

## FEATURES

- The SF series are characterized by low profile.
- Low DC resistance, and high current handling capacities.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.



## APPLICATIONS

- Ideally used in PC, HDD, LCD-TV, Plasma-TV, DVD-recorder, and other Audio-Visual equipment, etc.

## PRODUCT IDENTIFICATION

SF 7045 – 221 K – T  
a b c d e

a : Series name

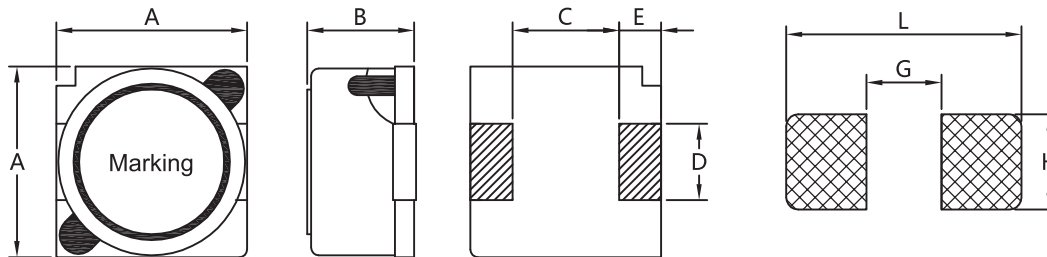
b : Product dimensions

c : Inductance Value (1R0:1.0uH; 100: 10uH; 101:100uH)

d : Inductance Tolerance (K:10% ; M:20% ; N:30%)

e : Packaging style (T: Taping; B: bulk)

## SHAPES AND DIMENSIONS Unit: mm



Series	Dimensions(mm)							
	A	B	C	D	E	L	G	H
SF6028	6.0±0.3	3.1Max.	4.0±0.2	2.0±0.2	0.9	7.0	4.0	2.2
SF6045	6.0±0.3	4.8Max.	4.0±0.2	2.0±0.2	0.9	7.0	4.0	2.2
SF7032	7.0±0.3	3.5Max.	4.9±0.2	2.0±0.2	0.9	7.9	4.9	2.2
SF7045	7.0±0.3	4.8Max.	4.9±0.2	2.0±0.2	0.9	7.9	4.9	2.2
SF7055	7.0±0.3	5.8Max.	4.9±0.2	2.0±0.2	0.9	7.9	4.9	2.2
SF10145	10.1±0.3	4.8Max.	6.0±0.2	3.0±0.2	2.0	10.6	5.6	3.2
SF10165	10.1±0.3	7.0Max.	6.0±0.2	3.0±0.2	2.0	10.6	5.6	3.2
SF12555	12.5±0.3	5.8Max.	8.0±0.2	3.0±0.2	2.0	13.6	8.6	3.2
SF12565	12.5±0.3	6.9Max.	8.0±0.2	3.0±0.2	2.0	13.6	8.6	3.2
SF12575	12.5±0.3	7.9Max.	8.0±0.2	3.0±0.2	2.0	13.6	8.6	3.2

## ELECTRICAL CHARACTERISTICS

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

Note:

**Isat:** DC current at which the inductance drops 30% from its value without current.

**Irms:** DC current that causes the temperature rise ( $\Delta T = 40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient

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

Note:

**Rated current:** The DC current at which the inductance decreases to 70 % of its initial value or when  $\Delta t = 40^{\circ}\text{C}$ , whichever is lower( $T_a = 20^{\circ}\text{C}$ )

## ELECTRICAL CHARACTERISTICS

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

Note:

**Rated current:** The DC current at which the inductance decreases to 70 % of its initial value or when  $\Delta t = 40^{\circ}\text{C}$ , whichever is lower ( $T_a = 20^{\circ}\text{C}$ )

## ELECTRICAL CHARACTERISTICS

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

Note:

**Isat:** DC current at which the inductance drops 35% from its value without current.

**Irms:** DC current that causes the temperature rise ( $\Delta T = 40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient

## ELECTRICAL CHARACTERISTICS

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	100	0.020	4.90	3.70
SF10145-5R6NT	5.6	100	0.027	3.80	3.20
SF10145-100MT	10	100	0.044	3.00	2.50
SF10145-150MT	15	100	0.057	2.40	2.20
SF10145-220MT	22	100	0.071	2.10	1.90
SF10145-330MT	33	100	0.099	1.60	1.70
SF10145-470MT	47	100	0.120	1.40	1.50
SF10145-680MT	68	100	0.168	1.20	1.30
SF10145-101MT	100	100	0.240	1.00	1.10
SF10145-151MT	150	100	0.420	0.79	0.81
SF10145-221MT	220	100	0.564	0.65	0.70
SF10145-331MT	330	100	0.816	0.54	0.58
SF10145-471MT	470	100	1.236	0.47	0.47
SF10145-681MT	680	100	1.920	0.38	0.38
SF10145-102MT	1000	100	3.360	0.32	0.29
SF10145-152MT	1500	100	4.080	0.22	0.26

Note:

**Isat:** DC current at which the inductance drops 35% from its value without current.

**Irms:** DC current that causes the temperature rise ( $\Delta T = 40^{\circ}C$ ) from  $20^{\circ}C$  ambient

## ELECTRICAL CHARACTERISTICS

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat.(A)	Irms.(A)
SF10165-1R5NT	1.5	1.00	0.009	10.7	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

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat.(A)	Irms.(A)
SF12565-2R0NT	2.0	1.00	0.015	10.0	6.20
SF12565-4R2NT	4.2	1.00	0.018	7.30	5.50
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

Note:

**Isat:** DC current at which the inductance drops 35% from its value without current.

**Irms:** DC current that causes the temperature rise ( $\Delta T = 40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient

## ELECTRICAL CHARACTERISTICS

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat.(A)	Irms.(A)
SF12575-1R2NT	1.2	1.00	0.009	13.0	8.20
SF12575-2R7NT	2.7	1.00	0.012	10.0	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

Note:

**Isat:** DC current at which the inductance drops 35% from its value without current.

**Irms:** DC current that causes the temperature rise ( $\Delta T = 40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient