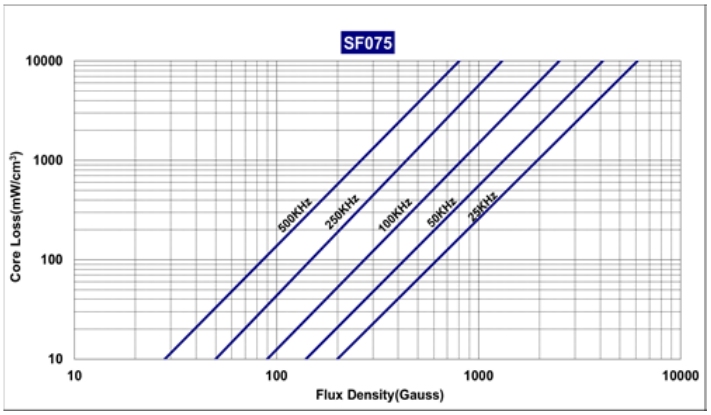
* AL tolerance = ± 8%

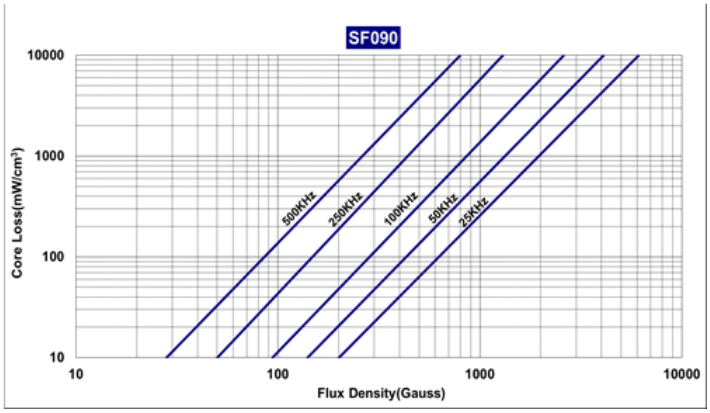
◆ Core Loss











◆ Permeability V.S. Frequency & DC Bias