Shielded SMD Power Inductor-SFM Series

Applications

- OA equipment.
- Notebook PCs
- Portable communication equipment
- DC/DC converters, etc

Features

- Low Profile.
- Magnetically shielded and low DC resistance.
- Suitable for large currents.
- Ideal for a variety of DC-DC converter inductor applications.

Inductance and rated current ranges

- SFM0518 1.2～47μH 1.80～0.33A
- SFM0520 1.2～100μH 2.15～0.23A
- SFM0620 1.0～47μH 3.48～0.50A
- SFM0630 1.0～150μH 3.59～0.31A
- SFM1048 1.1～120μH 6.00～0.80A
- SFM1268 1.7～680μH 7.70～0.55A
- Test equipment:

  L: HP4284A Precision LCR meter.

  DCR: Milli-ohm meter.

  Electrical Specification at 25℃

Product Identification

SFM 0518 M T 100

(1) (2) (3) (4) (5)

(1)Type: SMD Power Inductors

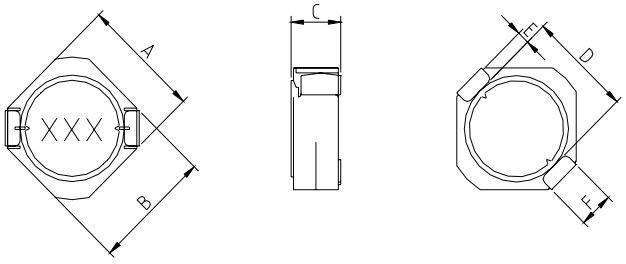
(2)Dimensions (mm): 05 is 5.2mm square and 18 is about 1.8mm height.

(3)Tolerance:M=20%, N=30%

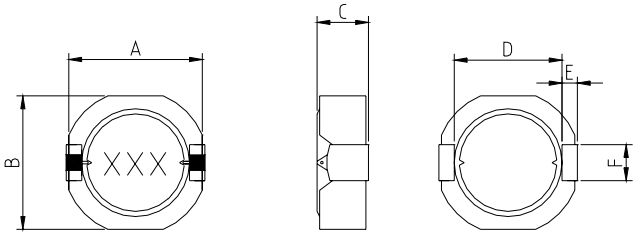
(4) Packaging style: T (Tape and Reel)

(5) Inductance:1R1=1.1μH, 470=47μH, 101 =100μH

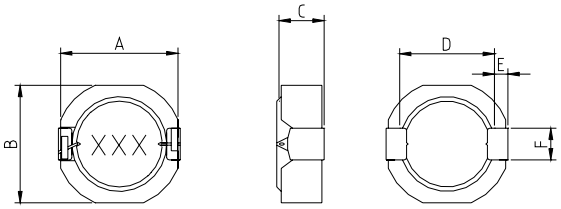
Dimension



SFM 0518 / 0520



SFM 0620 / 0630



SFM 1048 / 1268

Codes	A(Max)	B(Max)	C(Max)	D(Ref.)	E(Ref.)	F(Ref.)
SFM0518	5.2	5.2	1.8	4.2	0.6	1.4
SFM0520	5.2	5.2	2.0	4.2	0.6	1.4
SFM0620	6.3	6.2	2.0	4.8	0.6	2.0
SFM0630	6.3	6.2	3.0	4.8	0.6	2.0
SFM1048	10.4	10.4	4.8	6.0	2.0	3.0
SFM1268	12.8	12.8	6.8	8.5	2.0	3.0

Electrical Characteristics

Part No.	L (μH)	Tol. (%)	DC Resistance (Ω)Max	Rated DC Current (A) Max
SFM0518MT1R2	1.2	20	0.054	1.8
SFM0518MT1R8	1.8	20	0.065	1.6
SFM0518MT2R3	2.3	20	0.076	1.5
SFM0518MT3R6	3.6	20	0.097	1.2
SFM0518MT4R3	4.3	20	0.110	1.1
SFM0518MT5R1	5.1	20	0.130	1.0
SFM0518MT6R8	6.8	20	0.150	0.94
SFM0518MT100	10	20	0.220	0.80
SFM0518MT150	15	20	0.325	0.64
SFM0518MT180	18	20	0.380	0.56
SFM0518MT220	22	20	0.540	0.49
SFM0518MT330	33	20	0.770	0.41
SFM0518MT470	47	20	1.120	0.33

Note: 1. Test Frequency 100 kHz 0.1Vrms.

2. Rated DC Current: The current when the inductance decrease to 70% of its initial value or the current when the temperature of coil increases to △40℃. The smaller one is defined as Rated DC Current. (Ta=25℃)

3.Operating temperature range -20～85℃.

Part No.	L (μH)	Tol. (%)	DC Resistance (Ω)Max	Rated DC Current (A) Max	
				Isat	Irms
SFM0520MT1R2	1.2	20	0.037	2.15	2.29
SFM0520MT2R2	2.2	20	0.049	1.63	1.64
SFM0520MT3R5	3.5	20	0.061	1.34	1.45
SFM0520MT4R7	4.7	20	0.072	1.14	1.22
SFM0520MT6R8	6.8	20	0.084	0.95	1.10
SFM0520MT100	10	20	0.125	0.76	0.87
SFM0520MT150	15	20	0.175	0.63	0.72
SFM0520MT220	22	20	0.230	0.56	0.66
SFM0520MT330	33	20	0.375	0.44	0.48
SFM0520MT470	47	20	0.605	0.36	0.35
SFM0520MT680	68	20	0.780	0.30	0.33
SFM0520MT101	100	20	1.250	0.23	0.24

Note: 1. Test Frequency 100 kHz 0.1Vrms.

2. Rated DC Current: Isat : The current when the inductance decrease to 70% of its initial value.
Irms: The current when the temperature of coil increases to △40℃. (Ta=25℃)

3.Operating temperature range -20～85℃.

Part No.	L (μH)	Tol. (%)	DC Resistance (Ω)Max	Rated DC Current (A) Max	
				Isat	Irms
SFM0620MT1R0	1.0	20	0.014	3.50	3.48
SFM0620MT1R5	1.5	20	0.017	2.94	2.99
SFM0620MT2R0	2.0	20	0.024	2.47	2.33
SFM0620MT3R3	3.3	20	0.039	1.99	1.97
SFM0620MT4R7	4.7	20	0.055	1.59	1.54
SFM0620MT6R2	6.2	20	0.062	1.49	1.45
SFM0620MT8R2	8.2	20	0.085	1.25	1.23
SFM0620MT100	10	20	0.098	1.22	1.09
SFM0620MT120	12	20	0.128	0.99	1.10
SFM0620MT150	15	20	0.149	0.94	0.82
SFM0620MT180	18	20	0.172	0.83	0.90
SFM0620MT220	22	20	0.211	0.80	0.74
SFM0620MT270	27	20	0.275	0.65	0.65
SFM0620MT330	33	20	0.306	0.63	0.61
SFM0620MT390	39	20	0.394	0.55	0.56
SFM0620MT470	47	20	0.452	0.50	0.52

Note: 1. Test Frequency 100 kHz 0.1Vrms.

2. Rated DC Current: Isat : The current when the inductance decrease to 70% of its initial value.
Irms: The current when the temperature of coil increases to △40℃. (Ta=25℃)

3.Operating temperature range -20～85℃.

Electrical Characteristics

Part No.	L (μH)	Tol. (%)	DC Resistance (Ω)Max	Rated DC Current (A) Max	
				Isat	Irms
SFM0630MT1R0	1.0	20	0.011	3.59	4.03
SFM0630MT1R5	1.5	20	0.013	2.93	3.63
SFM0630MT2R2	2.2	20	0.016	2.42	3.30
SFM0630MT3R6	3.6	20	0.021	1.89	2.82
SFM0630MT4R7	4.7	20	0.027	1.66	2.45
SFM0630MT6R2	6.2	20	0.032	1.45	2.20
SFM0630MT100	10	20	0.049	1.14	1.77
SFM0630MT120	12	20	0.052	1.04	1.70
SFM0630MT150	15	20	0.062	0.93	1.55
SFM0630MT180	18	20	0.074	0.85	1.41
SFM0630MT220	22	20	0.095	0.77	1.23
SFM0630MT270	27	20	0.120	0.70	1.08
SFM0630MT330	33	20	0.140	0.63	0.99
SFM0630MT390	39	20	0.150	0.58	0.95
SFM0630MT470	47	20	0.185	0.53	0.84
SFM0630MT560	56	20	0.220	0.48	0.76
SFM0630MT680	68	20	0.270	0.44	0.69
SFM0630MT820	82	20	0.330	0.40	0.61
SFM0630MT101	100	20	0.415	0.36	0.54
SFM0630MT151	150	20	0.615	0.31	0.42

Note: 1. Test Frequency 100 kHz 0.1Vrms.

2. Rated DC Current: Isat : The current when the inductance decrease to 70% of its initial value.
Irms: The current when the temperature of coil increases to △40℃. (Ta=25℃)

3.Operating temperature range -20～85℃.

Part No.	L (μH)	Tol. (%)	DC Resistance (Ω)Max	Rated DC Current (A) Max	
				Isat	Irms
SFM1048NT1R1	1.1	30	0.011	11.7	6.0
SFM1048NT1R8	1.8	30	0.014	8.7	5.4
SFM1048NT2R7	2.7	30	0.016	7.3	4.9
SFM1048NT3R9	3.9	30	0.018	5.8	4.6
SFM1048NT5R1	5.1	30	0.026	4.9	3.8
SFM1048NT6R8	6.8	30	0.035	4.5	3.1
SFM1048NT8R2	8.2	30	0.040	4.1	2.9
SFM1048MT100	10	20	0.044	3.6	2.7
SFM1048MT120	12	20	0.051	3.3	2.5
SFM1048MT150	15	20	0.062	3.1	2.3
SFM1048MT180	18	20	0.079	2.7	2.0
SFM1048MT220	22	20	0.087	2.4	1.9
SFM1048MT270	27	20	0.100	2.2	1.8
SFM1048MT330	33	20	0.125	2.0	1.6
SFM1048MT390	39	20	0.150	1.8	1.4
SFM1048MT470	47	20	0.175	1.7	1.3
SFM1048MT560	56	20	0.195	1.5	1.2
SFM1048MT680	68	20	0.240	1.3	1.1
SFM1048MT820	82	20	0.295	1.2	1.0
SFM1048MT101	100	20	0.380	1.1	0.9
SFM1048MT121	120	20	0.460	0.97	0.8

Note: 1. Test Frequency 100 kHz 0.1Vrms.

2. Rated DC Current: Isat : The current when the inductance decrease to 70% of its initial value.
Irms: The current when the temperature of coil increases to △40℃. (Ta=25℃)

3.Operating temperature range -20～85℃.

Electrical Characteristics

Part No.	L (μH)	Tol. (%)	DC Resistance (Ω)Max	Rated DC Current (A) Max	
				Isat	Irms
SFM1268NT1R7	1.7	30	0.010	11.8	7.7
SFM1268NT2R7	2.7	30	0.011	9.0	7.0
SFM1268NT3R9	3.9	30	0.014	7.9	6.0
SFM1268NT5R6	5.6	30	0.016	6.8	5.6
SFM1268NT7R5	7.5	30	0.017	5.7	5.1
SFM1268MT100	10	20	0.023	5.5	4.4
SFM1268MT120	12	20	0.027	5.0	4.0
SFM1268MT150	15	20	0.032	4.5	3.6
SFM1268MT180	18	20	0.040	4.1	3.2
SFM1268MT220	22	20	0.046	3.6	2.9
SFM1268MT270	27	20	0.050	3.2	2.8
SFM1268MT330	33	20	0.064	3.0	2.4
SFM1268MT390	39	20	0.074	2.7	2.2
SFM1268MT470	47	20	0.082	2.4	2.1
SFM1268MT560	56	20	0.105	2.0	1.9
SFM1268MT680	68	20	0.120	1.7	1.7
SFM1268MT820	82	20	0.145	1.6	1.6
SFM1268MT101	100	20	0.170	1.5	1.4
SFM1268MT121	120	20	0.185	1.3	1.3
SFM1268MT151	150	20	0.235	1.2	1.2
SFM1268MT181	180	20	0.290	1.1	1.1
SFM1268MT221	220	20	0.350	1.0	1.0
SFM1268MT271	270	20	0.415	0.93	0.92
SFM1268MT331	330	20	0.495	0.83	0.83
SFM1268MT391	390	20	0.610	0.76	0.77
SFM1268MT471	470	20	0.705	0.67	0.70
SFM1268MT561	560	20	0.900	0.62	0.64
SFM1268MT681	680	20	1.120	0.55	0.58

Note: 1. Test Frequency 100 kHz 0.1Vrms.

2. Rated DC Current: Isat : The current when the inductance decrease to 70% of its initial value.
Irms: The current when the temperature of coil increases to △40℃. (Ta=25℃)

3.Operating temperature range -20～85℃.

RoHS