

SM Series Unshielded Power Inductors



FEATURES

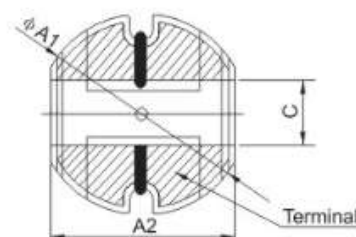
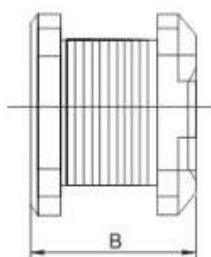
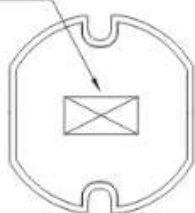
- ROHS, Halogen free and REACH Compliance
- Unshielded power inductor
- Various package size and wide inductance range.

APPLICATIONS

- Graphic cards, cordless phone.
- GPS
- Personal computers

SHAPE AND DIMENSIONS

标志: (Marking)



Part Number	Dimensions (mm)			
	ΦA1	A2	B	C(REF)
SM3511	3.5±0.2	3.0±0.2	1.1±0.3	0.8

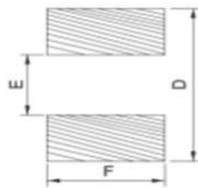


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Part Number	Dimensions (mm)			
	$\Phi A1$	A2	B	C(REF)
SM3516	3.5 ± 0.2	3.0 ± 0.2	1.6 ± 0.3	0.8
SM3521	3.5 ± 0.2	3.0 ± 0.2	2.1 ± 0.3	0.8
SM4520	4.5 ± 0.2	4.0 ± 0.2	2.0 ± 0.3	1.2
SM4532	4.5 ± 0.2	4.0 ± 0.2	3.2 ± 0.3	1.2
SM5830	5.8 ± 0.2	5.2 ± 0.2	4.5 ± 0.3	1.5
SM5845	5.8 ± 0.2	5.2 ± 0.2	4.5 ± 0.3	1.5
SM7835	7.8 ± 0.2	7.0 ± 0.2	3.5 ± 0.3	2.1
SM7850	7.8 ± 0.2	7.0 ± 0.2	5.0 ± 0.3	2.1
SM1040	10.0 ± 0.2	9.0 ± 0.2	4.0 ± 0.3	2.5
SM1054	10.0 ± 0.2	9.0 ± 0.2	5.4 ± 0.3	2.5
SM1070	10.0 ± 0.2	9.0 ± 0.2	7.0 ± 0.3	2.5
SM1082	10.0 ± 0.2	9.0 ± 0.2	8.2 ± 0.3	2.5

RECOMMENDED PC BOARD PATTERN



Part Number	Dimensions (mm)		
	D	E	F
SM3511	3.9 ± 0.2	1.0 ± 0.2	3.4 ± 0.2
SM3516	3.9 ± 0.2	1.0 ± 0.2	3.4 ± 0.2
SM3521	3.9 ± 0.2	1.0 ± 0.2	3.4 ± 0.2
SM4520	4.9 ± 0.2	1.0 ± 0.2	4.4 ± 0.2
SM4532	4.9 ± 0.2	1.0 ± 0.2	4.4 ± 0.2
SM5830	6.2 ± 0.2	1.2 ± 0.2	5.4 ± 0.2

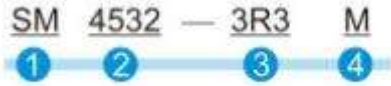
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Part Number	Dimensions (mm)		
	D	E	F
SM5845	6.2±0.2	1.2±0.2	5.4±0.2
SM7835	8.2±0.2	1.8±0.2	7.2±0.2
SM7850	8.2±0.2	1.8±0.2	7.2±0.2
SM1040	10.4±0.2	2.3±0.2	9.2±0.2
SM1054	10.4±0.2	2.3±0.2	9.2±0.2
SM1070	10.4±0.2	2.3±0.2	9.2±0.2
SM1082	10.4±0.2	2.3±0.2	9.2±0.2

PRODUCT IDENTIFICATION



- ① Series name
- ② Dimensions D×T
- ③ Inductance: R47-0.47uH 4R7-4.7uH 470-47uH
- ④ Tolerance: K: ±10% M: ±20% N: ±30%

SPECIFICATIONS

● SM3511 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM3511-1R0□	1.0	K、M	100/0.25	0.08	1400
SM3511-1R5□	1.5			0.11	1200
SM3511-2R2□	2.2			0.14	1050
SM3511-3R3□	3.3			0.20	1000
SM3511-4R7□	4.7			0.25	850
SM3511-5R6□	5.6			0.32	760
SM3511-6R8□	6.8			0.334	720
SM3511-8R2□	8.2			0.48	640
SM3511-100□	10			0.56	580
SM3511-150□	15			0.85	470
SM3511-220□	22			0.98	240
SM3511-330□	33			1.66	320
SM3511-470□	47			2.0	240
SM3511-680□	68			3.5	220

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;



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1. Operating temperature range -40 -125 °C
2. Isat for idncutance drop 30% from its value without current

● SM3516 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM3516-1R0□	1.0	K、M	100/0.25	0.055	1800
SM3516-1R5□	1.5			0.080	1450
SM3516-2R2□	2.2			0.105	1150
SM3516-3R3□	3.3			0.150	950
SM3516-4R7□	4.7			0.22	750
SM3516-5R6□	5.6			0.27	700
SM3516-6R8□	6.8			0.30	650
SM3516-8R2□	8.2			0.32	600
SM3516-100□	10			0.35	550
SM3516-150□	15			0.45	450
SM3516-180□	18			0.57	400
SM3516-220□	22			0.73	350
SM3516-330□	33			1.20	300
SM3516-470□	47			2.0	250
SM3516-680□	68			2.4	200

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

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● SM3521 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM3521-1R0□	1.0	K、M	100/0.25	0.04	2250
SM3521-1R4□	1.4			0.06	2000
SM3521-1R8□	1.8			0.065	1800
SM3521-2R2□	2.2			0.08	1700
SM3521-2R7□	2.7			0.09	1500
SM3521-3R3□	3.3			0.10	1450
SM3521-3R9□	3.9			0.13	1200
SM3521-4R7□	4.7			0.15	1150
SM3521-5R6□	5.6			0.19	1050



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Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM3521-6R8□	6.8	M、N	100/0.25	0.24	950
SM3521-8R2□	8.2			0.28	900
SM3521-100□	10			0.33	800
SM3521-120□	12			0.36	700
SM3521-150□	15			0.47	650
SM3521-180□	18			0.53	600
SM3521-220□	22			0.67	550
SM3521-270□	27			0.91	500
SM3521-330□	33			1.25	450
SM3521-390□	39			1.30	400
SM3521-470□	47			1.80	350
SM3521-560□	56			2.00	320
SM3521-680□	68			2.30	300
SM3521-820□	82			3.15	280
SM3521-101□	100			3.50	260
SM3521-271□	270			10.0	160
SM3521-331□	330			12.5	140
SM3521-471□	470			21.5	120

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

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● SM4520 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM4520-1R0□	1.0	K、M	100/0.25	0.035	2700
SM4520-1R5□	1.5			0.04	2500
SM4520-2R2□	2.2			0.055	2000
SM4520-3R3□	3.3			0.07	1750
SM4520-4R7□	4.7			0.095	1500
SM4520-5R6□	5.6			0.11	1400
SM4520-6R8□	6.8			0.14	1200
SM4520-8R2□	8.2			0.16	1100



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Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM4520-100□	10	K、M	100/0.25	0.20	1000
SM4520-150□	15			0.29	820
SM4520-180□	18			0.34	800
SM4520-220□	22			0.40	680
SM4520-330□	33			0.60	550
SM4520-470□	47			1.0	460
SM4520-680□	68			1.3	390
SM4520-820□	82			1.5	350
SM4520-121□	120			1.9	320

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

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2. Isat for idncutance drop 30% from its value without current

● SM4532 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM4532-1R0□	1.0	K、M	100/0.25	0.033	3800
SM4532-1R4□	1.4			0.038	3300
SM4532-1R8□	1.8			0.042	2910
SM4532-2R2□	2.2			0.047	2600
SM4532-2R7□	2.7			0.052	2430
SM4532-3R3□	3.3			0.058	2150
SM4532-3R9□	3.9			0.076	1980
SM4532-4R7□	4.7			0.094	1700
SM4532-5R6□	5.6			0.101	1600
SM4532-6R8□	6.8			0.120	950
SM4532-8R2□	8.2			0.132	1260
SM4532-100□	10			0.182	1150
SM4532-120□	12			0.210	1050
SM4532-150□	15			0.235	850
SM4532-180□	18			0.338	840
SM4532-220□	22			0.378	760
SM4532-270□	27			0.522	710
SM4532-330□	33			0.540	640



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Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM4532-390□	39	M、N	100/0.25	0.750	590
SM4532-470□	47			0.844	540
SM4532-680□	68			0.930	370
SM4532-101□	100			1.350	400
SM4532-221□	220			2.600	300
SM4532-331□	330			3.500	220
SM4532-471□	470			4.200	180
SM4532-561□	560			6.000	120
SM4532-681□	680			7.000	100
SM4532-102□	1000			12.5	50

Note: When ordering, please specify tolerance code. Tolerance: K: $\pm 10\%$ 、M: $\pm 20\%$;

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● SM5845 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM5845-1R0□	1.0	K、M	100/0.25	0.018	5000
SM5845-1R8□	1.8			0.025	4000
SM5845-2R7□	2.7			0.028	3000
SM5845-3R3□	3.3			0.030	2500
SM5845-3R9□	3.9			0.032	2000
SM5845-4R7□	4.7			0.035	1800
SM5845-5R6□	5.6			0.040	1650
SM5845-6R8□	6.8			0.045	1600
SM5845-8R2□	8.2			0.055	1500
SM5845-100□	10			0.10	1440
SM5845-120□	12			0.12	1400
SM5845-150□	15			0.14	1300
SM5845-180□	18			0.15	1230
SM5845-220□	22			0.18	1110
SM5845-270□	27			0.20	970
SM5845-330□	33			0.23	880
SM5845-390□	39			0.32	800



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Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM5845-470□	47	K、M	100/0.25	0.37	720
SM5845-560□	56			0.42	680
SM5845-680□	68			0.46	610
SM5845-820□	82			0.60	580
SM5845-101□	100			0.70	520
SM5845-121□	120			0.93	480
SM5845-151□	150			1.10	400
SM5845-181□	180			1.38	380
SM5845-221□	220			1.57	350

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

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2. Isat for idncutance drop 30% from its value without current

● SM7835 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM7835-1R0□	1.0	K、M	100/0.25	0.015	6500
SM7835-1R8□	1.8			0.020	4500
SM7835-2R7□	2.7			0.025	3800
SM7835-3R3□	3.3			0.030	3500
SM7835-3R9□	3.9			0.032	3000
SM7835-4R7□	4.7			0.040	2800
SM7835-5R6□	5.6			0.055	2600
SM7835-6R8□	6.8			0.065	2400
SM7835-8R2□	8.2			0.075	2000
SM7835-100□	10			0.080	1900
SM7835-120□	12			0.090	1700
SM7835-150□	15			0.095	1500
SM7835-180□	18			0.100	1400
SM7835-220□	22			0.13	1200
SM7835-270□	27			0.15	1100
SM7835-330□	33			0.18	1000
SM7835-390□	39			0.22	900
SM7835-470□	47			0.25	850
SM7835-560□	56			0.30	800



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Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM7835-680□	68	K、M	100/0.25	0.33	700
SM7835-820□	82			0.41	650
SM7835-101□	100			0.48	600
SM7835-121□	120			0.60	550
SM7835-151□	150			0.75	500
SM7835-181□	180			1.02	450
SM7835-221□	220			1.2	400
SM7835-271□	270			1.4	320
SM7835-331□	330			1.7	280
SM7835-471□	470			2.5	250
SM7835-561□	560			3.0	240
SM7835-681□	680			3.7	220
SM7835-821□	820			4.3	200

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

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● SM7850 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM7850-1R0□	1.0	K、M	100/0.25	0.030	6800
SM7850-1R8□	1.8			0.035	5260
SM7850-2R7□	2.7			0.040	4020
SM7850-3R3□	3.3			0.045	3600
SM7850-3R9□	3.9			0.050	3260
SM7850-4R7□	4.7			0.055	2970
SM7850-5R6□	5.6			0.060	2740
SM7850-6R8□	6.8			0.065	2530
SM7850-8R2□	8.2			0.070	2360
SM7850-100□	10			0.075	2070
SM7850-120□	12			0.080	1850
SM7850-150□	15			0.090	1670
SM7850-180□	18			0.100	1520
SM7850-220□	22			0.110	1400



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Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM7850-270□	27	K、M	100/0.25	0.120	1240
SM7850-330□	33			0.130	1160
SM7850-390□	39			0.160	1050
SM7850-470□	47			0.196	960
SM7850-560□	56			0.240	870
SM7850-680□	68			0.280	790
SM7850-820□	82			0.370	720
SM7850-101□	100			0.430	650
SM7850-121□	120			0.470	590
SM7850-151□	150			0.640	530
SM7850-181□	180			0.710	490
SM7850-221□	220			0.960	440
SM7850-271□	270			1.15	400
SM7850-331□	330			1.30	360
SM7850-391□	390			1.80	330
SM7850-471□	470			2.00	300
SM7850-561□	560			2.20	280
SM7850-681□	680			2.75	250
SM7850-821□	820			3.10	230

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

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● SM1040 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM1040-1R0□	1.0	K、M	100/0.25	0.015	7200
SM1040-1R8□	1.8			0.020	4900
SM1040-2R7□	2.7			0.025	4200
SM1040-3R3□	3.3			0.030	3500
SM1040-3R9□	3.9			0.032	3300
SM1040-4R7□	4.7			0.035	3200
SM1040-5R6□	5.6			0.040	2800
SM1040-6R8□	6.8			0.046	2600
SM1040-8R2□	8.2			0.052	2350



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Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM1040-100□	10	M、N	100/0.25	0.071	2150
SM1040-120□	12			0.076	2000
SM1040-150□	15			0.090	1700
SM1040-180□	18			0.089	1650
SM1040-220□	22			0.10	1450
SM1040-270□	27			0.12	1350
SM1040-330□	33			0.13	1200
SM1040-390□	39			0.16	1100
SM1040-470□	47			0.19	1000
SM1040-560□	56			0.22	900
SM1040-680□	68			0.25	800
SM1040-820□	82			0.30	750
SM1040-101□	100			0.38	650
SM1040-121□	120			0.44	600
SM1040-151□	150			0.52	550
SM1040-181□	180			0.60	500
SM1040-221□	220			0.75	450
SM1040-271□	270			0.88	400
SM1040-331□	330			1.15	380
SM1040-391□	390			1.38	340
SM1040-471□	470			1.64	320
SM1040-561□	560			2.06	290
SM1040-681□	680			2.55	260
SM1040-821□	820			3.10	240
SM1040-102□	1000			3.55	220

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

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● SM1054 TYPE

Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM1054-1R0□	1.0	K、M	100/0.25	0.010	7600
SM1054-1R8□	1.8			0.012	6220



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Part Number	Inductance (uH)	Tolerance	Test Frequency (KHz/V)	DCR Max(Ω)	Rated Current Max (mA)
SM1054-2R7□	2.7	K、M	100/0.25	0.020	4560
SM1054-3R3□	3.3			0.025	4560
SM1054-3R9□	3.9			0.028	4020
SM1054-4R7□	4.7			0.031	3600
SM1054-5R6□	5.6			0.035	3260
SM1054-6R8□	6.8			0.039	2970
SM1054-8R2□	8.2			0.042	2740
SM1054-100□	10			0.045	2530
SM1054-120□	12			0.065	2210
SM1054-150□	15			0.069	2070
SM1054-180□	18			0.080	1850
SM1054-220□	22			0.090	1670
SM1054-270□	27			0.098	1520
SM1054-330□	33			0.114	1340
SM1054-390□	39			0.123	1240
SM1054-470□	47			0.15	1160
SM1054-560□	56			0.16	1050
SM1054-680□	68			0.22	940
SM1054-820□	82			0.27	870
SM1054-101□	100			0.32	790
SM1054-121□	120			0.40	690
SM1054-151□	150			0.47	620
SM1054-221□	220			0.68	510
SM1054-271□	270			0.84	460
SM1054-331□	330			1.01	420
SM1054-391□	390			1.18	390
SM1054-471□	470			1.42	350
SM1054-561□	560			1.72	320
SM1054-681□	680			2.10	290
SM1054-821□	820			2.58	260
SM1054-102□	1000	3.43	240		

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

1. Operating temperature range -40 -125℃
2. Isat for idncutance drop 30% from its value without current



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● Packaging Specifications

Tape Dimensions

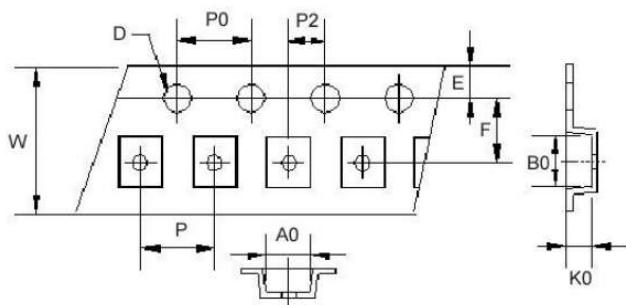


Figure 1

Tape Dimensions

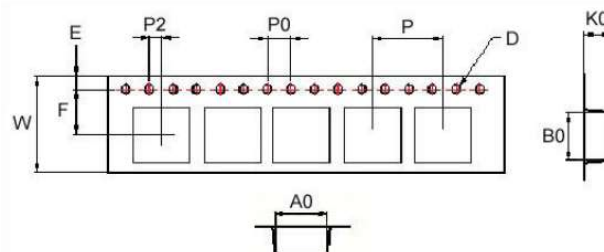


Figure 2

Reel Dimensions

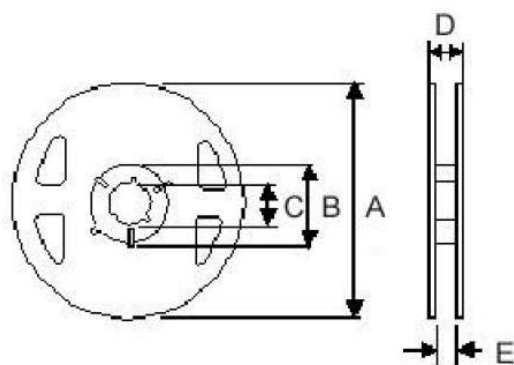


Figure 3

Reel Dimensions

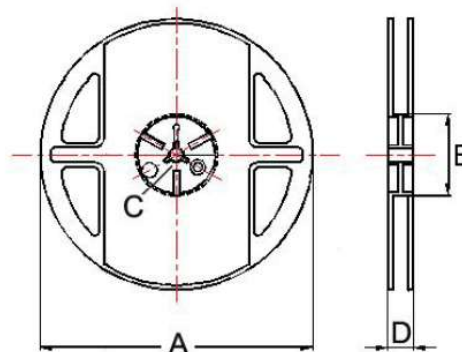


Figure 4