SP06 Series Shielded Power Inductors

Features

- Magnetic-resin shielded construction
- Frequency range up to 5MHz
- 30% higher current rating than conventional inductors of equal size
- Takes up less PCB real estate and save more power

Applications

- High current POL converters
- Low profile,high current power supplies
- DC-DC converters,etc.
- PAD,flat-screen TVs,set top box,movie cameras,servers,etc.

Environmental Data

- Storage temperature range:-40℃ to +85℃
- Operating temperature range:-40℃ to +125℃ (including coil's self-temperature rise)
- Solder reflow temperature:+260℃ Max for 10 seconds Max
- Moisture sensitivity level:1
- RoHS&HF compliance

Packaging

- Supplied in tape and reel packaging, SP06-030012,SP06-030015,used 7-inch reel,Other used 13-inch reel,quantity of packing see page 2

Mechanical Dimension(Unit:mm/inches)

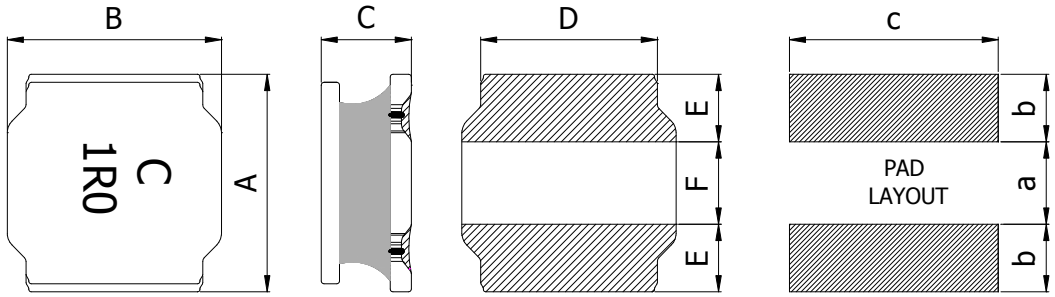


Fig.1

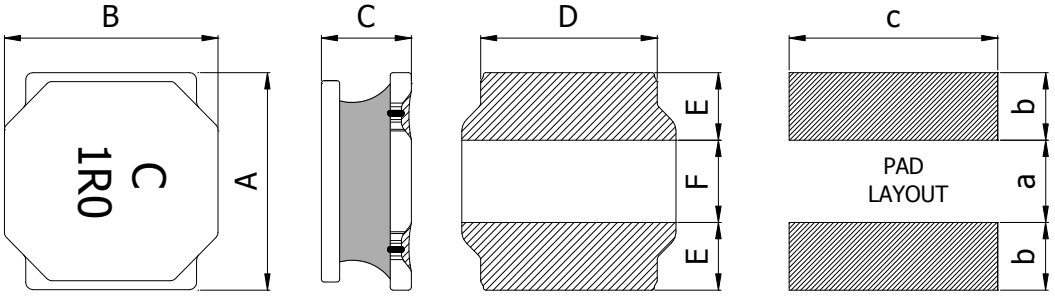


Fig.2

Shape

Type	Shape	Type	Shape	Type	Shape
SP06-030012	Fig.2	SP06-040026	Fig.1	SP06-060020	Fig.2
SP06-030015	Fig.1	SP06-040030	Fig.1	SP06-060028	Fig.1
SP06-040018	Fig.1	SP06-050020	Fig.2	SP06-060045	Fig.1
SP06-040020	Fig.1	SP06-050040	Fig.2	SP06-080040	Fig.1

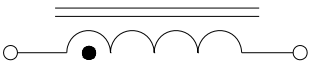
SP06 Series Shielded Power Inductors

Type	A	B	C	D	E	F	a	b	c
			Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SP06-030012	3.0±0.2	3.0±0.2	1.2	2.5	0.75	1.5	1.5	0.8	2.7
	0.118±0.008	0.118±0.008	0.048	0.098	0.03	0.059	0.059	0.032	0.106
SP06-030015	3.0±0.2	3.0±0.2	1.5	2.5	0.75	1.5	1.5	0.8	2.7
	0.118±0.008	0.118±0.008	0.059	0.098	0.03	0.059	0.059	0.032	0.106
SP06-040018	4.0±0.2	4.0±0.2	1.8	3.3	0.95	2.1	1.9	1.1	3.7
	0.158±0.008	0.158±0.008	0.071	0.13	0.037	0.083	0.075	0.043	0.146
SP06-040020	4.0±0.2	4.0±0.2	2.0	3.3	0.95	2.1	1.9	1.1	3.7
	0.158±0.008	0.158±0.008	0.079	0.13	0.037	0.083	0.075	0.043	0.146
SP06-040026	4.0±0.2	4.0±0.2	2.6	3.3	0.95	2.1	1.9	1.1	3.7
	0.158±0.008	0.158±0.008	0.103	0.13	0.037	0.083	0.075	0.043	0.146
SP06-040030	4.0±0.2	4.0±0.2	3.0	3.3	0.95	2.1	1.9	1.1	3.7
	0.158±0.008	0.158±0.008	0.118	0.13	0.037	0.083	0.075	0.043	0.146
SP06-050020	5.0±0.2	5.0±0.2	2.0	4.0	1.25	2.5	2.3	1.4	4.2
	0.197±0.008	0.197±0.008	0.079	0.158	0.049	0.098	0.091	0.055	0.166
SP06-050040	5.0±0.2	5.0±0.2	4.0	4.0	1.25	2.5	2.3	1.4	4.2
	0.197±0.008	0.197±0.008	0.158	0.158	0.049	0.098	0.091	0.055	0.166
SP06-060020	6.0±0.3	6.0±0.3	2.0	4.9	1.55	2.9	2.8	1.7	5.7
	0.236±0.012	0.236±0.012	0.079	0.193	0.061	0.114	0.11	0.067	0.225
SP06-060028	6.0±0.3	6.0±0.3	2.8	4.9	1.55	2.9	2.8	1.7	5.7
	0.236±0.012	0.236±0.012	0.11	0.193	0.061	0.114	0.11	0.067	0.225
SP06-060045	6.0±0.3	6.0±0.3	4.5	4.9	1.55	2.9	2.8	1.7	5.7
	0.236±0.012	0.236±0.012	0.177	0.193	0.061	0.114	0.11	0.067	0.225
SP06-080040	8.0±0.3	8.0±0.3	4.2	6.3	2.0	4.0	3.8	2.2	7.5
	0.315±0.012	0.315±0.012	0.166	0.25	0.079	0.158	0.15	0.087	0.296

Packaging

Type	Quantity (per reel)	Type	Quantity (per reel)	Type	Quantity (per reel)
SP06-030012	2000	SP06-040026	2500	SP06-060020	2500
SP06-030015	2000	SP06-040030	2000	SP06-060028	2000
SP06-040018	3000	SP06-050020	2500	SP06-060045	1500
SP06-040020	3000	SP06-050040	1500	SP06-080040	1000

Electrical Schematic



Part Number Description

SP06 - 030012 1R0 N

① ② ③ ④

① Type
② Dimensions
③ Inductance value
④ Tolerance code

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-030012R22N	0.22	0.017	321	5.30	6.00	3.00	3.30	R22
SP06-030012R82N	0.82	0.030	180	2.05	2.80	2.47	3.00	R82
SP06-0300121R0N	1.0	0.040	120	1.87	2.80	2.20	2.70	1R0
SP06-0300121R5N	1.5	0.045	110	1.62	1.90	2.01	2.20	1R5
SP06-0300121R8N	1.8	0.063	90	1.30	1.90	1.65	1.80	1R8
SP06-0300122R2N	2.2	0.075	84	1.20	1.90	1.55	1.70	2R2
SP06-0300122R7N	2.7	0.085	65	1.14	1.50	1.48	1.50	2R7
SP06-0300123R3M	3.3	0.100	64	1.05	1.50	1.36	1.40	3R3
SP06-0300123R9M	3.9	0.145	61	1.00	1.30	1.24	1.30	3R9
SP06-0300124R7M	4.7	0.120	61	0.90	1.00	1.24	1.30	4R7
SP06-0300125R6M	5.6	0.174	61	0.80	1.10	1.13	1.24	5R6
SP06-0300126R8M	6.8	0.190	61	0.75	0.90	0.98	1.10	6R8
SP06-030012100M	10	0.265	42	0.60	0.88	0.83	0.90	100
SP06-030012120M	12	0.345	32	0.48	0.67	0.73	0.84	120
SP06-030012150M	15	0.360	27	0.45	0.62	0.71	0.77	150
SP06-030012180M	18	0.545	25	0.43	0.59	0.58	0.65	180
SP06-030012220M	22	0.645	23	0.42	0.52	0.53	0.59	220
SP06-030012270M	27	0.870	21	0.35	0.48	0.47	0.51	270
SP06-030012330M	33	0.875	18	0.36	0.46	0.46	0.50	330
SP06-030012390M	39	1.33	18	0.30	0.39	0.37	0.41	390
SP06-030012470M	47	1.45	14	0.27	0.35	0.35	0.40	470
SP06-030012560M	56	1.38	9	0.26	0.33	0.28	0.40	560
SP06-030012680M	68	1.67	7	0.24	0.29	0.33	0.37	680
SP06-030012820M	82	2.54	7	0.17	0.27	0.27	0.31	820
SP06-030012101M	100	2.86	5	0.21	0.23	0.25	0.29	101

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40℃.

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Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-030015R50N	0.5	0.030	162	3.90	4.20	2.60	2.80	R50
SP06-0300151R0N	1.0	0.030	150	2.32	2.80	2.35	2.50	1R0
SP06-0300151R5N	1.5	0.050	100	2.30	2.70	1.70	2.20	1R5
SP06-0300151R8N	1.8	0.050	92	1.75	2.20	1.70	2.20	1R8
SP06-0300152R2N	2.2	0.060	86	1.60	2.00	1.60	2.00	2R2
SP06-0300153R3M	3.3	0.080	68	1.32	1.81	1.36	1.60	3R3
SP06-0300153R9M	3.9	0.105	47	1.20	1.40	1.20	1.50	3R9
SP06-0300154R7M	4.7	0.125	46	1.10	1.40	1.09	1.30	4R7
SP06-0300156R8M	6.8	0.200	39	0.85	1.10	0.85	1.10	6R8
SP06-030015100M	10	0.250	41	0.72	0.92	0.77	0.90	100
SP06-030015120M	12	0.320	32	0.70	0.90	0.68	0.89	120
SP06-030015150M	15	0.350	30	0.66	0.88	0.65	0.72	150
SP06-030015180M	18	0.430	23	0.56	0.72	0.59	0.72	180
SP06-030015220M	22	0.460	23	0.52	0.68	0.57	0.69	220
SP06-030015270M	27	0.730	22	0.48	0.56	0.45	0.56	270
SP06-030015330M	33	0.820	20	0.44	0.53	0.43	0.51	330
SP06-030015390M	39	0.995	14	0.41	0.55	0.39	0.44	390
SP06-030015470M	47	1.25	14	0.35	0.43	0.35	0.44	470
SP06-030015560M	56	1.28	13	0.33	0.42	0.34	0.41	560
SP06-030015680M	68	2.70	11	0.28	0.37	0.23	0.31	680
SP06-030015101M	100	3.11	6.3	0.23	0.25	0.21	0.25	101
SP06-030015151M	150	3.80	4.7	0.18	0.22	0.19	0.23	151

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
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Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-040018R47N	0.47	0.014	155	4.30	5.20	4.00	4.50	CR47
SP06-040018R68N	0.68	0.020	128	4.90	5.60	3.30	3.80	CR68
SP06-0400181R0N	1.0	0.025	80	4.80	5.20	2.00	3.30	C1R0
SP06-0400181R5N	1.5	0.030	65	3.35	4.00	1.80	3.20	C1R5
SP06-0400181R8N	1.8	0.034	54	3.00	3.40	2.00	2.80	C1R8
SP06-0400182R2M	2.2	0.045	52	2.70	3.20	1.65	2.60	C2R2
SP06-0400183R3M	3.3	0.07	44	2.45	2.90	1.23	2.10	C3R3
SP06-0400184R7M	4.7	0.09	34	1.70	2.20	1.20	1.80	C4R7
SP06-0400186R8M	6.8	0.11	29	1.45	2.00	1.06	1.50	C6R8
SP06-040018100M	10	0.18	24	1.30	1.60	0.84	1.20	C100
SP06-040018150M	15	0.25	19	0.94	1.10	0.65	1.00	C150
SP06-040018220M	22	0.36	16	0.80	0.88	0.59	0.85	C220
SP06-040018330M	33	0.53	12	0.56	0.75	0.49	0.72	C330
SP06-040018470M	47	0.65	10	0.57	0.70	0.42	0.65	C470
SP06-040018680M	68	1.00	8.3	0.47	0.51	0.32	0.52	C680
SP06-040018101M	100	1.75	6.5	0.40	0.44	0.25	0.41	C101
SP06-040018151M	150	2.50	5.5	0.31	0.34	0.22	0.36	C151
SP06-040018221M	220	4.00	4.0	0.27	0.30	0.17	0.27	C221

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Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-040020R24N	0.24	0.011	283	10.50	12.50	4.50	5.20	CR24
SP06-040020R33N	0.33	0.013	223	7.50	8.50	3.30	4.90	CR33
SP06-040020R47N	0.47	0.022	160	7.00	7.50	3.30	3.70	CR47
SP06-040020R68N	0.68	0.028	120	6.40	6.60	2.80	3.30	CR68
SP06-0400201R0N	1.0	0.029	75	4.78	5.20	2.15	3.20	C1R0
SP06-0400201R2N	1.2	0.029	72	5.10	5.60	2.15	3.20	C1R2
SP06-0400201R5N	1.5	0.035	71	4.45	4.90	1.98	3.00	C1R5
SP06-0400202R2N	2.2	0.040	49	3.40	3.70	1.85	2.80	C2R2
SP06-0400203R3M	3.3	0.070	44	3.20	3.50	1.40	2.50	C3R3
SP06-0400203R6M	3.6	0.055	49	2.80	3.00	1.54	2.50	C3R6
SP06-0400204R7M	4.7	0.075	42	2.35	2.50	1.34	2.00	C4R7
SP06-0400205R1M	5.1	0.085	42	2.30	2.50	1.27	1.80	C5R1
SP06-0400205R6M	5.6	0.090	30	2.20	2.40	1.22	1.80	C5R6
SP06-0400206R2M	6.2	0.115	36	2.15	2.30	1.08	1.60	C6R2
SP06-0400206R8M	6.8	0.125	33	2.20	2.40	1.04	1.60	C6R8
SP06-0400207R5M	7.5	0.115	30	1.85	2.00	1.08	1.50	C7R5
SP06-0400208R2M	8.2	0.125	27	1.75	1.90	1.04	1.40	C8R2
SP06-040020100M	10	0.165	26	1.60	1.70	0.90	1.20	C100
SP06-040020120M	12	0.175	26	1.50	1.60	0.88	1.20	C120
SP06-040020150M	15	0.230	24	1.35	1.50	0.77	1.10	C150
SP06-040020220M	22	0.350	15	1.05	1.10	0.62	0.87	C220
SP06-040020270M	27	0.545	14	1.02	1.10	0.50	0.70	C270
SP06-040020330M	33	0.55	11	0.85	0.93	0.49	0.68	C330
SP06-040020390M	39	0.65	11	0.82	0.90	0.46	0.64	C390
SP06-040020430M	43	0.66	10	0.77	0.85	0.45	0.63	C430
SP06-040020470M	47	0.71	10	0.74	0.81	0.44	0.61	C470
SP06-040020510M	51	0.75	10	0.70	0.77	0.42	0.59	C510
SP06-040020560M	56	0.80	10	0.66	0.72	0.41	0.57	C560
SP06-040020620M	62	0.90	9.6	0.65	0.71	0.39	0.52	C620
SP06-040020680M	68	1.06	7.7	0.61	0.67	0.36	0.50	C680
SP06-040020750M	75	1.16	7.7	0.70	0.77	0.35	0.49	C750
SP06-040020820M	82	1.17	7.2	0.50	0.55	0.34	0.47	C820
SP06-040020101M	100	1.55	6.3	0.48	0.53	0.31	0.43	C101

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Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-0400261R0N	1.0	0.024	151	3.30	3.80	3.00	3.30	C1R0
SP06-0400261R2N	1.2	0.030	120	3.10	3.40	2.30	3.30	C1R2
SP06-0400261R5N	1.5	0.030	100	2.40	2.90	2.30	3.10	C1R5
SP06-0400262R2M	2.2	0.040	96	2.10	2.40	2.00	3.80	C2R2
SP06-0400263R3M	3.3	0.050	58	1.80	2.00	1.70	2.50	C3R3
SP06-0400264R7M	4.7	0.055	46	1.45	1.70	1.60	2.30	C4R7
SP06-0400266R8M	6.8	0.065	33	1.30	1.50	1.50	2.00	C6R8
SP06-040026100M	10	0.085	26	1.00	1.20	1.30	1.90	C100
SP06-040026150M	15	0.110	19	0.90	1.00	1.10	1.50	C150
SP06-040026220M	22	0.165	13	0.60	0.80	0.90	1.40	C220
SP06-040026330M	33	0.27	9	0.55	0.65	0.70	1.00	C330
SP06-040026470M	47	0.30	6	0.40	0.55	0.65	0.90	C470

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
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Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-040030R68N	0.68	0.010	130	6.80	8.00	4.56	5.10	CR68
SP06-0400301R0N	1.0	0.014	70	5.26	5.70	4.15	4.70	C1R0
SP06-0400301R2N	1.2	0.015	80	5.80	6.30	3.82	4.20	C1R2
SP06-0400301R5N	1.5	0.020	62	4.84	5.30	3.34	3.60	C1R5
SP06-0400302R2N	2.2	0.030	52	4.90	5.80	2.95	3.20	C2R2
SP06-0400303R3M	3.3	0.040	38	3.30	3.60	2.40	2.60	C3R3
SP06-0400304R7M	4.7	0.060	31	2.90	3.20	2.00	2.30	C4R7
SP06-0400305R6M	5.6	0.065	30	2.60	2.80	1.95	2.10	C5R6
SP06-0400306R8M	6.8	0.090	24	2.75	3.00	1.60	1.70	C6R8
SP06-0400308R2M	8.2	0.090	26	2.10	2.30	1.60	1.70	C8R2
SP06-040030100M	10	0.100	21	1.95	2.40	1.50	1.60	C100
SP06-040030120M	12	0.135	18	1.70	1.80	1.30	1.40	C120
SP06-040030150M	15	0.190	16	1.65	1.80	1.11	1.20	C150
SP06-040030220M	22	0.225	10	1.30	1.40	1.00	1.20	C220
SP06-040030270M	27	0.260	10	1.15	1.35	0.90	1.05	C270
SP06-040030330M	33	0.330	10	1.10	1.20	0.84	0.92	C330
SP06-040030390M	39	0.435	10	1.03	1.10	0.73	0.80	C390
SP06-040030470M	47	0.445	8.4	0.95	1.00	0.72	0.80	C470
SP06-040030560M	56	0.555	8.4	0.85	0.94	0.65	0.71	C560
SP06-040030680M	68	0.868	7.0	0.72	0.80	0.52	0.57	C680
SP06-040030820M	82	1.06	5.6	0.66	0.72	0.47	0.52	C820
SP06-040030101M	100	1.15	5.6	0.60	0.73	0.45	0.49	C101
SP06-040030121M	120	1.35	5.4	0.55	0.60	0.42	0.46	C121
SP06-040030151M	150	1.80	4.0	0.50	0.60	0.30	0.41	C151
SP06-040030221M	220	2.50	4.2	0.40	0.50	0.35	0.40	C221
SP06-040030331M	330	4.00	6.8	0.30	0.40	0.25	0.26	C331
SP06-040030471M	470	7.20	2.0	0.30	0.35	0.20	0.21	C471
SP06-040030681M	680	7.58	1.2	0.19	0.23	0.14	0.19	C681

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40℃.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-050020R47N	0.47	0.013	160	6.15	6.70	4.60	5.00	CR47
SP06-050020R68N	0.68	0.017	120	5.50	6.00	4.00	4.40	CR68
SP06-0500201R0N	1.0	0.020	114	4.10	5.00	3.80	4.10	C1R0
SP06-0500201R2N	1.2	0.022	83	4.50	4.90	3.55	3.90	C1R2
SP06-0500201R5N	1.5	0.026	68	4.10	4.50	3.20	3.50	C1R5
SP06-0500202R2N	2.2	0.032	57	3.20	4.00	2.90	3.10	C2R2
SP06-0500203R3N	3.3	0.043	46	2.55	3.00	2.50	2.70	C3R3
SP06-0500203R9N	3.9	0.043	40	2.30	2.80	2.50	2.70	C3R9
SP06-0500204R7M	4.7	0.057	37	2.50	2.70	2.20	2.40	C4R7
SP06-0500205R6M	5.6	0.064	32	2.30	2.50	2.05	2.20	C5R6
SP06-0500206R8M	6.8	0.083	30	2.05	2.20	1.80	1.90	C6R8
SP06-0500208R2M	8.2	0.098	26	1.85	2.00	1.65	1.80	C8R2
SP06-050020100M	10	0.110	24	1.70	1.80	1.55	1.70	C100
SP06-050020120M	12	0.140	22	1.50	1.60	1.40	1.50	C120
SP06-050020150M	15	0.165	20	1.35	1.40	1.25	1.30	C150
SP06-050020220M	22	0.226	14	1.15	1.20	1.10	1.20	C220
SP06-050020330M	33	3.900	10	0.92	1.00	0.90	0.99	C330
SP06-050020470M	47	0.523	7.0	0.77	0.84	0.77	0.84	C470
SP06-050020560M	56	0.630	6.0	0.77	0.84	0.70	0.77	C560
SP06-050020680M	68	0.740	6.0	0.65	0.70	0.64	0.70	C680
SP06-050020820M	82	0.97	6.0	0.65	0.75	0.50	0.60	C820
SP06-050020101M	100	1.10	6.0	0.53	0.58	0.53	0.58	C101
SP06-050020121M	120	1.35	6.0	0.42	0.53	0.40	0.50	C121
SP06-050020201M	200	2.00	4.5	0.30	0.33	0.40	0.45	C201

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40℃.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-0500401R0N	1.0	0.012	117	7.35	8.00	4.90	5.00	C1R0
SP06-0500401R2N	1.2	0.016	110	6.50	7.00	4.15	4.25	C1R2
SP06-0500401R5N	1.5	0.015	86	6.30	6.80	4.30	4.85	C1R5
SP06-0500401R8N	1.8	0.016	55	5.50	6.05	4.15	4.30	C1R8
SP06-0500402R2N	2.2	0.019	50	4.90	5.50	3.80	4.20	C2R2
SP06-0500402R7N	2.7	0.022	37	4.30	4.80	3.60	4.00	C2R7
SP06-0500403R0N	3.0	0.022	37	4.15	4.60	3.60	4.00	C3R0
SP06-0500403R3M	3.3	0.024	32	3.95	4.45	3.40	3.90	C3R3
SP06-0500403R6M	3.6	0.026	30	3.80	4.40	3.30	3.70	C3R6
SP06-0500403R9M	3.9	0.027	29	3.55	4.00	3.20	3.70	C3R9
SP06-0500404R7M	4.7	0.030	28	3.50	3.80	3.00	3.30	C4R7
SP06-0500405R6M	5.6	0.035	27	3.00	3.70	2.80	3.10	C5R6
SP06-0500406R8M	6.8	0.043	21	2.90	3.40	2.50	2.80	C6R8
SP06-0500408R2M	8.2	0.048	20	2.70	2.90	2.30	2.60	C8R2
SP06-050040100M	10	0.064	18	2.35	2.70	2.10	2.35	C100
SP06-050040150M	15	0.086	13	2.00	2.20	2.00	2.05	C150
SP06-050040220M	22	0.129	11	1.60	1.80	1.50	1.60	C220
SP06-050040330M	33	0.188	9	1.30	1.45	1.20	1.35	C330
SP06-050040470M	47	0.272	7	1.10	1.20	1.00	1.15	C470
SP06-050040680M	68	0.40	6	0.90	1.00	0.80	0.90	C680
SP06-050040101M	100	0.56	5	0.75	0.85	0.70	0.78	C101
SP06-050040151M	150	0.75	3.7	0.65	0.67	0.60	0.70	C151
SP06-050040102M	1000	6.00	1.3	0.21	0.25	0.20	0.23	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40℃.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-060020R68N	0.68	0.017	115	6.55	7.80	3.80	4.80	CR68
SP06-060020R82N	0.82	0.017	110	5.30	6.30	3.80	4.80	CR82
SP06-0600201R0N	1.0	0.020	100	4.15	5.00	3.50	4.40	C1R0
SP06-0600201R2N	1.2	0.022	88	5.90	7.00	3.20	4.00	C1R2
SP06-0600201R5N	1.5	0.022	79	4.25	5.10	3.20	4.00	C1R5
SP06-0600201R8N	1.8	0.028	68	4.85	5.80	2.75	3.50	C1R8
SP06-0600202R0N	2.0	0.035	65	4.10	4.90	2.60	3.30	C2R0
SP06-0600202R2N	2.2	0.028	61	3.75	4.50	2.75	3.50	C2R2
SP06-0600202R7N	2.7	0.035	56	3.90	4.60	2.60	3.30	C2R7
SP06-0600203R3M	3.3	0.035	51	3.15	3.70	2.60	3.30	C3R3
SP06-0600203R9M	3.9	0.049	45	3.25	3.90	2.10	2.60	C3R9
SP06-0600204R7M	4.7	0.058	41	3.00	3.60	2.00	2.50	C4R7
SP06-0600205R6M	5.6	0.058	36	2.40	2.90	1.90	2.40	C5R6
SP06-0600206R8M	6.8	0.079	31	2.20	2.60	1.80	2.30	C6R8
SP06-0600208R2M	8.2	0.105	27	2.10	2.50	1.40	1.80	C8R2
SP06-060020100M	10	0.105	27	1.75	2.10	1.40	1.80	C100
SP06-060020120M	12	0.120	25	1.45	1.70	1.30	1.60	C120
SP06-060020150M	15	0.145	21	1.20	1.40	1.20	1.50	C150
SP06-060020180M	18	0.180	18	1.20	1.40	1.08	1.40	C180
SP06-060020220M	22	0.204	16	1.05	1.20	1.00	1.30	C220
SP06-060020330M	33	0.300	11	0.95	1.10	0.84	1.05	C330
SP06-060020470M	47	0.430	10	0.70	0.90	0.80	0.90	C470

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40℃.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-060028R82N	0.82	0.012	97	6.50	9.00	5.20	6.00	CR82
SP06-0600281R0N	1.0	0.010	70	5.75	7.00	5.20	5.70	C1R0
SP06-0600281R2N	1.2	0.013	69	6.40	7.50	4.58	5.00	C1R2
SP06-0600281R5N	1.5	0.013	65	6.00	6.60	4.58	5.00	C1R5
SP06-0600282R2N	2.2	0.020	48	5.10	5.60	3.75	4.10	C2R2
SP06-0600282R7N	2.7	0.020	48	3.80	4.10	3.75	4.10	C2R7
SP06-0600283R3M	3.3	0.025	41	4.15	4.50	3.48	3.80	C3R3
SP06-0600284R7M	4.7	0.030	35	3.00	3.30	3.08	3.40	C4R7
SP06-0600285R1M	5.1	0.043	32	3.20	3.50	2.60	2.80	C5R1
SP06-0600286R2M	6.2	0.047	30	3.05	3.30	2.40	2.60	C6R2
SP06-0600286R8M	6.8	0.047	27	2.60	3.00	2.40	2.60	C6R8
SP06-0600288R2M	8.2	0.055	24	2.30	2.50	2.25	2.50	C8R2
SP06-060028100M	10	0.072	23	2.04	2.50	1.95	2.40	C100
SP06-060028120M	12	0.080	18	1.80	2.00	1.85	2.00	C120
SP06-060028150M	15	0.125	18	1.75	1.90	1.45	1.60	C150
SP06-060028180M	18	0.120	15	1.52	1.80	1.45	1.60	C180
SP06-060028220M	22	0.140	14	1.45	1.80	1.40	1.60	C220
SP06-060028270M	27	0.155	13	1.50	1.60	1.32	1.40	C270
SP06-060028330M	33	0.185	12	1.35	1.50	1.22	1.30	C330
SP06-060028360M	36	0.215	11	1.25	1.40	1.13	1.20	C360
SP06-060028390M	39	0.225	11	1.25	1.40	1.10	1.20	C390
SP06-060028470M	47	0.315	9.5	1.15	1.30	1.06	1.10	C470
SP06-060028560M	56	0.345	8.2	1.05	1.20	0.89	1.00	C560
SP06-060028680M	68	0.36	7.7	0.80	0.95	0.86	0.95	C680
SP06-060028750M	75	0.41	7.7	0.90	0.99	0.81	0.90	C750
SP06-060028820M	82	0.50	7.7	0.80	0.88	0.70	0.77	C820
SP06-060028101M	100	0.50	7.1	0.65	0.71	0.70	0.77	C101
SP06-060028401M	400	2.16	2.8	0.30	0.33	0.40	0.45	C401
SP06-060028102M	1000	5.80	1.5	0.18	0.22	0.23	0.26	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40℃.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-060045R47N	0.47	0.006	155	15.0	16.5	6.50	6.60	CR47
SP06-060045R68N	0.68	0.006	99	11.0	12.0	5.70	6.50	CR68
SP06-0600451R0N	1.0	0.011	100	9.85	10.0	5.14	5.60	C1R0
SP06-0600451R2N	1.2	0.010	100	8.35	9.10	5.40	5.90	C1R2
SP06-0600451R5N	1.5	0.012	65	8.80	9.70	4.95	5.40	C1R5
SP06-0600451R8N	1.8	0.012	74	7.60	8.40	4.95	5.40	C1R8
SP06-0600452R2N	2.2	0.014	52	6.75	7.40	4.60	5.00	C2R2
SP06-0600452R7N	2.7	0.015	38	5.75	6.30	4.30	4.70	C2R7
SP06-0600453R3N	3.3	0.021	32	5.90	6.20	3.70	4.00	C3R3
SP06-0600453R6N	3.6	0.021	28	5.25	5.70	3.70	4.00	C3R6
SP06-0600454R7M	4.7	0.026	24	4.97	5.50	3.30	3.60	C4R7
SP06-0600455R6M	5.6	0.029	23	4.15	4.60	3.15	3.40	C5R6
SP06-0600456R8M	6.8	0.031	20	3.90	4.30	3.00	3.30	C6R8
SP06-0600458R2M	8.2	0.043	21	3.90	4.30	2.60	2.80	C8R2
SP06-060045100M	10	0.048	15	3.20	3.50	2.45	2.70	C100
SP06-060045120M	12	0.058	13	2.80	3.00	2.20	2.40	C120
SP06-060045150M	15	0.068	12	2.50	2.70	2.05	2.20	C150
SP06-060045180M	18	0.081	10	2.20	2.40	1.85	2.00	C180
SP06-060045220M	22	0.089	10	2.05	2.20	1.80	2.00	C220
SP06-060045270M	27	0.102	9.2	1.90	2.10	1.65	1.80	C270
SP06-060045330M	33	0.137	7.8	1.65	1.80	1.45	1.60	C330
SP06-060045360M	36	0.173	7.8	1.62	1.80	1.40	1.50	C360
SP06-060045390M	39	0.180	7.8	1.50	1.60	1.25	1.40	C390
SP06-060045470M	47	0.200	6.4	1.40	1.50	1.20	1.30	C470
SP06-060045560M	56	0.221	6.4	1.30	1.40	1.10	1.20	C560
SP06-060045680M	68	0.289	6.4	1.20	1.30	1.00	1.10	C680
SP06-060045750M	75	0.305	5.0	1.15	1.20	0.95	1.00	C750
SP06-060045820M	82	0.341	4.9	1.05	1.10	0.90	0.99	C820
SP06-060045101M	100	0.433	4.2	0.95	1.00	0.80	0.88	C101
SP06-060045121M	120	0.484	4.2	0.85	0.94	0.77	0.85	C121
SP06-060045151M	150	0.580	4.2	0.80	0.88	0.70	0.77	C151
SP06-060045221M	220	0.834	3.5	0.70	0.77	0.59	0.65	C221
SP06-060045331M	330	1.27	2.8	0.57	0.63	0.57	0.63	C331
SP06-060045471M	470	1.80	2.0	0.50	0.56	0.42	0.48	C471
SP06-060045681M	680	2.50	1.7	0.42	0.46	0.33	0.38	C681
SP06-060045102M	1000	4.50	0.5	0.30	0.35	0.30	0.35	C102
SP06-060045152M	1500	6.50	0.8	0.24	0.27	0.21	0.24	C152

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40℃.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω)±30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP06-080040R82N	0.82	0.008	94	13.8	16.0	6.30	6.90	CR82
SP06-0800401R0N	1.0	0.008	89	9.85	14.0	6.30	6.90	C1R0
SP06-0800401R2N	1.2	0.010	59	10.0	14.0	5.65	6.20	C1R2
SP06-0800401R5N	1.5	0.010	67	8.15	11.0	5.65	6.20	C1R5
SP06-0800402R2N	2.2	0.012	41	7.10	8.00	5.15	5.60	C2R2
SP06-0800403R3N	3.3	0.017	27	6.50	7.00	4.40	4.80	C3R3
SP06-0800403R6N	3.6	0.017	30	7.52	8.50	4.35	4.80	C3R6
SP06-0800403R9N	3.9	0.017	26	5.75	6.50	4.35	4.80	C3R9
SP06-0800404R7N	4.7	0.019	24	5.90	6.50	4.10	4.50	C4R7
SP06-0800405R6N	5.6	0.021	24	6.00	6.90	3.85	4.20	C5R6
SP06-0800406R8M	6.8	0.024	20	4.55	5.20	3.60	4.00	C6R8
SP06-0800408R2M	8.2	0.026	17	4.20	4.80	3.45	3.80	C8R2
SP06-080040100M	10	0.029	15	3.60	4.10	3.30	3.60	C100
SP06-080040120M	12	0.041	13	3.50	4.00	2.80	3.00	C120
SP06-080040150M	15	0.047	12	2.95	3.40	2.60	2.80	C150
SP06-080040180M	18	0.053	11	2.70	3.10	2.40	2.60	C180
SP06-080040220M	22	0.069	9.5	2.40	2.70	2.10	2.30	C220
SP06-080040270M	27	0.078	9.2	2.15	2.50	2.00	2.20	C270
SP06-080040330M	33	0.097	7.8	2.05	2.40	1.80	2.00	C330
SP06-080040390M	39	0.107	7.8	1.95	2.20	1.70	1.90	C390
SP06-080040470M	47	0.136	6.4	1.75	2.00	1.55	1.70	C470
SP06-080040510M	51	0.142	6.4	1.70	1.90	1.50	1.60	C510
SP06-080040560M	56	0.148	6.4	1.55	1.70	1.45	1.60	C560
SP06-080040620M	62	0.182	6.4	1.50	1.60	1.30	1.40	C620
SP06-080040680M	68	0.196	4.9	1.45	1.60	1.25	1.40	C680
SP06-080040750M	75	0.211	4.9	1.35	1.50	1.20	1.30	C750
SP06-080040820M	82	0.225	5.9	1.30	1.40	1.15	1.20	C820
SP06-080040101M	100	0.290	4.2	1.15	1.30	1.00	1.10	C101
SP06-080040121M	120	0.334	3.5	1.05	1.10	0.95	1.00	C121
SP06-080040151M	150	0.410	3.5	1.10	1.20	0.85	0.94	C151
SP06-080040181M	180	0.520	3.5	0.95	1.15	0.83	0.92	C151
SP06-080040221M	220	0.599	3.5	0.85	0.94	0.80	0.88	C221
SP06-080040331M	330	0.889	2.8	0.68	0.75	0.64	0.70	C331
SP06-080040471M	470	1.26	2.1	0.60	0.70	0.50	0.60	C471
SP06-080040681M	680	2.04	1.7	0.50	0.60	0.45	0.50	C681
SP06-080040102M	1000	2.80	1.4	0.40	0.50	0.35	0.40	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25℃ ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40℃.