

◆ SMD Power Inductors SMC Series



FEATURES

- ◆ Low profile, high current power supplies.
- ◆ Low loss realized with low DCR.
- ◆ Ultra low buzz noise.

APPLICATIONS

- ◆ Ideally used in NB/Desktop/server/Graphic card, LCD TV/Projector, etc as DC-DC Converter.

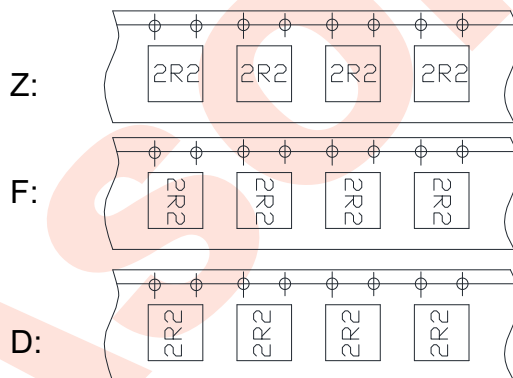
PRODUCT IDENTIFICATION

SMC 0603 L Z - 150 M

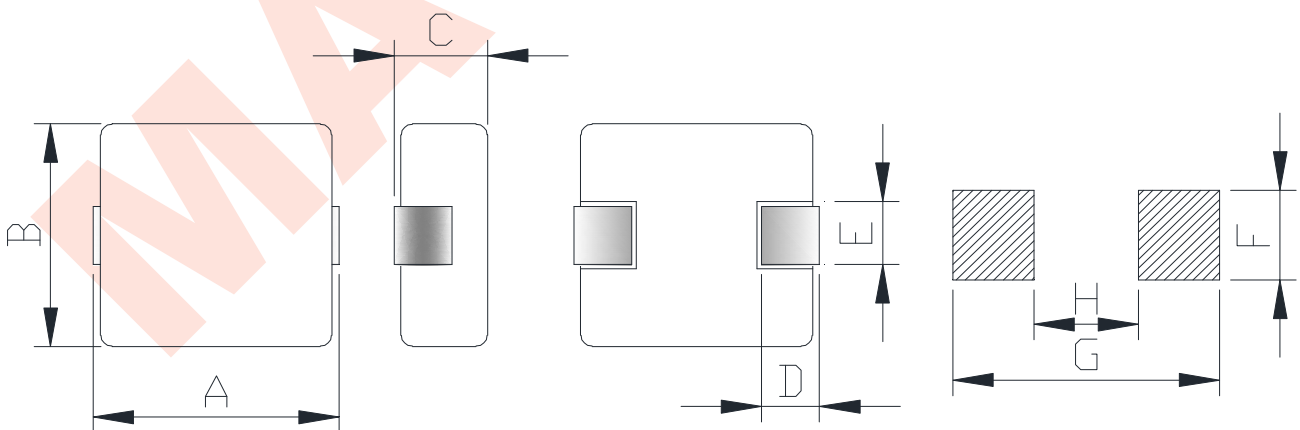
a b c d e f

- a: Series name
- b: Product dimensions (a x c)
- c: Sealing way (L: Cold seal Y: Heat seal)
- d: Lettering direction ▶
- e: Inductance Value
(1R0:1.0uH; 100: 10uH; 101:100uH)
- f: Inductance Tolerance (K:10% ; M:20% ; N:30%)

▶ Lettering direction



SHAPES AND DIMENSIONS



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SHAPES AND DIMENSIONS

Series	Dimensions(mm)							
	A _{Max}	B _{Max}	C _{Max}	D	E	F Ref.	G Ref.	H Ref.
SMC0415	4.9	4.5	1.5	1.0±0.3	1.5±0.5	2.3	4.9	2.1
SMC0420	4.9	4.5	2.0	1.0±0.3	1.5±0.5	2.3	4.9	2.1
SMC0520	5.9	5.2	2.0	1.0±0.3	2.0±0.5	2.5	7.0	3.0
SMC0530	5.9	5.2	3.0	1.0±0.3	2.0±0.5	2.5	7.0	3.0
SMC0550	5.9	5.2	5.0	1.0±0.3	2.0±0.5	2.5	7.0	3.0
SMC0618	7.8	7.0	1.8	1.5±0.5	3.0±0.3	3.4	7.3	3.7
SMC0620	7.8	7.0	2.0	1.5±0.5	3.0±0.3	3.4	7.3	3.7
SMC0630	7.8	7.0	3.0	1.5±0.5	3.0±0.3	3.4	7.3	3.7
SMC0640	7.8	7.0	4.0	1.5±0.5	3.0±0.3	3.4	7.3	3.7
SMC0650	7.8	7.0	5.0	1.5±0.5	3.0±0.3	3.4	7.3	3.7
SMC1030	11.8	10.8	3.0	2.0±0.5	3.0±0.5	4.1	13.6	5.4
SMC1040	11.8	10.8	4.0	2.0±0.5	3.0±0.5	4.1	13.6	5.4
SMC1050	11.8	10.8	5.0	2.0±0.5	3.0±0.5	4.1	13.6	5.4
SMC1335	14.5	13.5	3.5	2.5±0.5	3.5±0.5	4.5	14.5	8.0
SMC1340	14.5	13.5	4.0	2.5±0.5	3.5±0.5	4.5	14.5	8.0
SMC1350	14.5	13.5	5.0	2.5±0.5	3.5±0.5	4.5	14.5	8.0

ELECTRICAL CHARACTERISTICS

Part Number	L (uH)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0415LF-R22M	0.22	100	0.009	9.00	6.00
SMC0415LF-R47M	0.47	100	0.020	7.00	5.00
SMC0415LF-1R0M	1.0	100	0.045	5.00	3.50
SMC0415LF-1R5M	1.5	100	0.063	4.00	3.00
SMC0415LF-2R2M	2.2	100	0.100	3.00	2.50
SMC0415LF-4R7M	4.7	100	0.140	2.50	2.00

Note:

Saturation Current: DC current at which the inductance drops approximate 30% from its value without current;

Heat Rating Current: DC current that causes the temperature rise $\Delta T(=40^{\circ}\text{C})$ from 25°C ambient

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ELECTRICAL CHARACTERISTICS

Part Number	L (uH)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0420LF-R22M	0.22	100	0.008	12.0	9.00
SMC0420LF-R33M	0.33	100	0.010	11.0	8.00
SMC0420LF-R36M	0.36	100	0.012	10.0	7.00
SMC0420LF-R47M	0.47	100	0.014	9.50	6.00
SMC0420LF-R56M	0.56	100	0.018	8.00	5.00
SMC0420LF-R68M	0.68	100	0.021	7.50	4.80
SMC0420LF-1R0M	1.0	100	0.027	7.00	4.50
SMC0420LF-1R5M	1.5	100	0.045	6.00	4.00
SMC0420LF-2R2M	2.2	100	0.058	5.00	3.00
SMC0420LF-2R7M	2.7	100	0.063	4.00	2.60
SMC0420LF-3R3M	3.3	100	0.090	3.00	2.00
SMC0420LF-4R7M	4.7	100	0.150	2.80	1.80
SMC0420LF-6R8M	6.8	100	0.170	2.50	1.60
SMC0420LF-100M	10	100	0.200	1.80	1.50

Part Number	L (uH)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0520LF-R22M	0.22	100	0.006	16.0	10.5
SMC0520LF-R33M	0.33	100	0.009	15.0	10.0
SMC0520LF-R47M	0.47	100	0.010	12.0	9.00
SMC0520LF-R68M	0.68	100	0.016	11.0	7.00
SMC0520LF-1R0M	1.0	100	0.017	8.00	6.50
SMC0520LF-1R5M	1.5	100	0.028	7.00	5.00
SMC0520LF-2R2M	2.2	100	0.045	6.00	4.00
SMC0520LF-3R3M	3.3	100	0.080	5.00	3.50
SMC0520LF-4R7M	4.7	100	0.085	3.50	3.00
SMC0520LF-6R8M	6.8	100	0.100	3.00	2.00
SMC0520LF-100M	10	100	0.190	2.50	1.50

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Part Number	L (uH)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0530LF-R47M	0.47	100	0.011	13.0	10.0
SMC0530LF-R68M	0.68	100	0.012	12.0	9.00
SMC0530LF-1R0M	1.0	100	0.016	11.0	7.00
SMC0530LF-1R5M	1.5	100	0.022	10.0	5.00
SMC0530LF-2R2M	2.2	100	0.035	9.00	4.00
SMC0530LF-3R3M	3.3	100	0.038	7.00	3.50
SMC0530LF-4R7M	4.7	100	0.060	5.00	3.00
SMC0530LF-6R8M	6.8	100	0.090	3.50	2.50
SMC0530LF-100M	10	100	0.100	3.00	2.00
SMC0530LF-150M	15	100	0.165	2.00	1.50
SMC0530LF-220M	22	100	0.230	1.50	1.30

Part Number	L (uH)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0550LF-4R7M	4.7	100	0.050	6.00	5.00
SMC0550LF-6R8M	6.8	100	0.070	5.50	3.00
SMC0550LF-150M	15	100	0.138	3.50	2.50
SMC0550LF-220M	22	100	0.238	2.00	1.50

Part Number	L (uH)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0618LF-R47M	0.47	100	0.008	18.0	11.0
SMC0618LF-R68M	0.68	100	0.012	16.0	10.5
SMC0618LF-1R0M	1.0	100	0.022	11.0	6.00
SMC0618LF-1R5M	1.5	100	0.030	9.80	6.50
SMC0618LF-2R2M	2.2	100	0.035	9.00	5.00
SMC0618LF-3R3M	3.3	100	0.068	8.00	3.50
SMC0618LF-4R7M	4.7	100	0.075	5.00	3.00
SMC0618LF-100M	10	100	0.137	3.00	2.00

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Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0620LF-R68M	0.68	100	0.010	16.0	10.5
SMC0620LF-1R0M	1.0	100	0.020	14.0	7.00
SMC0620LF-1R5M	1.5	100	0.030	12.0	6.00
SMC0620LF-2R2M	2.2	100	0.035	10.0	5.00
SMC0620LF-3R3M	3.3	100	0.064	7.50	3.50
SMC0620LF-4R7M	4.7	100	0.070	6.00	3.30
SMC0620LF-6R8M	6.8	100	0.100	4.00	3.00
SMC0620LF-100M	10	100	0.154	3.50	2.80

Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0630LF-R22M	0.22	100	0.003	40.0	20.0
SMC0630LF-R33M	0.33	100	0.004	30.0	19.0
SMC0630LF-R47M	0.47	100	0.005	25.0	17.5
SMC0630LF-R56M	0.56	100	0.006		15.5
SMC0630LF-R68M	0.68	100	0.007	23.0	14.0
SMC0630LF-R82M	0.82	100	0.008	20.0	13.0
SMC0630LF-1R0M	1.0	100	0.009	16.0	11.0
SMC0630LF-1R5M	1.5	100	0.015	14.0	9.00
SMC0630LF-2R2M	2.2	100	0.020	12.0	8.00
SMC0630LF-3R3M	3.3	100	0.030	10.0	6.00
SMC0630LF-4R7M	4.7	100	0.040	9.00	5.50
SMC0630LF-5R6M	5.6	100	0.060	7.00	5.00
SMC0630LF-6R8M	6.8	100	0.070	6.00	4.50
SMC0630LF-8R2M	8.2	100	0.080	5.80	4.00
SMC0630LF-100M	10	100	0.105	5.50	3.00
SMC0630LF-150M	15	100	0.140	4.00	2.80
SMC0630LF-220M	22	100	0.167	3.50	2.50
SMC0630LF-330M	33	100	0.280	2.00	1.00
SMC0630LF-470M	47	100	0.290	1.80	0.80

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Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0640LF-R56M	0.56	100	0.006	22.0	14.0
SMC0640LF-R68M	0.68	100	0.007	20.0	13.0
SMC0640LF-1R0M	1.0	100	0.009	19.0	12.0
SMC0640LF-1R5M	1.5	100	0.015	16.0	10.0
SMC0640LF-2R2M	2.2	100	0.018	14.0	8.50
SMC0640LF-3R3M	3.3	100	0.020	13.0	7.00
SMC0640LF-4R7M	4.7	100	0.028	8.00	6.00

Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC0650LF-R22M	0.22	100	0.004	35.0	20.0
SMC0650LF-R47M	0.47	100	0.005	25.0	18.0
SMC0650LF-R56M	0.56	100	0.006	23.0	17.0
SMC0650LF-R68M	0.68	100	0.007	19.0	14.0
SMC0650LF-R82M	0.82	100	0.008	18.0	13.5
SMC0650LF-1R0M	1.0	100	0.009	17.0	13.0
SMC0650LF-1R5M	1.5	100	0.010	12.0	11.5
SMC0650LF-2R2M	2.2	100	0.013	11.0	8.00
SMC0650LF-3R3M	3.3	100	0.020	9.00	7.00
SMC0650LF-3R8M	3.8	100	0.025	8.00	6.50
SMC0650LF-4R7M	4.7	100	0.027	7.00	6.00
SMC0650LF-4R9M	4.9	100	0.028	6.50	5.70
SMC0650LF-5R6M	5.6	100	0.030	6.00	5.30
SMC0650LF-6R8M	6.8	100	0.038	5.80	5.00
SMC0650LF-8R2M	8.2	100	0.040	5.50	4.00
SMC0650LF-100M	10	100	0.060	5.30	3.50
SMC0650LF-150M	15	100	0.086	5.00	3.00
SMC0650LF-220M	22	100	0.095	4.00	2.40
SMC0650LF-330M	33	100	0.237	3.00	2.00
SMC0650LF-470M	47	100	0.280	2.00	1.60
SMC0650LF-680M	68	100	0.310	1.80	1.30

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Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC1030LF-1R0M	1.0	100	0.007	18.0	13.0
SMC1030LF-1R5M	1.5	100	0.009	16.0	10.0
SMC1030LF-2R2M	2.2	100	0.012	14.0	9.00
SMC1030LF-4R7M	4.7	100	0.025	8.50	6.00
SMC1030LF-8R2M	8.2	100	0.055	6.00	4.00
SMC1030LF-100M	10	100	0.056	5.00	3.80
SMC1030LF-150M	15	100	0.065	4.00	3.50

Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC1040LF-R22M	0.22	100	0.001	60.0	30.0
SMC1040LF-R33M	0.33	100	0.0015	50.0	29.0
SMC1040LF-R36M	0.36	100	0.0016	45.0	28.0
SMC1040LF-R47M	0.47	100	0.0018	38.0	26.0
SMC1040LF-R56M	0.56	100	0.002	33.0	23.0
SMC1040LF-R68M	0.68	100	0.003	32.0	22.0
SMC1040LF-R82M	0.82	100	0.0035	30.0	21.0
SMC1040LF-1R0M	1.0	100	0.005	28.0	18.0
SMC1040LF-1R5M	1.5	100	0.006	27.0	16.0
SMC1040LF-2R2M	2.2	100	0.009	25.0	12.0
SMC1040LF-3R3M	3.3	100	0.014	16.0	10.0
SMC1040LF-3R9M	3.9	100	0.016	15.0	9.00
SMC1040LF-4R7M	4.7	100	0.020	14.0	8.00
SMC1040LF-5R6M	5.6	100	0.025	13.0	7.50
SMC1040LF-6R8M	6.8	100	0.028	12.0	7.00
SMC1040LF-8R2M	8.2	100	0.033	9.00	6.00
SMC1040LF-100M	10	100	0.040	8.70	5.00
SMC1040LF-120M	12	100	0.048	8.00	4.50
SMC1040LF-150M	15	100	0.054	7.00	4.00
SMC1040LF-220M	22	100	0.060	6.00	3.50
SMC1040LF-330M	33	100	0.145	4.50	3.00
SMC1040LF-470M	47	100	0.175	3.00	2.50
SMC1040LF-680M	68	100	0.220	2.50	2.00
SMC1040LF-101M	100	100	0.270	2.00	1.00

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Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC1050LF-R82M	0.82	100	0.003	32.0	16.0
SMC1050LF-1R0M	1.0	100	0.004	30.0	15.0
SMC1050LF-1R8M	1.8	100	0.006	27.5	14.5
SMC1050LF-2R2M	2.2	100	0.008	27.0	14.0
SMC1050LF-3R3M	3.3	100	0.011	19.0	10.0
SMC1050LF-4R7M	4.7	100	0.017	14.0	9.00
SMC1050LF-6R8M	6.8	100	0.022	10.0	8.00
SMC1050LF-100M	10	100	0.038	9.00	6.80
SMC1050LF-150M	15	100	0.045	8.00	6.00
SMC1050LF-220M	22	100	0.060	7.00	5.00
SMC1050LF-330M	33	100	0.145	6.00	3.50

Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC1335LF-R22M	0.22	100	0.002	65.0	25.0
SMC1335LF-R47M	0.47	100	0.0025	49.0	20.0
SMC1335LF-R68M	0.68	100	0.003	35.0	18.0
SMC1335LF-1R0M	1.0	100	0.004	26.0	15.0
SMC1335LF-1R5M	1.5	100	0.005	24.0	14.5
SMC1335LF-2R2M	2.2	100	0.008	20.0	14.0
SMC1335LF-3R3M	3.3	100	0.012	16.0	12.0
SMC1335LF-4R7M	4.7	100	0.015	14.0	10.0
SMC1335LF-6R8M	6.8	100	0.025	12.0	8.00
SMC1335LF-100M	10	100	0.035	10.0	6.00

Part Number	L (μ H)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC1340LF-R22M	0.22	100	0.002	55.0	23.0
SMC1340LF-R60M	0.60	100	0.003	40.0	22.0
SMC1340LF-1R0M	1.0	100	0.004	38.0	19.0
SMC1340LF-1R5M	1.5	100	0.005	30.0	16.0
SMC1340LF-2R2M	2.2	100	0.010	22.0	15.0
SMC1340LF-3R3M	3.3	100	0.011	20.0	14.0
SMC1340LF-4R7M	4.7	100	0.014	15.0	9.00
SMC1340LF-6R8M	6.8	100	0.024	12.0	7.00
SMC1340LF-100M	10	100	0.035	10.0	6.00
SMC1340LF-220M	22	100	0.080	7.00	4.00

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Part Number	L (uH)	Test Freq. (KHz)	DCR Max. (Ω)	Saturation Current (A)	Heat Rating Current (A)
SMC1350LF-R33M	0.33	100	0.002	60.0	32.0
SMC1350LF-R36M	0.36	100	0.002	50.0	28.0
SMC1350LF-R47M	0.47	100	0.002	48.0	25.0
SMC1350LF-R56M	0.56	100	0.002	46.0	23.0
SMC1350LF-R68M	0.68	100	0.002	40.0	20.0
SMC1350LF-R82M	0.82	100	0.003	39.0	19.0
SMC1350LF-1R0M	1.0	100	0.004	35.0	18.0
SMC1350LF-1R5M	1.5	100	0.005	33.0	17.5
SMC1350LF-1R8M	1.8	100	0.005	30.0	17.0
SMC1350LF-2R2M	2.2	100	0.005	25.0	16.0
SMC1350LF-3R3M	3.3	100	0.013	23.0	15.0
SMC1350LF-4R7M	4.7	100	0.015	21.0	12.0
SMC1350LF-5R6M	5.6	100	0.017	20.0	11.5
SMC1350LF-6R8M	6.8	100	0.019	18.0	11.0
SMC1350LF-8R2M	8.2	100	0.023	17.0	10.0
SMC1350LF-100M	10	100	0.026	13.0	6.00
SMC1350LF-150M	15	100	0.060	12.0	5.50
SMC1350LF-220M	22	100	0.075	8.00	4.00
SMC1350LF-330M	33	100	0.082	6.00	3.00
SMC1350LF-470M	47	100	0.090	3.50	2.50
SMC1350LF-560M	56	100	0.180	3.30	2.00
SMC1350LF-680M	68	100	0.210	3.00	1.50

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