

Surface Mount shielded Power Inductors SF Series



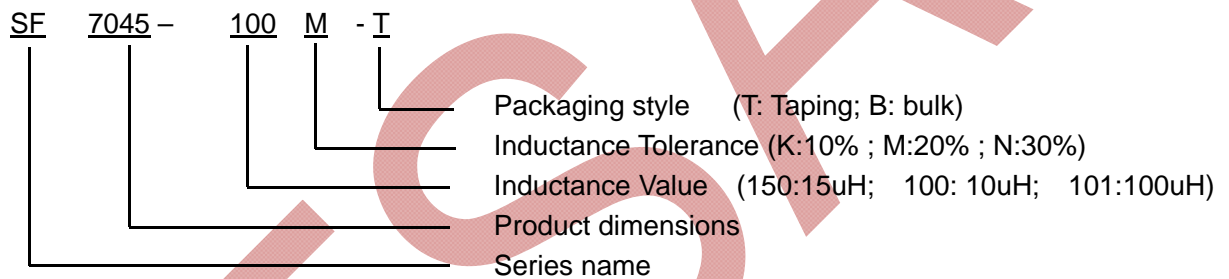
FEATURES

- To be high saturation for surface mounting.
- Surface mount inductor with high current rating.
- Low resistance to keep power loss minimum.
- Packed in embossed carrier tape and can be used by automatic mounting machine.

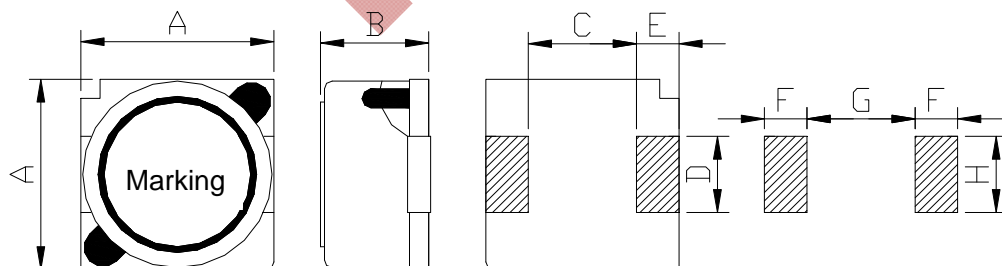
APPLICATIONS

- Excellent for power line DC-DC conversion applications used in hard disk, notebook computers and other electronic equipment.

PRODUCT IDENTIFICATION



SHAPES AND DIMENSIONS



Series	Dimensions(mm)							
	A	B	C	D	E	F	G	H
SF6025	6.0±0.3	2.7Max.	4.0±0.2	2.0±0.2	0.9	1.5	4.0	2.2
SF6028	6.0±0.3	3.1Max.	4.0±0.2	2.0±0.2	0.9	1.5	4.0	2.2
SF6045	6.0±0.3	4.8Max.	4.0±0.2	2.0±0.2	0.9	1.5	4.0	2.2
SF7032	7.0±0.3	3.5Max.	4.9±0.2	2.0±0.2	0.9	1.5	4.9	2.2
SF7045	7.0±0.3	4.8Max.	4.9±0.2	2.0±0.2	0.9	1.5	4.9	2.2
SF7055	7.0±0.3	5.8Max.	4.9±0.2	2.0±0.2	0.9	1.5	4.9	2.2
SF10145	10.1±0.3	4.8Max.	6.0±0.2	3.0±0.2	2.0	2.5	5.6	3.2
SF10165	10.1±0.3	7.0Max.	6.0±0.2	3.0±0.2	2.0	2.5	5.6	3.2
SF12555	12.5±0.3	5.8Max.	8.0±0.2	3.0±0.2	2.0	2.5	8.6	3.2
SF12565	12.5±0.3	6.9Max.	8.0±0.2	3.0±0.2	2.0	2.5	8.6	3.2
SF12575	12.5±0.3	7.9Max.	8.0±0.2	3.0±0.2	2.0	2.5	8.6	3.2

ELECTRICAL CHARACTERISTICS

- **Isat:** DC current at which the inductance drops 30% from its value without current.
- **Irms:** Current that causes a 40°C temperature rise from 25°C ambient.
- **Rated Current:** DC current at which the inductance drops 30% from its value without current.

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF6025-4R7NT	4.7	100	0.037	1.50	1.80
SF6025-6R8NT	6.8	100	0.053	1.30	1.50
SF6025-100MT	10	100	0.069	1.00	1.30
SF6025-150MT	15	100	0.102	0.88	1.10
SF6025-220MT	22	100	0.146	0.73	0.94
SF6025-330MT	33	100	0.216	0.59	0.79
SF6025-470MT	47	100	0.288	0.48	0.67
SF6025-680MT	68	100	0.444	0.42	0.54
SF6025-101MT	100	100	0.600	0.33	0.47

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF6028-4R7NT	4.7	100	0.034	1.60	2.50
SF6028-6R8NT	6.8	100	0.043	1.50	2.20
SF6028-100MT	10	100	0.064	1.30	1.80
SF6028-150MT	15	100	0.090	1.00	1.40
SF6028-220MT	22	100	0.125	0.77	1.30
SF6028-330MT	33	100	0.178	0.69	1.10
SF6028-470MT	47	100	0.252	0.59	0.92
SF6028-680MT	68	100	0.348	0.50	0.78
SF6028-101MT	100	100	0.516	0.42	0.64
SF6028-151MT	150	100	0.780	0.34	0.50
SF6028-221MT	220	100	1.176	0.26	0.38

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Rated Current(A)
SF6045-1R0NT	1.0	100	0.023	2.70
SF6045-1R5NT	1.5	100	0.026	2.30
SF6045-2R2NT	2.2	100	0.028	1.90
SF6045-3R3NT	3.3	100	0.035	1.80
SF6045-4R7NT	4.7	100	0.040	1.40
SF6045-6R8NT	6.8	100	0.045	1.20
SF6045-100MT	10	100	0.060	1.00
SF6045-150MT	15	100	0.070	0.80
SF6045-220MT	22	100	0.110	0.65
SF6045-330MT	33	100	0.165	0.55
SF6045-470MT	47	100	0.210	0.45
SF6045-680MT	68	100	0.285	0.37
SF6045-101MT	100	100	0.420	0.30
SF6045-151MT	150	100	0.630	0.25
SF6045-181MT	180	100	0.720	0.22
SF6045-221MT	220	100	0.820	0.20
SF6045-271MT	270	100	1.100	0.18
SF6045-331MT	330	100	1.200	0.17
SF6045-391MT	390	100	1.700	0.16
SF6045-471MT	470	100	1.900	0.14
SF6045-561MT	560	100	2.150	0.13
SF6045-681MT	680	100	3.300	0.12
SF6045-821MT	820	100	3.650	0.11
SF6045-102MT	1000	100	4.150	0.10

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Rated Current(A)
SF7032-3R3NT	3.3	100	0.028	1.90
SF7032-4R7NT	4.7	100	0.044	1.70
SF7032-6R8NT	6.8	100	0.050	1.60
SF7032-100MT	10	100	0.064	1.40
SF7032-150MT	15	100	0.090	1.10
SF7032-220MT	22	100	0.132	0.96
SF7032-330MT	33	100	0.192	0.75
SF7032-470MT	47	100	0.288	0.67
SF7032-680MT	68	100	0.372	0.59
SF7032-101MT	100	100	0.540	0.45
SF7032-151MT	150	100	0.780	0.37
SF7032-221MT	220	100	1.260	0.29
SF7032-331MT	330	100	2.000	0.22
SF7032-471MT	470	100	2.460	0.20
SF7032-681MT	680	100	3.780	0.16
SF7032-102MT	1000	100	5.730	0.13

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF7045-3R3NT	3.3	100	0.024	2.50	2.30
SF7045-4R7NT	4.7	100	0.036	2.00	2.10
SF7045-6R8NT	6.8	100	0.047	1.70	1.74
SF7045-100MT	10	100	0.056	1.30	1.78
SF7045-150MT	15	100	0.063	1.10	1.53
SF7045-220MT	22	100	0.074	0.90	1.34
SF7045-330MT	33	100	0.116	0.82	1.09
SF7045-470MT	47	100	0.150	0.75	0.92
SF7045-680MT	68	100	0.210	0.60	0.77
SF7045-101MT	100	100	0.300	0.50	0.65
SF7045-151MT	150	100	0.408	0.40	0.55
SF7045-221MT	220	100	0.624	0.33	0.45
SF7045-331MT	330	100	0.888	0.25	0.37
SF7045-471MT	470	100	1.260	0.22	0.31
SF7045-681MT	680	100	1.776	0.20	0.27
SF7045-102MT	1000	100	2.736	0.14	0.25

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF7055-1R5NT	1.5	100	0.023	6.20	4.00
SF7055-2R2NT	2.2	100	0.029	5.30	3.50
SF7055-3R3NT	3.3	100	0.032	4.30	3.30
SF7055-3R9NT	3.9	100	0.034	4.00	3.20
SF7055-4R7NT	4.7	100	0.037	3.60	3.10
SF7055-6R8NT	6.8	100	0.045	3.00	2.80
SF7055-100MT	10	100	0.051	2.60	2.50
SF7055-150MT	15	100	0.067	2.10	2.20
SF7055-180MT	18	100	0.074	1.90	2.10
SF7055-220MT	22	100	0.084	1.70	2.00
SF7055-330MT	33	100	0.114	1.40	1.70
SF7055-470MT	47	100	0.169	1.20	1.40
SF7055-680MT	68	100	0.260	0.90	1.10
SF7055-101MT	100	100	0.381	0.80	0.90

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF10145-3R3NT	3.3	1.00	0.020	4.90	3.70
SF10145-5R6NT	5.6	1.00	0.027	3.80	3.20
SF10145-100MT	10	1.00	0.044	3.00	2.50
SF10145-150MT	15	1.00	0.057	2.40	2.20
SF10145-220MT	22	1.00	0.071	2.10	1.90
SF10145-330MT	33	1.00	0.099	1.60	1.70
SF10145-470MT	47	1.00	0.120	1.40	1.50
SF10145-680MT	68	1.00	0.168	1.20	1.30
SF10145-101MT	100	1.00	0.240	1.00	1.10
SF10145-151MT	150	1.00	0.420	0.79	0.81
SF10145-221MT	220	1.00	0.564	0.65	0.70
SF10145-331MT	330	1.00	0.816	0.54	0.58
SF10145-471MT	470	1.00	1.236	0.47	0.47
SF10145-681MT	680	1.00	1.920	0.38	0.38
SF10145-102MT	1000	1.00	3.360	0.32	0.29
SF10145-152MT	1500	1.00	4.080	0.22	0.26

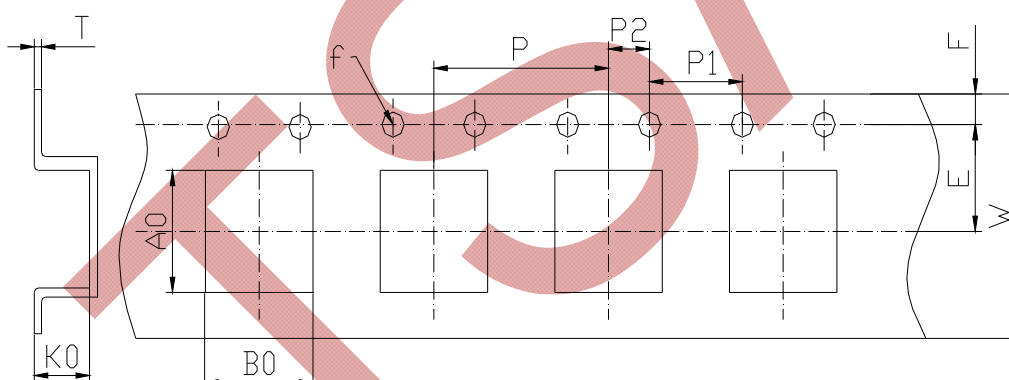
Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF10165-1R5NT	1.5	1.00	0.009	10.70	6.80
SF10165-2R2NT	2.2	1.00	0.011	8.90	6.30
SF10165-3R3NT	3.3	1.00	0.013	7.80	5.80
SF10165-4R7NT	4.7	1.00	0.016	6.10	4.70
SF10165-6R8NT	6.8	1.00	0.019	4.60	4.30
SF10165-100MT	10	1.00	0.025	4.10	3.80
SF10165-150MT	15	1.00	0.035	3.10	3.10
SF10165-220MT	22	1.00	0.059	2.70	2.40

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF12555-6R0NT	6.0	1.00	0.020	3.60	4.90
SF12555-100MT	10	1.00	0.026	3.40	4.30
SF12555-150MT	15	1.00	0.032	2.80	3.90
SF12555-220MT	22	1.00	0.041	2.30	3.40
SF12555-330MT	33	1.00	0.050	1.90	3.10
SF12555-470MT	47	1.00	0.075	1.60	2.50
SF12555-680MT	68	1.00	0.100	1.30	2.20
SF12555-101MT	100	1.00	0.141	1.10	1.80
SF12555-151MT	150	1.00	0.228	0.88	1.40
SF12555-221MT	220	1.00	0.324	0.72	1.20
SF12555-331MT	330	1.00	0.492	0.59	1.00
SF12555-471MT	470	1.00	0.624	0.49	0.88
SF12555-681MT	680	1.00	0.912	0.43	0.73
SF12555-102MT	1000	1.00	1.344	0.34	0.60
SF12555-152MT	1500	1.00	2.076	0.29	0.48

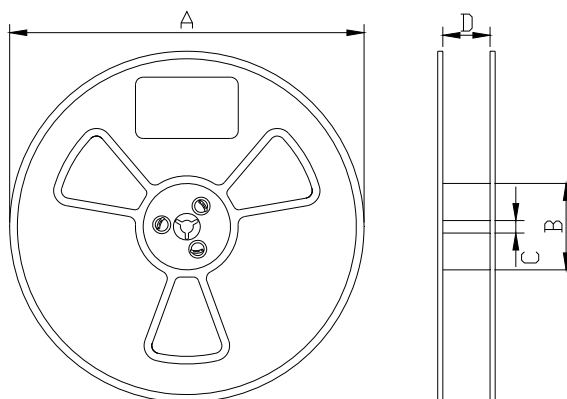
Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF12565-2R0NT	2.0	1.00	0.015	10.00	6.20
SF12565-4R2NT	4.2	1.00	0.018	7.30	5.50
SF12565-7R0NT	7.0	1.00	0.022	5.70	5.00
SF12565-100MT	10	1.00	0.025	5.00	4.80
SF12565-150MT	15	1.00	0.029	4.20	4.40
SF12565-220MT	22	1.00	0.038	3.50	3.80
SF12565-330MT	33	1.00	0.049	2.80	3.40
SF12565-470MT	47	1.00	0.070	2.40	2.80
SF12565-680MT	68	1.00	0.095	2.00	2.40
SF12565-101MT	100	1.00	0.148	1.60	1.90
SF12565-151MT	150	1.00	0.328	1.00	1.20

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat(A)	Irms(A)
SF12575-1R2NT	1.2	1.00	0.009	13.00	8.20
SF12575-2R7NT	2.7	1.00	0.012	10.00	7.00
SF12575-3R9NT	3.9	1.00	0.013	9.00	6.70
SF12575-5R6NT	5.6	1.00	0.014	7.80	6.30
SF12575-6R8NT	6.8	1.00	0.016	7.20	5.90
SF12575-100MT	10	1.00	0.019	5.50	5.40
SF12575-150MT	15	1.00	0.023	4.70	5.00
SF12575-220MT	22	1.00	0.032	4.00	4.00
SF12575-330MT	33	1.00	0.048	3.20	3.40
SF12575-470MT	47	1.00	0.064	2.70	3.00
SF12575-680MT	68	1.00	0.094	2.00	2.40
SF12575-101MT	100	1.00	0.150	1.90	1.90
SF12575-151MT	150	1.00	0.210	1.50	1.60
SF12575-221MT	220	1.00	0.310	1.30	1.30

SF Series Packaging



SIZE	A0	B0	E	F	f	P	P1	P2	W	T	K0
SF6025	6.40	6.40	5.50	1.75	1.50	12.0	4.00	2.00	16.0	0.35	3.00
SF6028	6.40	6.40	5.50	1.75	1.50	12.0	4.00	2.00	16.0	0.35	3.30
SF6045	6.40	6.40	5.50	1.75	1.50	12.0	4.00	2.00	16.0	0.35	5.10
SF7032	7.40	7.40	5.50	1.75	1.50	12.0	4.00	2.00	16.0	0.35	3.30
SF7045	7.40	7.40	5.50	1.75	1.50	12.0	4.00	2.00	16.0	0.35	5.10
SF7055	7.40	7.40	5.50	1.75	1.50	12.0	4.00	2.00	16.0	0.35	6.10
SF10145	10.40	10.40	11.50	1.75	1.50	16.0	4.00	2.00	24.0	0.35	5.10
SF10165	10.40	10.40	11.50	1.75	1.50	16.0	4.00	2.00	24.0	0.35	6.10
SF12555	12.80	12.80	11.50	1.75	1.50	16.0	4.00	2.00	24.0	0.35	6.10
SF12565	12.80	12.80	11.50	1.75	1.50	16.0	4.00	2.00	24.0	0.35	7.10
SF12575	12.80	12.80	11.50	1.75	1.50	16.0	4.00	2.00	24.0	0.35	8.10



SIZE	A	B	C	D	Reel/PCS
SF6025	330	100	13	12.5	1500
SF6028	330	100	13	12.5	1000
SF6045	330	100	13	12.5	1000
SF7032	330	100	13	12.5	1000
SF7045	330	100	13	12.5	1000
SF7055	330	100	13	12.5	1000
SF10145	330	100	13	16.5	750
SF10165	330	100	13	16.5	750
SF12555	330	100	13	16.5	500
SF12565	330	100	13	16.5	500
SF12575	330	100	13	16.5	500