

Application Guides

Power Inductors

Type	L	W	H	Inductance(H)								DCR	Isat	Irms	Magnetic circuit	Shape	Page number
	mm	mm	mm	1n	10n	0.1u	1u	10u	100u	1m	10m	(Ω)Max.	(A)Typ.	(A)Typ.			
	inches	inches	inches														
SP16-2010A	2.0 0.079	1.6 0.063	1.0 0.04			—						0.024 - 0.197	4.8 - 1.9	4.0 - 1.6		SMT	16
SP16-2010B	2.0 0.079	1.6 0.063	1.0 0.04			—						0.021 - 0.163	6.0 - 1.9	4.7 - 1.8		SMT	16
SP16-2012A	2.0 0.079	1.6 0.063	1.2 0.048			—						0.021 - 0.186	5.3 - 2.0	4.5 - 1.5		SMT	16
SP16-2012B	2.0 0.079	1.6 0.063	1.2 0.048			—						0.019 - 0.144	6.5 - 2.0	5.2 - 1.8		SMT	16
SP16-2510A	2.5 0.099	2.0 0.079	1.0 0.04			—						0.018 - 0.121	6.6 - 2.4	5.8 - 1.8		SMT	16
SP16-2510B	2.5 0.099	2.0 0.079	1.0 0.04			—						0.017 - 0.105	8.5 - 2.6	6.5 - 2.0		SMT	16
SP16-2512A	2.5 0.099	2.0 0.079	1.2 0.048			—						0.015 - 0.105	8.5 - 2.5	7.3 - 2.3		SMT	16
SP16-2512B	2.5 0.099	2.0 0.079	1.2 0.048			—						0.013 - 0.09	8.5 - 2.7	10.0 - 2.4		SMT	16
SP06-030012	3.0 0.118	3.0 0.118	1.2 0.048			—						0.017 - 2.86	6.0 - 0.23	3.3 - 0.29		SMT	6
SP07-030012	3.0 0.118	3.0 0.118	1.2 0.048			—						0.064 - 0.395	4.1 - 1.45	2.9 - 1.15		SMT	7
SP06-030015	3.0 0.118	3.0 0.118	1.5 0.059			—						0.03 - 3.8	4.2 - 0.22	2.8 - 0.23		SMT	6
SP15-037012	3.4 0.134	3.0 0.119	1.2 0.048			—						0.055 - 0.36	17.0 - 1.5	10.0 - 1.0		SMT	15
SP15-037020	3.4 0.134	3.0 0.119	2.0 0.079			—						0.010 - 0.158	16.0 - 3.3	10.0 - 2.4		SMT	15
SP06-040018	4.0 0.158	4.0 0.158	1.8 0.071			—						0.014 - 4.0	5.2 - 0.3	4.5 - 0.27		SMT	6
SP06-040020	4.0 0.158	4.0 0.158	2.0 0.079			—						0.011 - 1.55	12.5 - 0.53	5.2 - 0.43		SMT	6
SP07-040020	4.0 0.158	4.0 0.158	2.0 0.079			—						0.011 - 0.18	22.0 - 3.5	9.5 - 2.35		SMT	7
SP06-040026	4.0 0.158	4.0 0.158	2.6 0.103			—						0.024 - 0.3	3.8 - 0.55	3.3 - 0.9		SMT	6
SP06-040030	4.0 0.158	4.0 0.158	3.0 0.118			—						0.010 - 7.58	8.0 - 0.23	5.1 - 0.19		SMT	6
SP15-047012	4.4 0.174	4.0 0.158	1.2 0.048			—						0.015 - 0.111	14.0 - 4.5	10.0 - 2.8		SMT	15
SP15-047020	4.4 0.174	4.0 0.158	2.0 0.079			—						0.008 - 0.46	20.0 - 1.8	14.0 - 1.2		SMT	15
SP06-050020	5.0 0.197	5.0 0.197	2.0 0.079			—						0.013 - 2.0	6.7 - 0.33	5.0 - 0.45		SMT	6
SP06-050040	5.0 0.197	5.0 0.197	4.0 0.158			—						0.012 - 6.0	8.0 - 0.25	5.0 - 0.23		SMT	6

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Type	L	W	H	Inductance(H)								DCR	Isat	Irms	Magnetic circuit	Shape	Page number
	mm	mm	mm	1 n	10 n	0.1 u	1 u	10 u	100 u	1 m	10 m	(Ω)Max.	(A)Typ.	(A)Typ.			
	inches	inches	inches														
SP14-057018	5.4 0.213	5.2 0.205	1.8 0.071			—						0.009 - 0.155	15.5 - 3.0	10.5 - 2.5		SMT	14
SP14-057030	5.4 0.213	5.2 0.205	3.0 0.118			—						0.003 - 0.125	33.0 - 3.5	25.0 - 3.2		SMT	14
SP06-060020	6.0 0.236	6.0 0.236	2.0 0.079			—						0.017 - 0.43	7.8 - 0.9	4.8 - 0.9		SMT	6
SP06-060028	6.0 0.236	6.0 0.236	2.8 0.110			—						0.012 - 5.8	9.0 - 0.22	6.0 - 0.26		SMT	6
SP06-060045	6.0 0.236	6.0 0.236	4.5 0.177			—						0.006 - 6.5	16.5 - 0.27	6.6 - 0.24		SMT	6
DP02-0609	6.0 0.237	6.0 0.237	8.5 0.335			—						0.02 - 5.626	6.0 - 0.35	5.7 - 0.35		DIP	23
SP10-060028	6.2 0.244	6.2 0.244	3.0 0.118			—						0.036 - 0.62	1.6 - 0.42	2.5 - 0.64		SMT	10
SP01-0603	6.2 0.244	6.3 0.248	3.0 0.118			—						0.018 - 0.52	2.6 - 0.4	2.6 - 0.4		SMT	1
SP10-060045	6.2 0.244	6.2 0.244	4.8 0.189			—						0.016 - 0.082	4.0 - 1.1	4.1 - 1.8		SMT	10
SP14-070024	7.0 0.276	6.6 0.260	2.4 0.095			—						0.003 - 0.24	34.0 - 2.5	21.0 - 2.0		SMT	14
SP14-070030	7.0 0.276	6.6 0.260	3.0 0.119			—						0.003 - 0.31	34.0 - 2.5	24.0 - 2.0		SMT	14
SP14-070040	7.0 0.276	6.6 0.260	4.0 0.158			—						0.002 - 0.125	35.0 - 4.0	33.0 - 3.5		SMT	14
SP10-070032	7.2 0.284	7.2 0.284	3.4 0.134			—						0.023 - 4.78	1.9 - 0.13	1.9 - 0.13		SMT	10
SP10-070045	7.2 0.284	7.2 0.284	4.8 0.189			—						0.02 - 2.28	2.5 - 0.14	2.3 - 0.25		SMT	10
SP04-0703	7.3 0.288	7.3 0.288	3.55 0.140			—						0.013 - 0.564	7.97 - 0.25	5.28 - 0.26		SMT	4
SP04-0704	7.3 0.288	7.3 0.288	4.35 0.172			—						0.013 - 0.506	10.2 - 0.31	5.39 - 0.27		SMT	4
DP02-0807	7.5 0.296	7.5 0.296	7.0 0.276			—						0.016 - 3.4	5.5 - 0.34	5.8 - 0.4		DIP	23
SP09-8028	8.0 0.315	8.0 0.315	3.1 0.122			—						0.022 - 0.112	5.0 - 0.55	4.8 - 0.5		SMT	9
SPA02-8028 (AEC-Q200)	8.0 0.315	8.0 0.315	3.1 0.122			—						0.022 - 0.112	5.0 - 0.55	4.8 - 0.5		SMT	19
SP09-8038	8.0 0.315	8.0 0.315	4.0 0.157			—						0.016 - 0.41	7.0 - 1.05	6.8 - 0.88		SMT	9
SPA02-8038 (AEC-Q200)	8.0 0.315	8.0 0.315	4.0 0.157			—						0.016 - 0.41	7.0 - 1.05	6.8 - 0.88		SMT	19
SP06-080040	8.0 0.315	8.0 0.315	4.2 0.166			—						0.008 - 2.8	16.0 - 0.5	6.9 - 0.4		SMT	6

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Type	L	W	H	Inductance(H)								DCR	Isat	Irms	Magnetic circuit	Shape	Page number
	mm	mm	mm	1n	10n	0.1u	1u	10u	100u	1m	10m	(Ω)Max.	(A)Typ.	(A)Typ.			
	inches	inches	inches														
SP09-8043	8.0 0.315	8.0 0.315	4.5 0.177				—					0.012 - 0.36	8.0 - 1.3	6.2 - 0.8		SMT	9
SPA02-8043 (AEC-Q200)	8.0 0.315	8.0 0.315	4.5 0.177				—					0.012 - 0.36	8.0 - 1.3	6.2 - 0.8		SMT	19
SP09-8058	8.0 0.315	8.0 0.315	6.0 0.236				—					0.015 - 0.175	4.7 - 0.8	6.9 - 1.4		SMT	9
SPA02-8058 (AEC-Q200)	8.0 0.315	8.0 0.315	6.0 0.236				—					0.015 - 0.175	4.7 - 0.8	6.9 - 1.4		SMT	19
DP02-0908	9.0 0.355	9.0 0.355	8.0 0.315				—					0.018 - 3.80	12.3 - 0.72	5.5 - 0.38		DIP	23
DP02-0910	9.0 0.355	9.0 0.355	10.0 0.394				—					0.013 - 2.05	12.0 - 0.72	8.1 - 0.6		DIP	23
SP02-1108	9.2 0.362	10.8 0.425	8.0 0.315			—						0.0007 - 0.008	33.5 - 6.8	47.0 - 9.6		SMT	2
DP02-1014	9.5 0.374	9.5 0.374	13.5 0.532				—					0.009 - 1.469	11.7 - 0.7	8.8 - 0.74		DIP	23
SP03-1006	9.8 0.386	9.8 0.386	5.8 0.228				—					0.018 - 7.6	10.0 - 0.36	6.4 - 0.16		SMT	3
SP01-1003	10.3 0.406	10.5 0.413	3.0 0.118				—					0.006 - 0.871	9.0 - 0.7	6.5 - 0.51		SMT	1
SPA01-1003 (AEC-Q200)	10.3 0.406	10.5 0.413	3.0 0.118				—					0.006 - 0.871	9.0 - 0.7	6.5 - 0.51		SMT	18
SP01-1004	10.3 0.406	10.5 0.413	4.0 0.158				—					0.006 - 0.285	12.1 - 0.46	10.0 - 0.45		SMT	1
SPA01-1004 (AEC-Q200)	10.3 0.406	10.5 0.413	4.0 0.158				—					0.006 - 0.285	12.1 - 0.46	10.0 - 0.45		SMT	18
SP01-1005	10.3 0.406	10.5 0.413	5.0 0.197				—					0.006 - 0.815	13.5 - 0.75	9.5 - 0.73		SMT	1
SPA01-1005 (AEC-Q200)	10.3 0.406	10.5 0.413	5.0 0.197				—					0.006 - 0.815	13.5 - 0.75	9.5 - 0.73		SMT	18
SP10-101045	10.4 0.410	10.4 0.410	4.8 0.189				—					0.016 - 3.4	4.90 - 0.22	3.7 - 0.26		SMT	10
SP10-101065	10.4 0.410	10.4 0.410	6.8 0.268				—					0.007 - 0.045	10.7 - 2.7	6.8 - 2.4		SMT	10
DP02-1211	11.5 0.453	11.5 0.453	11.0 0.433				—					0.009 - 1.525	14.0 - 0.84	9.7 - 0.72		DIP	23
SP05-1206	12.3 0.484	12.3 0.484	6.0 0.236				—					0.003 - 0.979	23.6 - 0.069	15.0 - 0.06		SMT	5
SPA03-1206 (AEC-Q200)	12.3 0.484	12.3 0.484	6.0 0.236				—					0.003 - 0.979	23.6 - 0.069	15.0 - 0.06		SMT	20
SP05-1208	12.3 0.484	12.3 0.484	8.0 0.315				—					0.004 - 0.216	40.0 - 1.14	15.5 - 0.61		SMT	5
SPA03-1208 (AEC-Q200)	12.3 0.484	12.3 0.484	8.0 0.315				—					0.004 - 0.216	40.0 - 1.14	15.5 - 0.61		SMT	20

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Power Inductors

Type	L	W	H	Inductance(H)								DCR	Isat	Irms	Magnetic circuit	Shape	Page number
	mm	mm	mm	1n	10n	0.1u	1u	10u	100u	1m	10m	(Ω)Max.	(A)Typ.	(A)Typ.			
	inches	inches	inches														
SP10-125065	12.8 0.504	12.8 0.504	6.85 0.270				————					0.012 - 0.273	10.0 - 1.0	6.2 - 1.2	II	SMT	10
SP08-1304	12.95 0.510	9.4 0.370	3.5 0.140				————					0.110 - 8.4	2.4 - 0.1	2.0 - 0.05	I	SMT	8
SP11-130051	12.95 0.504	9.4 0.504	5.08 0.270				————					0.021 - 0.472	5.6 - 1.0	5.0 - 0.8	II	SMT	11
SP08-1305	12.95 0.510	9.4 0.370	5.21 0.210				————					0.009 - 3.0	9.0 - 0.3	6.8 - 0.3	I	SMT	8
SP08-1305	12.95 0.510	9.4 0.370	11.43 0.450				————					0.04 - 2.0	8.0 - 0.8	3.5 - 0.1	I	SMT	8
SP14-138040	13.3 0.524	12.6 0.496	4.0 0.158				—					0.004 - 0.015	47.0 - 18.0	28.0 - 13.0	II	SMT	14
SP14-138050	13.3 0.524	12.6 0.496	5.0 0.197				————					0.002 - 0.13	46.5 - 5.0	33.0 - 3.0	II	SMT	14
SP14-138060	13.3 0.524	12.6 0.496	6.0 0.237				————					0.009 - 0.35	24.0 - 2.7	20.0 - 2.0	II	SMT	14
DP03-035130	13.5 0.532	3.8 0.150	3.8 0.150				▪					0.009	5.0	5.0	I	DIP	24
DP03-040130	13.5 0.532	4.3 0.170	4.3 0.170				▪					0.009	6.5	6.5	I	DIP	24
DP03-045130	13.5 0.532	5.0 0.197	5.0 0.197				▪					0.010	9.0	9.0	I	DIP	24
DP03-050130	13.5 0.532	5.5 0.217	5.5 0.217				▪					0.011	10.0	10.0	I	DIP	24
SP03-1307	13.5 0.531	13.5 0.531	7.3 0.288				————					0.005 - 1.6	20.0 - 1.0	9.50 - 0.65	I	SMT	3
SP12-1508	15.0 0.590	15.0 0.590	8.6 0.339				————					0.014 - 0.99	14.7 - 1.4	7.40 - 0.86	II	SMT	12
SPA04-1508 (AEC-Q200)	15.0 0.590	15.0 0.590	8.6 0.339				————					0.014 - 0.99	14.7 - 1.4	7.40 - 0.86	II	SMT	21
SP12-1514	15.0 0.590	15.0 0.590	14.5 0.570				————					0.007 - 0.625	30.5 - 1.63	7.80 - 0.77	II	SMT	12
SPA04-1514 (AEC-Q200)	15.0 0.590	15.0 0.590	14.5 0.570				————					0.007 - 0.625	30.5 - 1.63	7.80 - 0.77	II	SMT	21
DP03-060150	15.5 0.610	6.5 0.256	6.5 0.256				▪					0.009	13.0	13.0	I	DIP	24
DP03-040160	16.5 0.650	4.3 0.170	4.3 0.170				▪					0.013	4.7	4.7	I	DIP	24
DP03-045160	16.5 0.650	5.0 0.197	5.0 0.197				▪					0.014	6.5	6.5	I	DIP	24
DP03-050160	16.5 0.650	5.5 0.217	5.5 0.217				▪					0.015	8.0	8.0	I	DIP	24
DP01-1721	16.8 0.662	16.8 0.662	21.3 0.839				————					0.008 - 0.471	28.0 - 3.7	9.0 - 0.8	I	DIP	22

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Type	L	W	H	Inductance(H)								DCR	Isat	Irms	Magnetic circuit	Shape	Page number
	mm	mm	mm	1n	10n	0.1u	1u	10u	100u	1m	10m	(Ω)Max.	(A)Typ.	(A)Typ.			
	inches	inches	inches														
DP03-035170	17.5 0.690	3.8 0.150	3.8 0.150				■					0.012	3.5	3.5	I	DIP	24
DP03-045180	18.5 0.729	5.0 0.197	5.0 0.197				■					0.017	5.0	5.0	I	DIP	24
DP03-060180	18.5 0.729	6.5 0.256	6.5 0.256				■					0.010	10.0	10.0	I	DIP	24
SP08-1907	18.54 0.730	15.24 0.600	7.11 0.280				—					0.009 - 1.80	20.0 - 1.0	8.6 - 0.56	I	SMT	8
SP11-185076	18.54 0.730	15.24 0.600	7.62 0.300				—					0.040 - 2.01	8.00 - 0.8	3.9 - 0.53	II	SMT	11
DP03-035190	19.5 0.770	3.8 0.150	3.8 0.150				■					0.014	2.5	2.5	I	DIP	24
DP03-040190	19.5 0.770	4.3 0.170	4.3 0.170				■					0.014	3.7	3.7	I	DIP	24
DP03-050190	19.5 0.770	5.5 0.217	5.5 0.217				■					0.017	6.5	6.5	I	DIP	24
DP03-060200	20.5 0.807	6.5 0.256	6.5 0.256				■					0.012	8.2	8.2	I	DIP	24
DP03-077200	20.5 0.807	8.2 0.323	8.2 0.323				■					0.006	12.0	12.0	I	DIP	24
DP01-2122	21.0 0.827	21.0 0.827	21.5 0.847				—					0.007 - 1.067	33.0 - 2.2	11.4 - 0.8	I	DIP	22
DP03-085250	25.5 1.003	9.0 0.354	9.0 0.354				■					0.010	11.0	11.0	I	DIP	24
DP03-097250	25.5 1.003	10.2 0.402	10.2 0.402				■					0.002	24.0	24.0	I	DIP	24
DP01-2627	26.0 1.024	26.0 1.024	27.0 1.063				—					0.018 - 1.429	25.0 - 2.5	9.0 - 1.0	I	DIP	22
SP13-2816A	27.9 1.100	27.9 1.100	15.9 0.626				—					0.0017	100 - 2.0	30.0	II	SMT	13
SP13-2816B	27.9 1.100	27.9 1.100	15.9 0.626				—					0.0021	100 - 4.0	30.0	II	SMT	13
SP13-2820A	27.9 1.100	27.9 1.100	20.0 0.788				—					0.003 - 0.088	89.0 - 4.5	31.0 - 4.5	II	SMT	13
DP03-125300	30.5 12.0	13.0 0.512	13.0 0.512				■					0.003	25.0	25.0	I	DIP	24
DP01-4128	40.5 1.600	40.5 1.600	28.0 1.103				—					0.015 - 3.004	40.0 - 1.9	14.4 - 1.3	I	DIP	22
DP01-4138	40.5 1.600	40.5 1.600	38.0 1.500				—					0.034 - 1.750	21.5 - 2.6	13.5 - 1.8	I	DIP	22
DP01-5038	50.0 1.970	50.0 1.970	38.0 1.500				—					0.077 - 5.849	14.0 - 1.6	11.4 - 1.4	I	DIP	22

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Coupled Inductors

Type	L	W	H	Inductance(H)								DCR	Isat	Irms	Magnetic circuit	Shape	Page number
	mm	mm	mm	1	10	0.1	1	10	100	1	10	(Ω)Max.	(A)Typ.	(A)Typ.			
	inches	inches	inches	n	n	u	u	u	u	m	m						
SC01-1206	12.2 0.480	12.2 0.480	6.0 0.237					—				0.036 - 3.06	10.3 - 0.69	4.47 - 0.49		SMT	17
SC01-1208	12.2 0.480	12.2 0.480	7.8 0.307					—				0.038 - 2.83	14.9 - 1.10	4.47 - 0.52		SMT	17
SC01-1514	15.5 0.610	15.5 0.610	14.2 0.560					—				0.012 - 1.25	30.5 - 1.63	7.80 - 0.77		SMT	17

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Common Mode Chokes

Type	L	W	H	Inductance(H)								DCR	Rated Current	Hi-Pot	Magnetic circuit	Shape	Page number
	mm	mm	mm	1	10	0.1	1	10	100	1	10	(Ω)Max.	(A)Max.	(KV)			
	inches	inches	inches	n	n	u	u	u	u	m	m						
SCM01-1005	9.5 0.375	5.65 0.223	4.9 0.193					—				0.12 - 0.70	0.70 - 0.20	0.25 - 0.75		SMT	25
SCM02-2010	19.6 0.770	17.0 0.670	9.91 0.390						—			0.021 - 0.08	5.60 - 2.80	1.0		SMT	26
DCM01-1921	19.0 0.750	17.0 0.670	21.0 0.827							—		0.076 - 1.46	2.30 - 0.50	2.0		DIP	27
DCM01-2328	23.0 0.910	19.5 0.770	28.0 1.103							—		0.103 - 1.10	2.20 - 0.60	2.0		DIP	27
DCM02-2219	22.0 0.870	22.0 0.870	18.5 0.730							—		0.105 - 2.87	2.00 - 0.30	2.0		DIP	28
DCM02-2622	26.0 1.024	26.0 1.024	21.5 0.847							—		0.087 - 2.015	2.40 - 0.30	2.0		DIP	28
DCM03-2417	23.62 0.930	22.35 0.880	17.02 0.670							—		0.016 - 9.69	3.50 - 0.13	2.0		DIP	29
DCM04-1005	12.5 0.493	12.5 0.493	8.0 0.315					—				0.008 - 0.130	1.70 - 0.45	0.80 - 2.0		DIP	30

Application Guides

Transformers

Type	L	W	H	Inductance(H)								Windings	Turns Ratio	Hi-Pot	Magnetic circuit	Shape	Page number
	mm	mm	mm	1	10	0.1	1	10	100	1	10			(KV)			
	inches	inches	inches	n	n	u	u	u	u	m	m						
Design as customer's requested specifications														DIP	31		

SP01 Series Shielded Power Inductors

Features

- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Other various electronic appliances

Environmental Data

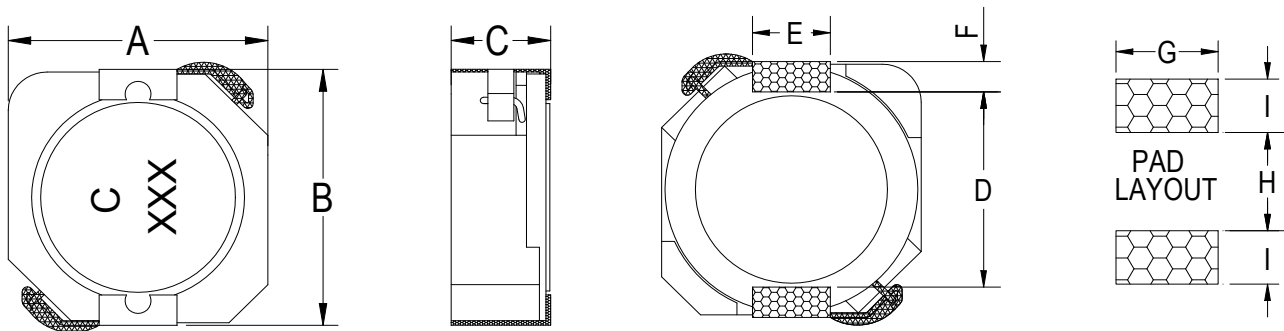
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

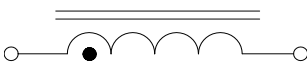
- Supplied in tape and reel packaging, 2500pcs(SP01-0603), 1200pcs(SP01-1003), 1000pcs(SP01-1004), 750pcs(SP01-1005), per 13-inch reel

Mechanical Dimension (Unit:mm/inches)



Type	A Max.	B Max.	C Max.	D Nom.	E Nom.	F Nom.	G Nom.	H Nom.	I Nom.
SP01-0603	6.2/.244	6.3/.248	3.0/.118	4.7/.185	2.0/.079	0.6/.024	2.6/.102	4.6/.181	1.0/.040
SP01-1003	10.3/.406	10.5/.413	3.0/.118	7.9/.311	3.0/.118	1.2/.047	3.6/.142	7.3/.287	1.7/.067
SP01-1004	10.3/.406	10.5/.413	4.0/.158	7.9/.311	3.0/.118	1.2/.047	3.6/.142	7.3/.287	1.7/.067
SP01-1005	10.3/.406	10.5/.413	5.0/.197	7.9/.311	3.0/.118	1.2/.047	3.6/.142	7.3/.287	1.7/.067

Electrical Schematic



Part Number Description

SP01 - 0603 2R5 N

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP01 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Test Freq. (KHz)	DC Resistance (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP01-06032R5N	2.5	100	17.6	2.60	2.60	C2R5
SP01-06033R3N	3.3	100	20.3	2.30	2.30	C3R3
SP01-06034R0N	4.0	100	27.0	2.10	2.10	C4R0
SP01-06035R0N	5.0	100	31.1	1.85	1.85	C5R0
SP01-06036R0N	6.0	100	41.9	1.70	1.70	C6R0
SP01-06038R0N	8.0	100	49.9	1.50	1.50	C8R0
SP01-0603100N	10	100	54.0	1.30	1.30	C100
SP01-0603120M	12	100	71.6	1.20	1.20	C120
SP01-0603150M	15	100	82.4	1.10	1.10	C150
SP01-0603180M	18	100	101.5	1.05	1.05	C180
SP01-0603220M	22	100	119.0	0.95	0.95	C220
SP01-0603270M	27	100	146.0	0.85	0.85	C270
SP01-0603330M	33	100	182.5	0.76	0.76	C330
SP01-0603390M	39	100	209.5	0.68	0.68	C390
SP01-0603470M	47	100	229.5	0.60	0.60	C470
SP01-0603560M	56	100	305.0	0.55	0.55	C560
SP01-0603680M	68	100	351.0	0.48	0.48	C680
SP01-0603820M	82	100	418.5	0.45	0.45	C820
SP01-0603101M	100	100	520.0	0.40	0.40	C101

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP01 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Test Freq. (KHz)	DC Resistance (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP01-1003R80N	0.8	100	5.7	9.00	6.50	CR80
SP01-10031R5N	1.5	100	11.0	7.00	4.20	C1R5
SP01-10032R2N	2.2	100	16.9	5.80	4.05	C2R2
SP01-10033R3N	3.3	100	21.0	4.60	3.80	C3R3
SP01-10034R7N	4.7	100	30.0	4.00	3.30	C4R7
SP01-10036R8N	6.8	100	35.0	3.20	3.15	C6R8
SP01-10038R2N	8.2	100	50.0	3.00	2.50	C8R2
SP01-1003100N	10	100	58.1	2.70	2.40	C100
SP01-1003120M	12	100	72.1	2.40	2.10	C120
SP01-1003150M	15	100	86.5	2.20	2.05	C150
SP01-1003180M	18	100	116.1	2.00	1.50	C180
SP01-1003220M	22	100	143.0	1.80	1.20	C220
SP01-1003270M	27	100	175.9	1.65	1.15	C270
SP01-1003330M	33	100	202.0	1.48	1.10	C330
SP01-1003390M	39	100	268.9	1.35	1.00	C390
SP01-1003470M	47	100	299.0	1.20	0.90	C470
SP01-1003560M	56	100	325.0	1.15	0.78	C560
SP01-1003680M	68	100	429.0	1.05	0.68	C680
SP01-1003820M	82	100	494.0	0.95	0.63	C820
SP01-1003101M	100	100	683.0	0.85	0.56	C101
SP01-1003121K	120	100	754.0	0.76	0.53	C121
SP01-1003151K	150	100	871.0	0.70	0.51	C151

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP01 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Test Freq. (KHz)	DC Resistance (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	SRF (MHz)Typ.	Marking
SP01-10041R0N	1.0	100	6.0	12.1	10.0	138	C1R0
SP01-10041R5N	1.5	100	8.1	11.06	7.85	81	C1R5
SP01-10042R5N	2.5	100	10	9.26	6.65	61	C2R5
SP01-10043R8N	3.8	100	13	7.64	6.05	45	C3R8
SP01-10045R2N	5.2	100	22	6.14	5.10	37	C5R2
SP01-10047R0N	7.0	100	27	5.60	4.35	33	C7R0
SP01-1004100N	10	100	35	4.52	4.05	29	C100
SP01-1004120M	12	100	41	4.04	4.00	25	C120
SP01-1004150M	15	100	50	3.86	3.80	21	C150
SP01-1004180M	18	100	65	3.52	3.35	18	C180
SP01-1004220M	22	100	73	3.30	2.85	15	C220
SP01-1004270M	27	100	89	2.84	2.35	15	C270
SP01-1004330M	33	100	93	2.62	2.30	13	C330
SP01-100390M	39	100	112	2.34	2.25	12	C390
SP01-1004470M	47	100	128	2.22	2.20	11	C470
SP01-1004560M	56	100	180	2.04	1.85	11	C560
SP01-1004680M	68	100	213	1.82	1.75	10	C680
SP01-1004820M	82	100	261	1.60	1.50	8	C820
SP01-1004101M	100	100	304	1.46	1.45	6	C101
SP01-1004121K	120	100	380	1.34	1.25	6	C121
SP01-1004151K	150	100	506	1.22	1.20	6	C151
SP01-1004181K	180	100	582	1.16	0.98	5	C181
SP01-1004221K	220	100	756	0.99	0.97	5	C221
SP01-1004271K	270	100	926	0.91	0.86	4	C271
SP01-1004331K	330	100	1090	0.82	0.69	4	C331
SP01-1004391K	390	100	1141	0.74	0.65	4	C391
SP01-1004471K	470	100	1243	0.70	0.63	3	C471
SP01-1004561K	560	100	1696	0.56	0.59	3	C561
SP01-1004681K	680	100	1926	0.52	0.50	3	C681
SP01-1004821K	820	100	2596	0.49	0.47	3	C821
SP01-1004102K	1000	100	2853	0.46	0.45	3	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP01 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Test Freq. (KHz)	DC Resistance (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	SRF (MHz)Typ.	Marking
SP01-1005R68N	0.68	100	5.5	13.5	9.50	110	CR68
SP01-10051R2N	1.2	100	7.0	10.5	8.30	85	C1R2
SP01-10052R2N	2.2	100	9.0	8.20	7.20	53	C2R2
SP01-10053R3N	3.3	100	11	7.80	6.50	40	C3R3
SP01-10054R2N	4.2	100	14	6.40	6.10	29	C4R2
SP01-10056R8N	6.8	100	19	5.40	5.40	27	C6R8
SP01-10058R2N	8.2	100	22	4.85	5.00	21	C8R2
SP01-1005100N	10	100	31	4.45	4.50	16.5	C100
SP01-1005120M	12	100	35	4.00	3.80	15	C120
SP01-1005150M	15	100	47	3.60	3.40	14	C150
SP01-1005180M	18	100	51	3.20	3.10	11.0	C180
SP01-1005220M	22	100	62	2.95	2.90	10.5	C220
SP01-1005270M	27	100	77	2.70	2.60	10.0	C270
SP01-1005330M	33	100	93	2.40	2.50	9.0	C330
SP01-1005390M	39	100	106	2.30	2.25	6.8	C390
SP01-1005470M	47	100	127	2.00	2.00	5.9	C470
SP01-1005560M	56	100	160	1.90	1.90	5.5	C560
SP01-1005680M	68	100	208	1.65	1.60	5.0	C680
SP01-1005820M	82	100	230	1.50	1.45	4.5	C820
SP01-1005101M	100	100	255	1.35	1.35	4.2	C101
SP01-1005121K	120	100	305	1.28	1.18	3.8	C121
SP01-1005151K	150	100	370	1.12	1.10	3.6	C151
SP01-1005181K	180	100	420	1.04	1.00	3.4	C181
SP01-1005221K	220	100	500	0.94	0.94	3.0	C221
SP01-1005271K	270	100	675	0.84	0.80	2.4	C271
SP01-1005331K	330	100	815	0.75	0.73	2.0	C331

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP02 Series Shielded Power Inductors

Features

- High current output chokes and lower core loss
- Ideal inductors for buck converter
- Suitable for high density board design
- No thermal aging

Applications

- Power supplies
- VRM for server
- DC-DC converters
- Industrial electronics, etc.

Environmental Data

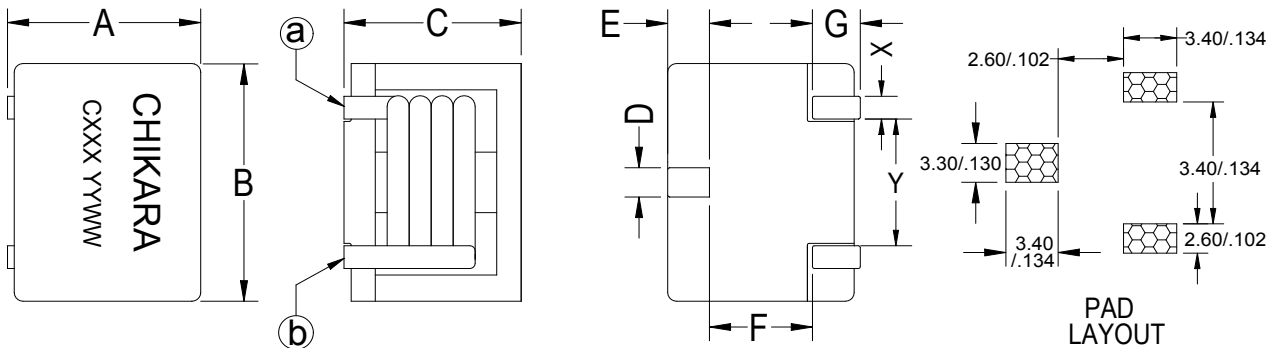
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -55°C to +135°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

- Supplied in tape and reel packaging, 500pcs, per 13-inch reel

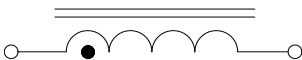
Mechanical Dimension (Unit: mm/inches)



X&Y See table

Type	A	B	C	D	E	F	G
	Max.	Max.	Max.				
SP02-1108	9.2	10.8	8.0	2.5±0.2	2.4±0.2	3.5±0.4	2.3±0.4
	0.362	0.425	0.315	0.098±0.08	0.094±0.08	0.138±0.016	0.091±0.016

Electrical Schematic



Part Number Description

SP02 - 1108 R30 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP02 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance (uH)	Test Freq. (KHz)	DC Resistance (mΩ)±6%	Isat(A) Typ.		Irms (A)Max.	Dimension	
				at25°C	at100°C		X(±0.2)	Y(±0.4)
SP02-1108R30M	0.30	100	0.68	42.5	33.5	47.0	1.8/.070	4.5/.177
SP02-1108R40M	0.40	100	0.91	43.0	34.0	38.0	1.8/.070	4.5/.177
SP02-1108R45M	0.45	100	0.91	41.0	31.7	38.0	1.8/.070	4.5/.177
SP02-1108R60M	0.60	100	0.91	32.0	25.5	38.0	1.8/.070	4.5/.177
SP02-11081R0M	1.00	100	1.76	26.0	20.3	26.1	1.8/.070	4.5/.177
SP02-11082R0M	2.00	100	3.30	15.9	12.7	16.4	1.6/.063	4.8/.189
SP02-11083R0M	3.00	100	5.90	16.0	12.5	12.4	1.6/.063	4.8/.189
SP02-11084R7M	4.70	100	5.30	8.4	6.7	13.2	1.6/.063	4.8/.189
SP02-11086R8M	6.80	100	7.70	8.5	6.8	9.6	1.6/.063	4.8/.189

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%
- DCR:The nominal DCR is measured from point"a" to point "b",as shown above on the mechanical drawing.
- Isat:DC current that will cause inductance to drops by 20% typical. (Ta=25°C)
- Irms:DC current for an approximate temperature rise of 40°C without core loss,derating is necessary for AC currents, PCB pad layout,trace thickness and width,air-flow and proximity of other heat generating components will affect the temperature rise it is recommended the part temperature not exceed 125°C under worst case operating conditions verified in the end application.

SP03 Series Unshielded Power Inductors

Features

- High energy storage and very low resistance
- Ideal inductors for DC-DC conversion
- Noise filtering and filter chokes
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- Industrial electronics, etc.
- DC-DC converters, etc.
- Buck, boost, forward, and resonant converters

Environmental Data

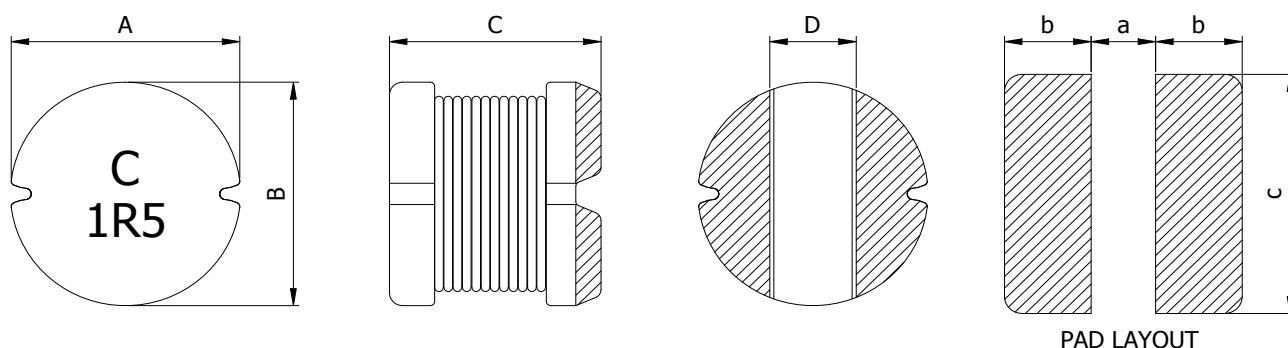
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

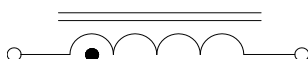
- Supplied in tape and reel packaging, 800pcs(SP03-1006), 400pcs(SP03-1307), per 13-inch reel

Mechanical Dimension (Unit:mm/inches)



Type	A Max.	B Max.	C Max.	D Nom.	a Nom.	b Nom.	c Nom.
SP03-1006	9.8	9.8	5.8	2.9	2.2	4.0	10.1
	0.386	0.386	0.228	0.114	0.087	0.158	0.40
SP03-1307	13.5	13.5	7.3	5.0	3.8	5.2	13.6
	0.531	0.531	0.288	0.197	0.15	0.205	0.536

Electrical Schematic



Part Number Description

SP03 - 1006 1R5 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP03 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Q Typ.	Test Freq. (MHz)	SRF (MHz)Typ.	DCR (Ω)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP03-10061R5M	1.5	35	7.96	105	0.018	10.0	6.40	C1R5
SP03-10062R2M	2.2	35	7.96	68	0.021	10.0	5.40	C2R2
SP03-10063R3M	3.3	34	7.96	55	0.024	10.0	5.00	C3R3
SP03-10063R9M	3.9	34	7.96	48	0.027	8.40	4.60	C3R9
SP03-10064R7M	4.7	33	7.96	40	0.036	7.30	4.00	C4R7
SP03-10065R6M	5.6	33	7.96	35	0.040	6.40	3.80	C5R6
SP03-10066R8M	6.8	33	7.96	32	0.044	5.90	3.40	C6R8
SP03-10068R2M	8.2	31	7.96	24	0.048	5.40	3.00	C8R2
SP03-1006100M	10	30	2.52	21	0.060	5.10	2.60	C100
SP03-1006120M	12	30	2.52	20	0.070	4.50	2.45	C120
SP03-1006150M	15	30	2.52	16	0.080	4.00	2.25	C150
SP03-1006180M	18	30	2.52	15	0.090	3.80	2.15	C180
SP03-1006220M	22	25	2.52	13	0.10	3.50	1.95	C220
SP03-1006270K	27	25	2.52	11	0.11	3.40	1.75	C270
SP03-1006330K	33	25	2.52	10	0.12	2.90	1.50	C330
SP03-1006390K	39	20	2.52	9.0	0.14	2.60	1.35	C390
SP03-1006470K	47	20	2.52	8.0	0.17	2.30	1.25	C470
SP03-1006560K	56	20	2.52	7.5	0.19	2.10	1.15	C560
SP03-1006680K	68	15	2.52	7.0	0.22	2.00	1.10	C680
SP03-1006820K	82	15	2.52	6.0	0.25	1.90	1.00	C820
SP03-1006101K	100	15	0.796	5.2	0.35	1.70	0.97	C101
SP03-1006121K	120	15	0.796	5.0	0.40	1.50	0.89	C121
SP03-1006151K	150	15	0.796	4.5	0.47	1.40	0.78	C151
SP03-1006181K	180	12	0.796	4.0	0.63	1.30	0.72	C181
SP03-1006221K	220	12	0.796	3.8	0.73	1.10	0.66	C221
SP03-1006271K	270	12	0.796	3.5	0.97	1.00	0.57	C271
SP03-1006331K	330	12	0.796	3.2	1.15	0.85	0.52	C331
SP03-1006391K	390	12	0.796	3.0	1.30	0.80	0.48	C391
SP03-1006471K	470	12	0.796	2.5	1.48	0.80	0.42	C471
SP03-1006561K	560	12	0.796	2.3	1.90	0.66	0.33	C561
SP03-1006681K	680	12	0.796	2.1	2.25	0.65	0.28	C681
SP03-1006821K	820	10	0.796	2.0	2.55	0.56	0.24	C821
SP03-1006102K	1000	30	0.252	1.9	3.10	0.53	0.23	C102
SP03-1006122K	1200	31	0.252	1.8	4.20	0.48	0.21	C122
SP03-1006152K	1500	31	0.252	1.7	5.00	0.45	0.19	C152
SP03-1006182K	1800	31	0.252	1.6	6.80	0.38	0.17	C182
SP03-1006222K	2200	31	0.252	1.5	7.60	0.36	0.16	C222

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

SP03 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Q Typ.	Test Freq. (MHz)	SRF (MHz)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP03-13071R5M	1.5	20	7.96	65	5.0	20.0	9.50	C1R5
SP03-13072R2M	2.2	22	7.96	50	6.0	18.0	9.00	C2R2
SP03-13072R7M	2.7	24	7.96	40	8.0	16.0	8.20	C2R7
SP03-13073R3M	3.3	26	7.96	38	8.7	15.0	7.50	C3R3
SP03-13074R7M	4.7	25	7.96	36	10	13.0	7.00	C4R7
SP03-13075R6M	5.6	24	7.96	28	15	11.0	6.50	C5R6
SP03-13076R8M	6.8	24	7.96	26	17	10.5	6.00	C6R8
SP03-13078R2M	8.2	24	7.96	24	19	9.8	5.80	C8R2
SP03-1307100M	10	22	2.52	22	21	9.2	5.60	C100
SP03-1307120M	12	25	2.52	20	30	8.0	4.80	C120
SP03-1307150M	15	28	2.52	17	34	7.5	4.50	C150
SP03-1307180M	18	28	2.52	16	36	7.0	4.20	C180
SP03-1307220M	22	40	2.52	15	47	6.5	3.60	C220
SP03-1307270M	27	35	2.52	11	60	5.5	3.30	C270
SP03-1307330K	33	35	2.52	10	65	5.0	3.10	C330
SP03-1307390K	39	28	2.52	9.0	75	4.6	2.90	C390
SP03-1307470K	47	24	2.52	7.5	82	4.2	2.70	C470
SP03-1307560K	56	22	2.52	7.2	95	3.8	2.50	C560
SP03-1307680K	68	24	2.52	7.0	120	3.5	2.30	C680
SP03-1307820K	82	18	2.52	6.0	140	3.2	2.10	C820
SP03-1307101K	100	25	0.796	5.8	180	3.0	1.90	C101
SP03-1307121K	120	20	0.796	5.5	210	2.8	1.80	C121
SP03-1307151K	150	20	0.796	4.5	250	2.6	1.60	C151
SP03-1307181K	180	18	0.796	4.0	280	2.3	1.50	C181
SP03-1307221K	220	15	0.796	3.8	360	2.1	1.30	C221
SP03-1307271K	270	15	0.796	3.5	410	1.8	1.20	C271
SP03-1307331K	330	15	0.796	3.2	520	1.6	1.10	C331
SP03-1307391K	390	12	0.796	2.5	600	1.5	1.00	C391
SP03-1307471K	470	12	0.796	2.2	720	1.4	0.90	C471
SP03-1307561K	560	10	0.796	2.0	880	1.3	0.85	C561
SP03-1307681K	680	10	0.796	1.6	1000	1.2	0.80	C681
SP03-1307821K	820	10	0.796	1.5	1300	1.1	0.75	C821
SP03-1307102K	1000	10	0.252	1.4	1600	1.0	0.65	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SP04 Series Shielded Power Inductors

Features

- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current
- Available on tape and reel for auto surface mounting



Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Buck, boost, forward, and resonant converters

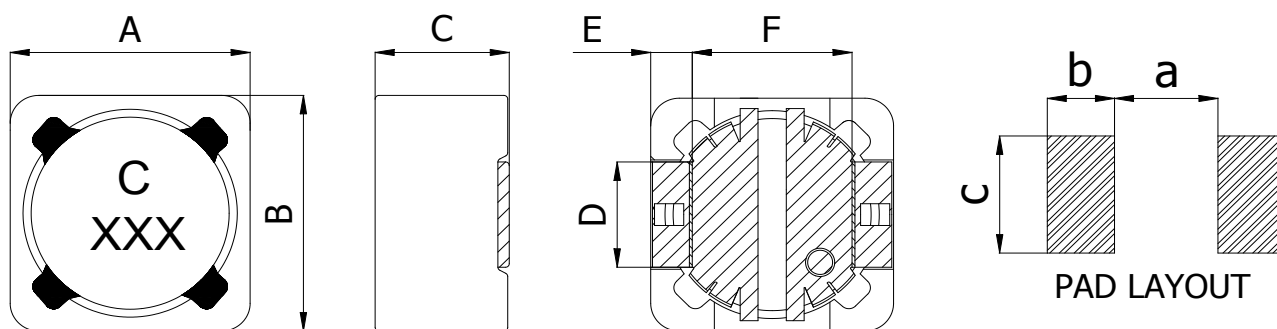
Environmental Data

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

Packaging

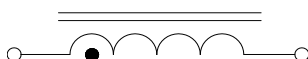
- Supplied in tape and reel packaging, 1200pcs(SP04-0703), 1000pcs(SP04-0704), per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A	B	C	D	E	F	a	b	c
			Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SP04-0703	7.3±0.3	7.3±0.3	3.55	2.0	1.25	4.7	3.5	2.5	3.25
	0.288±0.012	0.288±0.012	0.14	0.079	0.049	0.185	0.138	0.098	0.128
SP04-0704	7.3±0.3	7.3±0.3	4.35	2.0	1.25	4.7	3.5	2.5	3.25
	0.288±0.012	0.288±0.012	0.172	0.079	0.049	0.185	0.138	0.098	0.128

Electrical Schematic



Part Number Description

SP04 - 0703 1R0 N
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP04 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (m Ω)Typ.	DCR (m Ω)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP04-07031R0N	1.0	10.2	13.2	7.97	5.28	C1R0
SP04-07031R5N	1.5	13.0	16.9	6.52	4.67	C1R5
SP04-07032R2N	2.2	16.5	21.5	5.52	4.15	C2R2
SP04-07033R3M	3.3	25.9	33.7	4.22	3.31	C3R3
SP04-07034R7M	4.7	29.7	38.6	3.78	3.09	C4R7
SP04-07036R8M	6.8	43.5	56.5	3.12	2.55	C6R8
SP04-07038R2M	8.2	59.2	76.9	2.66	2.19	C8R2
SP04-0703100M	10	65.6	85.2	2.47	2.08	C100
SP04-0703150M	15	84.4	110	2.05	1.83	C150
SP04-0703220M	22	107	139	1.67	1.62	C220
SP04-0703330M	33	166	216	1.35	1.31	C330
SP04-0703470M	47	241	323	1.14	1.08	C470
SP04-0703680M	68	358	465	0.96	0.89	C680
SP04-0703820M	82	384	499	0.89	0.86	C820
SP04-0703101M	100	527	685	0.79	0.73	C101
SP04-0703151M	150	851	1106	0.65	0.58	C151
SP04-0703221M	220	1050	1365	0.53	0.52	C221
SP04-0703331M	330	1590	2067	0.44	0.42	C331
SP04-0703471M	470	2360	3068	0.37	0.35	C471
SP04-0703681M	680	3470	4511	0.31	0.29	C681
SP04-0703821M	820	3930	5109	0.28	0.27	C821
SP04-0703102K	1000	4340	5642	0.25	0.26	C102

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP04 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP04-07041R0N	1.0	9.9	12.9	10.2	5.39	C1R0
SP04-07041R5N	1.5	11.8	15.4	8.35	4.94	C1R5
SP04-07042R2N	2.2	12.6	14.4	7.06	4.76	C2R2
SP04-07043R3M	3.3	18.3	23.8	5.40	3.94	C3R3
SP04-07044R7M	4.7	25.4	33.0	4.37	3.34	C4R7
SP04-07046R8M	6.8	41.8	54.3	3.67	2.60	C6R8
SP04-07048R2M	8.2	44.1	57.3	3.40	2.53	C8R2
SP04-0704100M	10	48.9	63.6	3.17	2.41	C100
SP04-0704150M	15	63.7	82.8	2.48	2.11	C150
SP04-0704220M	22	92.5	120	2.13	1.75	C220
SP04-0704330M	33	143	186	1.73	1.41	C330
SP04-0704470M	47	216	281	1.41	1.15	C470
SP04-0704680M	68	265	345	1.19	1.03	C680
SP04-0704820M	82	345	449	1.11	0.91	C820
SP04-0704101M	100	383	498	0.99	0.86	C101
SP04-0704151M	150	591	768	0.81	0.69	C151
SP04-0704221M	220	907	1179	0.66	0.56	C221
SP04-0704331M	330	1410	1833	0.54	0.45	C331
SP04-0704471M	470	1740	2262	0.46	0.40	C471
SP04-0704681M	680	2580	3354	0.38	0.33	C681
SP04-0704821M	820	2930	3809	0.35	0.31	C821
SP04-0704102K	1000	3890	5057	0.31	0.27	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP05 Series Shielded Power Inductors

Features

- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Buck, boost, forward, and resonant converters

Environmental Data

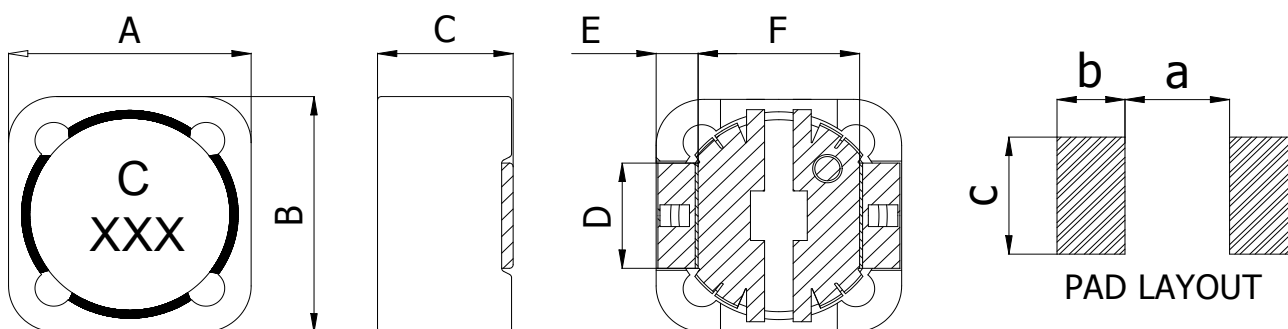
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

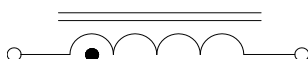
- Supplied in tape and reel packaging, 500pcs(SP05-1206), 400pcs(SP05-1208), per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A	B	C	D	E	F	a	b	c
SP05-1206	12.3±0.3	12.3±0.3	6.0	4.9	2.0	7.9	6.1	3.85	5.5
	0.484±0.012	0.484±0.012	0.236	0.193	0.079	0.311	0.24	0.151	0.217
SP05-1208	12.3±0.3	12.3±0.3	8.0	4.9	2.0	7.9	6.1	3.85	5.5
	0.484±0.012	0.484±0.012	0.315	0.193	0.079	0.311	0.24	0.151	0.217

Electrical Schematic



Part Number Description

SP05 - 1206 1R0 N
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP05 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP05-12061R0N	1.0	2.4	3.1	23.6	15.0	C1R0
SP05-12061R5N	1.5	2.9	3.8	18.3	13.8	C1R5
SP05-12062R2N	2.2	4.5	5.9	15.0	10.9	C2R2
SP05-12063R3M	3.3	6.3	8.2	12.7	9.26	C3R3
SP05-12064R7M	4.7	10.5	13.7	9.71	7.18	C4R7
SP05-12066R8M	6.8	12.3	16.0	8.68	6.64	C6R8
SP05-12068R2M	8.2	17.6	22.9	7.86	5.54	C8R2
SP05-1206100M	10	18.9	24.6	7.17	5.35	C100
SP05-1206150M	15	29.8	38.7	5.69	4.27	C150
SP05-1206180M	18	37.7	49.0	5.32	3.81	C180
SP05-1206220M	22	39.6	51.5	4.71	3.70	C220
SP05-1206330M	33	50.5	65.7	3.84	3.28	C330
SP05-1206470M	47	74	96	3.24	2.71	C470
SP05-1206560M	56	102	133	3.00	2.31	C560
SP05-1206680M	68	101	131	2.70	2.22	C680
SP05-1206820M	82	128	166	2.39	2.05	C820
SP05-1206101M	100	170	221	2.20	1.78	C101
SP05-1206151M	150	248	322	1.81	1.48	C151
SP05-1206221M	220	384	499	1.51	1.19	C221
SP05-1206331M	330	482	627	1.22	1.06	C331
SP05-1206471M	470	718	933	1.02	0.87	C471
SP05-1206681M	680	1100	1430	0.85	0.70	C681
SP05-1206821M	820	1490	1937	0.77	0.60	C821
SP05-1206102K	1000	1690	2197	0.70	0.57	C102
SP05-1206472K	4700	7530	9789	0.32	0.268	C472
SP05-1206124K	120000	150000	195000	0.069	0.060	C124

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP05 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP05-12081R0N	1.0	3.13	4.07	40.0	15.5	C1R0
SP05-12081R5N	1.5	3.41	4.43	31.1	13.5	C1R5
SP05-12082R2N	2.2	4.02	5.23	25.5	12.5	C2R2
SP05-12083R3M	3.3	5.67	7.37	21.5	10.5	C3R3
SP05-12084R7M	4.7	9.17	11.92	16.5	8.25	C4R7
SP05-12086R8M	6.8	11.6	15.1	13.3	7.34	C6R8
SP05-12088R2M	8.2	15.7	20.4	12.2	6.32	C8R2
SP05-1208100M	10	17.2	22.4	11.2	6.04	C100
SP05-1208150M	15	24.7	32.1	9.66	5.03	C150
SP05-1208220M	22	39.1	50.8	7.57	4.00	C220
SP05-1208330M	33	60.0	78.0	6.22	3.23	C330
SP05-1208470M	47	71.9	93.5	5.28	2.95	C470
SP05-1208680M	68	105	137	4.44	2.44	C680
SP05-1208820M	82	143	186	4.06	2.09	C820
SP05-1208101M	100	163	212	3.64	1.96	C101
SP05-1208151M	150	247	321	3.01	1.59	C151
SP05-1208221M	220	376	489	2.43	1.29	C221
SP05-1208331M	330	574	746	2.01	1.04	C331
SP05-1208471M	470	861	1119	1.68	0.85	C471
SP05-1208681M	680	1080	1404	1.39	0.76	C681
SP05-1208821M	820	1470	1911	1.27	0.65	C821
SP05-1208102K	1000	1660	2158	1.14	0.61	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP06 Series Shielded Power Inductors

Features

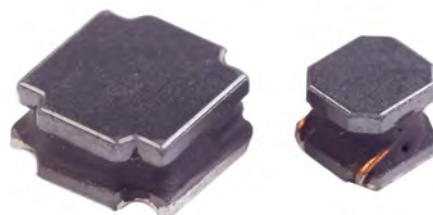
- Magnetic-resin shielded construction
- Frequency range up to 5MHz
- 30% higher current rating than conventional inductors of equal size
- Takes up less PCB real estate and save more power

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°C to +85°C
- Operating temperature range:-40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature:+260°C 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)

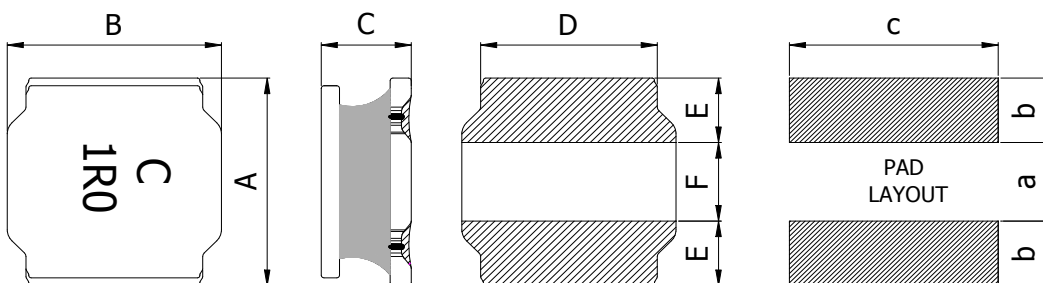


Fig.1

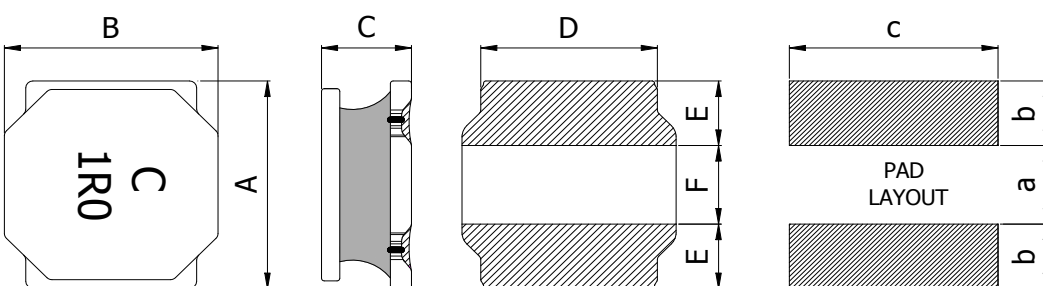


Fig.2

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) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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

- Tolerance of Inductance:K= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
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- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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

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

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
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SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
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- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
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- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP06 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 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= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP07 Series Shielded Power Inductors

Features

- Magnetic-resin shielded construction
- Frequency range up to 5MHz
- Alloy material core provides large saturation current
- 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

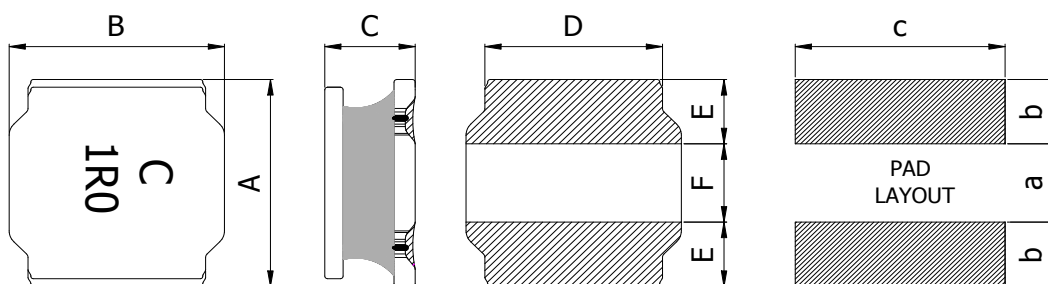
- Storage temperature range:-40℃ to +85℃
- Operating temperature range:-40℃ to +125℃
(including coil's self-temperature rise)
- Solder reflow temperature:+260℃ Max for 10 seconds Max
- Moisture sensitivity level:1
- RoHS&HF compliance



Packaging

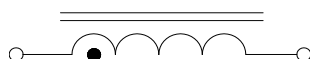
- Supplied in tape and reel packaging,
2000pcs(SP07-030012),per 7-inch reel,
3000pcs(SP07-030012),per 13-inch reel

Mechanical Dimension(Unit:mm/inches)



Type	A	B	C		E	F	a	b	c
			Max.	Nom.					
SP07-030012	3.0±0.2	3.0±0.2	1.2	2.6	0.75	1.5	1.5	0.8	3.2
	0.118±0.008	0.118±0.008	0.048	0.103	0.03	0.059	0.059	0.032	0.126
SP07-040020	4.0±0.2	4.0±0.2	2.0	3.1	0.95	2.1	1.9	1.1	3.7
	0.158±0.008	0.158±0.008	0.079	0.122	0.037	0.083	0.075	0.043	0.146

Electrical Schematic



Part Number Description

SP07 - 030012 1R5 M

①

②

③

④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP07 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP07-0300121R5M	1.5	0.064	37	3.40	4.10	2.50	2.90	1R5
SP07-0300122R2M	2.2	0.090	28	2.80	3.35	2.05	2.35	2R2
SP07-0300123R3M	3.3	0.129	25	2.20	2.60	1.70	2.00	3R3
SP07-0300124R7M	4.7	0.196	20	2.00	2.50	1.30	1.50	4R7
SP07-0300126R8M	6.8	0.290	16	1.60	1.90	1.10	1.25	6R8
SP07-030012100M	10	0.395	12	1.20	1.45	1.00	1.15	100

Electrical Characteristic

Part Number	Inductance	DCR	SRF	Isat		Irms		Marking
	L0(uH)	(Ω) \pm 30%	(MHz)Min.	(A) Max.	(A) Typ.	(A) Max.	(A) Typ.	
SP07-040020R22M	0.22	0.011	108	18.7	22.0	8.20	9.50	CR22
SP07-040020R47M	0.47	0.018	72	13.4	15.5	6.40	7.40	CR47
SP07-040020R68M	0.68	0.018	57	8.70	11.1	6.40	7.40	CR68
SP07-0400201R0M	1.0	0.022	37	8.70	11.1	5.80	6.70	C1R0
SP07-0400201R5M	1.5	0.030	30	7.70	9.60	5.20	6.00	C1R5
SP07-0400202R2M	2.2	0.040	25	6.10	7.60	4.30	5.00	C2R2
SP07-0400203R3M	3.3	0.060	19	4.70	5.90	3.45	4.00	C3R3
SP07-0400204R7M	4.7	0.090	17	4.00	4.90	2.85	3.30	C4R7
SP07-0400206R8M	6.8	0.130	13	3.00	4.20	2.40	2.80	C6R8
SP07-040020100M	10	0.180	11	2.80	3.50	2.00	2.35	C100

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

SP08 Series Unshielded Power Inductors

Features

- High energy storage and very low resistance
- Ideal inductors for DC-DC conversion
- Noise filtering and filter chokes
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- Industrial electronics, etc.
- DC-DC converters, etc.
- Buck, boost, forward, and resonant converters

Environmental Data

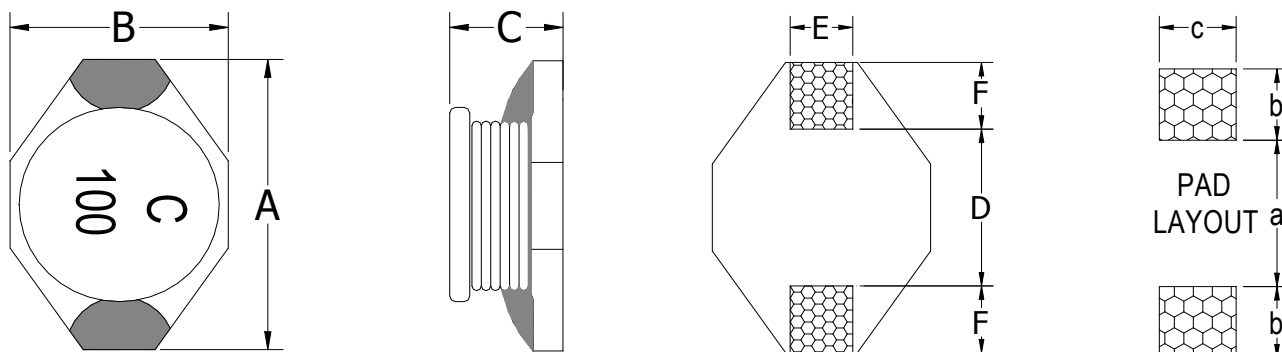
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

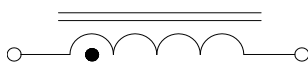
- Supplied in tape and reel packaging, 1000pcs(SP08-1304), 750pcs(SP08-1305), 250pcs(SP08-1311), 400pcs(SP08-1907), per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A Max.	B Max.	C Max.	D Nom.	E Nom.	F Nom.	a Nom.	b Nom.	c Nom.
SP08-1304	12.95	9.40	3.50	7.62	2.54	2.54	2.79	7.37	2.92
	0.51	0.37	0.14	0.30	0.10	0.10	0.11	0.29	0.115
SP08-1305	12.95	9.40	5.21	7.62	2.54	2.54	2.79	7.37	2.92
	0.51	0.37	0.21	0.30	0.10	0.10	0.11	0.29	0.115
SP08-1311	12.95	9.40	11.43	7.62	2.54	2.54	2.79	7.37	2.92
	0.51	0.37	0.45	0.30	0.10	0.10	0.11	0.29	0.115
SP08-1907	18.54	15.24	7.11	12.70	2.54	2.54	2.79	12.45	2.92
	0.73	0.60	0.28	0.50	0.10	0.10	0.11	0.49	0.115

Electrical Schematic



Part Number Description

SP08 - 1304 100 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP08 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	SRF (MHz)Typ.	DCR (Ω)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SP08-1304100M	10	35.0	0.11	2.40	2.00	C100
SP08-1304150M	15	33.0	0.15	2.00	1.50	C150
SP08-1304220M	22	25.0	0.23	1.60	1.30	C220
SP08-1304330M	33	19.0	0.30	1.40	1.10	C330
SP08-1304470M	47	14.0	0.39	1.00	0.80	C470
SP08-1304680M	68	12.0	0.66	0.90	0.70	C680
SP08-1304101K	100	10.0	0.84	0.70	0.60	C101
SP08-1304151K	150	8.0	1.20	0.60	0.50	C151
SP08-1304221K	220	8.0	1.90	0.50	0.40	C221
SP08-1304331K	330	5.0	2.70	0.40	0.30	C331
SP08-1304471K	470	4.0	4.00	0.30	0.20	C471
SP08-1304681K	680	3.0	5.30	0.20	0.10	C681
SP08-1304102K	1000	2.5	8.40	0.10	0.05	C102

Electrical Characteristic

Part Number	Inductance L0(uH)	SRF (MHz)Typ.	DCR (Ω)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SP08-13051R0M	1.0	100.0	0.009	9.00	6.80	C1R0
SP08-13051R5M	1.5	90.0	0.010	8.00	6.40	C1R5
SP08-13052R2M	2.2	80.0	0.012	7.00	6.10	C2R2
SP08-13053R3M	3.3	65.0	0.015	6.40	5.40	C3R3
SP08-13054R7M	4.7	45.0	0.018	5.40	4.80	C4R7
SP08-13056R8M	6.8	38.0	0.027	4.60	4.40	C6R8
SP08-1305100M	10	30.0	0.038	3.80	3.90	C100
SP08-1305150M	15	27.0	0.046	3.00	3.10	C150
SP08-1305220M	22	19.0	0.085	2.60	2.70	C220
SP08-1305330M	33	15.0	0.10	2.00	2.10	C330
SP08-1305470M	47	12.0	0.14	1.60	1.80	C470
SP08-1305680M	68	10.0	0.20	1.40	1.50	C680
SP08-1305101K	100	9.0	0.28	1.20	1.30	C101
SP08-1305151K	150	6.0	0.40	1.00	1.00	C151
SP08-1305221K	220	5.0	0.61	0.80	0.80	C221
SP08-1305331K	330	4.5	1.02	0.60	0.60	C331
SP08-1305471K	470	3.5	1.27	0.50	0.50	C471
SP08-1305681K	680	2.5	2.02	0.40	0.40	C681
SP08-1305102K	1000	2.0	3.00	0.30	0.30	C102

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP08 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	SRF (MHz)Typ.	DCR (Ω)Max.	Isat (A) Max.	Irms (A) Max.	Marking
SP08-1311100M	10	22.0	0.04	8.00	3.50	C100
SP08-1311150M	15	18.0	0.05	7.00	3.00	C150
SP08-1311220M	22	11.0	0.07	5.50	2.50	C220
SP08-1311330M	33	9.0	0.08	4.00	2.00	C330
SP08-1311470M	47	8.0	0.11	3.80	1.60	C470
SP08-1311680M	68	7.0	0.17	3.00	1.20	C680
SP08-1311101K	100	5.0	0.22	2.50	1.20	C101
SP08-1311151K	150	4.0	0.34	2.00	0.90	C151
SP08-1311221K	220	3.5	0.44	1.60	0.70	C221
SP08-1311331K	330	2.5	0.70	1.20	0.60	C331
SP08-1311471K	470	2.0	0.95	1.00	0.30	C471
SP08-1311681K	680	2.0	1.20	1.00	0.20	C681
SP08-1311102K	1000	1.5	2.00	0.80	0.10	C102

Electrical Characteristic

Part Number	Inductance L0(uH)	SRF (MHz)Typ.	DCR (Ω)Max.	Isat (A) Max.	Irms (A) Max.	Marking
SP08-19071R0M	1.0	80.0	0.009	20.0	8.60	C1R0
SP08-19072R2M	2.2	80.0	0.014	16.0	7.10	C2R2
SP08-19073R3M	3.3	60.0	0.018	14.0	6.20	C3R3
SP08-19075R6M	5.6	40.0	0.020	12.0	5.30	C5R6
SP08-1907100M	10	30.0	0.031	10.0	4.30	C100
SP08-1907150M	15	22.0	0.036	8.00	4.00	C150
SP08-1907220M	22	20.0	0.047	7.00	3.50	C220
SP08-1907330M	33	15.0	0.066	5.50	3.00	C330
SP08-1907470M	47	9.0	0.086	4.50	2.60	C470
SP08-1907680M	68	8.0	0.13	3.50	2.30	C680
SP08-1907101K	100	7.0	0.19	3.00	1.80	C101
SP08-1907151K	150	6.0	0.25	2.60	1.50	C151
SP08-1907221K	220	5.0	0.38	2.40	1.20	C221
SP08-1907331K	330	4.0	0.56	1.90	1.00	C331
SP08-1907471K	470	3.0	0.85	1.40	0.82	C471
SP08-1907681K	680	2.5	1.10	1.20	0.72	C681
SP08-1907102K	1000	2.0	1.80	1.00	0.56	C102

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP09 Series Shielded Power Inductors

Features

- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Other various electronic appliances

Environmental Data

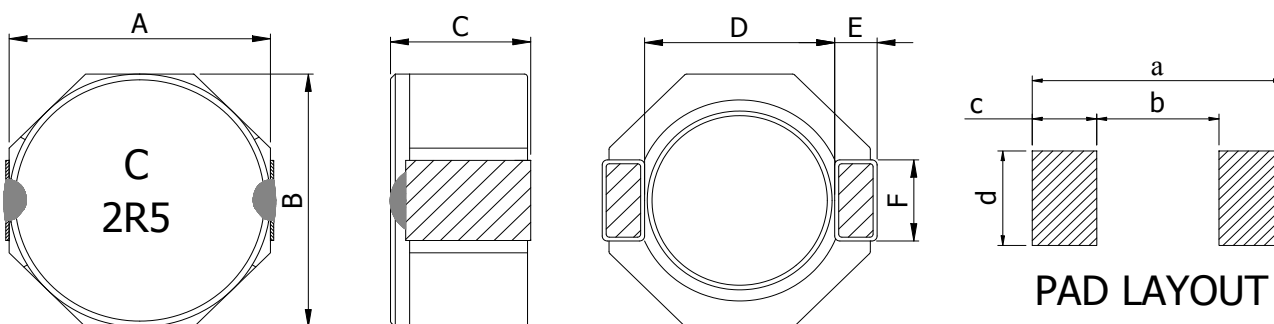
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

- Supplied in tape and reel packaging,
1500pcs(SP09-8028), 1200pcs(SP09-8038),
1000pcs(SP09-8043), 800pcs(SP09-8058), per 13-inch reel

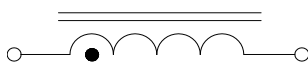


Mechanical Dimension (Unit:mm/inches)



Type	A	B	C	D	E	F	a	b	c	d
			Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SP09-8028	8.0±0.3	8.0±0.3	3.1	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.122	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SP09-8038	8.0±0.3	8.0±0.3	4.0	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.157	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SP09-8043	8.0±0.3	8.0±0.3	4.5	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.177	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SP09-8058	8.0±0.3	8.0±0.3	6.0	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.236	0.248	0.047	0.099	0.398	0.240	0.079	0.110

Electrical Schematic



Part Number Description

SP09 - 8028 2R5 μ

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP09 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SP09-80282R5N	2.5	17.0	22.0	5.00	4.80	C2R5
SP09-80283R3N	3.3	22.0	28.0	4.50	4.20	C3R3
SP09-80284R7N	4.7	26.0	33.8	3.80	3.70	C4R7
SP09-80287R3N	7.3	40.0	52.0	3.00	3.20	C7R3
SP09-8028100M	10	55.0	71.0	2.70	2.35	C100
SP09-8028150M	15	70.0	91.0	2.20	1.85	C150
SP09-8028220M	22	105	135	1.80	1.45	C220
SP09-8028330M	33	160	208	1.50	1.30	C330
SP09-8028470M	47	210	273	1.25	1.00	C470
SP09-8028680M	68	310	403	1.00	0.90	C680
SP09-8028101M	100	410	533	0.90	0.75	C101
SP09-8028151M	150	630	820	0.75	0.65	C151
SP09-8028181M	180	680	880	0.65	0.55	C181
SP09-8028221M	220	870	1120	0.55	0.50	C221

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SP09-80381R8N	1.8	12.0	15.6	7.00	6.80	C1R8
SP09-80382R5N	2.5	14.0	17.5	6.50	6.00	C2R5
SP09-80383R5N	3.5	17.0	24.0	5.00	5.20	C3R5
SP09-80384R7N	4.7	22.0	29.0	4.60	4.40	C4R7
SP09-80386R0N	6.0	24.0	32.0	4.20	4.00	C6R0
SP09-8038100M	10	43.0	48.0	3.00	3.20	C100
SP09-8038150M	15	61.0	67.0	2.75	2.50	C150
SP09-8038220M	22	86.0	105	2.30	2.00	C220
SP09-8038330M	33	128	157	1.75	1.60	C330
SP09-8038470M	47	163	189	1.52	1.42	C470
SP09-8038680M	68	232	290	1.30	1.08	C680
SP09-8038101M	100	355	410	1.05	0.88	C101

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 35%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SP09 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SP09-80431R2N	1.2	9.0	12.2	8.0	6.2	C1R2
SP09-80432R0N	2.0	11	14.0	7.0	5.5	C2R0
SP09-80433R3N	3.3	13	17.0	6.2	5.0	C3R3
SP09-80433R9N	3.9	15	19.0	5.9	4.5	C3R9
SP09-80434R7N	4.7	17	22.0	5.6	4.1	C4R7
SP09-80436R8N	6.8	23	30.0	4.4	3.9	C6R8
SP09-8043100M	10	29	36.0	4.0	3.2	C100
SP09-8043150M	15	42	53.0	2.9	2.3	C150
SP09-8043220M	22	60	75.0	2.6	1.8	C220
SP09-8043330M	33	100	125	2.2	1.4	C330
SP09-8043470M	47	140	180	1.8	1.3	C470
SP09-8043680M	68	190	240	1.5	1.0	C680
SP09-8043101M	100	290	360	1.3	0.8	C101

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SP09-80582R8N	2.8	12.0	15.0	4.7	6.9	C2R8
SP09-80583R9N	3.9	13.0	16.3	4.1	6.3	C3R9
SP09-80585R0N	5.0	14.0	17.5	3.8	6.0	C5R0
SP09-80586R2N	6.2	16.0	20.0	3.3	5.5	C6R2
SP09-8058100M	10	22.0	25.6	2.6	4.5	C100
SP09-8058150M	15	27.0	36.3	2.3	3.6	C150
SP09-8058220M	22	39.0	45.3	1.7	3.3	C220
SP09-8058330M	33	52.0	65.3	1.5	2.7	C330
SP09-8058470M	47	75.0	90.5	1.2	2.2	C470
SP09-8058680M	68	104	130	1.0	1.7	C680
SP09-8058101M	100	140	175	0.8	1.4	C101

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 35%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SP10 Series Shielded Power Inductors

Features

- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Other various electronic appliances

Environmental Data

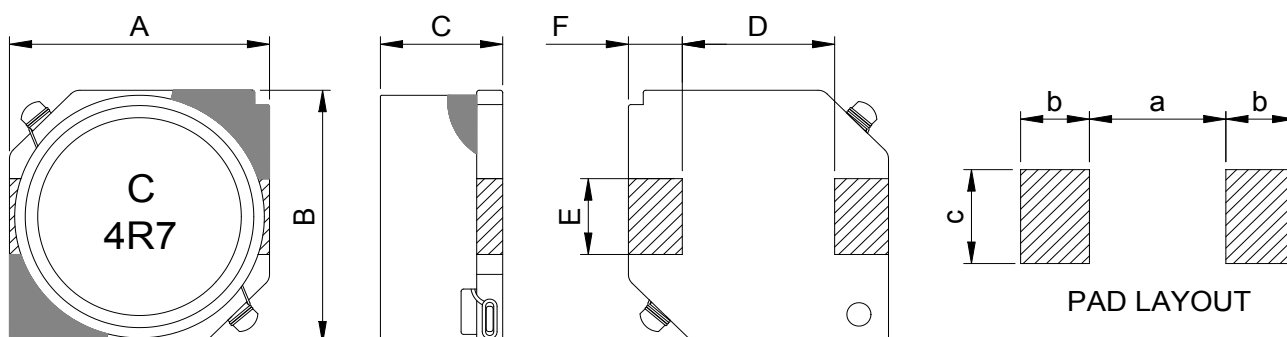
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

- Supplied in tape and reel packaging, 2400pcs(SP10-060028), 1500pcs(SP10-060045), 1500pcs(SP10-070032), 1000pcs(SP10-070045), 750pcs(SP10-101045), 500pcs(SP10-101065), 500pcs(SP10-125065), per 13-inch reel

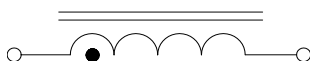
Mechanical Dimension (Unit:mm/inches)



Type	A	B	C	D	E	F	a	b	c
	Max.	Max.	Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SP10-060028	6.2	6.2	3.0	3.0	2.0	1.5	3.0	2.0	2.2
	0.244	0.244	0.118	0.118	0.079	0.059	0.118	0.079	0.087
SP10-060045	6.2	6.2	4.8	3.0	2.0	1.5	3.0	2.0	2.2
	0.244	0.244	0.189	0.118	0.079	0.059	0.118	0.079	0.087
SP10-070032	7.2	7.2	3.4	4.0	2.0	1.5	4.0	2.0	2.2
	0.284	0.284	0.134	0.158	0.079	0.059	0.158	0.079	0.087
SP10-070045	7.2	7.2	4.8	4.0	2.0	1.5	4.0	2.0	2.2
	0.284	0.284	0.189	0.158	0.079	0.059	0.158	0.079	0.087
SP10-101045	10.4	10.4	4.8	6.0	3.0	2.05	5.6	2.5	3.2
	0.41	0.41	0.189	0.237	0.118	0.08	0.22	0.098	0.126
SP10-101065	10.4	10.4	6.8	6.0	3.0	2.05	5.6	2.5	3.2
	0.41	0.41	0.268	0.237	0.118	0.08	0.22	0.098	0.126
SP10-125065	12.8	12.8	6.85	8.5	3.0	2.0	8.5	2.6	3.2
	0.504	0.504	0.27	0.335	0.118	0.079	0.335	0.102	0.126

SP10 Series Shielded Power Inductors

Electrical Schematic



Part Number Description

SP10 - 060028 4R7 M

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

Electrical Characteristic

Part Number	Inductance	DCR	Isat	Irms	Marking
	L0(uH)	(Ω) \pm 20%	(A)Max.	(A)Max.	
SP10-0600284R7M	4.7	0.036	1.60	2.50	C4R7
SP10-0600286R8M	6.8	0.052	1.50	2.20	C6R8
SP10-060028100M	10	0.068	1.30	1.80	C100
SP10-060028150M	15	0.100	1.00	1.40	C150
SP10-060028220M	22	0.120	0.77	1.30	C220
SP10-060028330M	33	0.180	0.69	1.10	C330
SP10-060028470M	47	0.270	0.59	0.92	C470
SP10-060028680M	68	0.390	0.50	0.78	C680
SP10-060028101M	100	0.620	0.42	0.64	C101

Electrical Characteristic

Part Number	Inductance	DCR	Isat	Irms	Marking
	L0(uH)	(Ω) \pm 30%	(A)Max.	(A)Max.	
SP10-0600451R5N	1.5	0.016	4.00	4.10	C1R5
SP10-0600452R2N	2.2	0.018	3.30	3.80	C2R2
SP10-0600453R3N	3.3	0.022	2.80	3.40	C3R3
SP10-0600454R7N	4.7	0.027	2.40	3.20	C4R7
SP10-0600456R8N	6.8	0.033	2.00	2.80	C6R8
SP10-060045100M	10	0.039	1.60	2.70	C100
SP10-060045150M	15	0.060	1.30	2.20	C150
SP10-060045220M	22	0.082	1.10	1.80	C220

- Tolerance of Inductance:K= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%(SP10-060028 is 30%).
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP10 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω) \pm 20%	Isat (A)Max.	Irms (A)Max.	Marking
SP10-0700323R3M	3.3	0.023	1.90	1.90	C3R3
SP10-0700324R7M	4.7	0.036	1.70	1.70	C4R7
SP10-0700326R8M	6.8	0.041	1.60	1.60	C6R8
SP10-070032100M	10	0.053	1.40	1.40	C100
SP10-070032150M	15	0.075	1.10	1.10	C150
SP10-070032220M	22	0.110	0.96	0.96	C220
SP10-070032330M	33	0.160	0.75	0.75	C330
SP10-070032470M	47	0.240	0.67	0.67	C470
SP10-070032680M	68	0.310	0.59	0.59	C680
SP10-070032101M	100	0.450	0.45	0.45	C101
SP10-070032151M	150	0.650	0.37	0.37	C151
SP10-070032221M	220	1.050	0.29	0.29	C221
SP10-070032331M	330	1.670	0.22	0.22	C331
SP10-070032471M	470	2.050	0.20	0.20	C471
SP10-070032681M	680	3.150	0.16	0.16	C681
SP10-070032102M	1000	4.780	0.13	0.13	C102

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω) \pm 20%	Isat (A)Max.	Irms (A)Max.	Marking
SP10-0700453R3M	3.3	0.020	2.50	2.30	C3R3
SP10-0700454R7M	4.7	0.030	2.00	2.10	C4R7
SP10-0700456R8M	6.8	0.039	1.70	1.74	C6R8
SP10-070045100M	10	0.036	1.30	1.68	C100
SP10-070045150M	15	0.052	1.10	1.53	C150
SP10-070045220M	22	0.061	0.90	1.34	C220
SP10-070045330M	33	0.096	0.82	1.09	C330
SP10-070045470M	47	0.125	0.75	0.92	C470
SP10-070045680M	68	0.175	0.60	0.77	C680
SP10-070045101M	100	0.250	0.50	0.65	C101
SP10-070045151M	150	0.340	0.40	0.55	C151
SP10-070045221M	220	0.520	0.33	0.45	C221
SP10-070045331M	330	0.740	0.25	0.37	C331
SP10-070045471M	470	1.050	0.22	0.31	C471
SP10-070045681M	680	1.480	0.20	0.27	C681
SP10-070045102M	1000	2.280	0.14	0.25	C102

- Tolerance of Inductance:K= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP10 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω) \pm 20%	Isat (A)Max.	Irms (A)Max.	Marking
SP10-1010453R3N	3.3	0.016	4.90	3.70	C3R3
SP10-1010455R6N	5.6	0.022	3.80	3.20	C5R6
SP10-101045100M	10	0.036	3.00	2.50	C100
SP10-101045150M	15	0.047	2.40	2.20	C150
SP10-101045220M	22	0.059	2.10	1.90	C220
SP10-101045330M	33	0.082	1.60	1.70	C330
SP10-101045470M	47	0.100	1.40	1.50	C470
SP10-101045680M	68	0.140	1.20	1.30	C680
SP10-101045101K	100	0.200	1.00	1.10	C101
SP10-101045151K	150	0.350	0.79	0.81	C151
SP10-101045221K	220	0.470	0.65	0.70	C221
SP10-101045331K	330	0.680	0.54	0.58	C331
SP10-101045471K	470	1.030	0.47	0.47	C471
SP10-101045681K	680	1.600	0.38	0.38	C681
SP10-101045102K	1000	2.800	0.32	0.29	C102
SP10-101045152K	1500	3.400	0.22	0.26	C152

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω) \pm 30%	Isat (A)Max.	Irms (A)Max.	Marking
SP10-1010651R5N	1.5	0.007	10.7	6.80	C1R5
SP10-1010652R2N	2.2	0.009	8.90	6.30	C2R2
SP10-1010653R3N	3.3	0.010	7.80	5.80	C3R3
SP10-1010654R7N	4.7	0.012	6.10	4.70	C4R7
SP10-1010656R8N	6.8	0.014	4.60	4.30	C6R8
SP10-101065100M	10	0.019	4.10	3.80	C100
SP10-101065150M	15	0.027	3.10	3.10	C150
SP10-101065220M	22	0.045	2.70	2.40	C220

- Tolerance of Inductance:K= \pm 10%,M= \pm 20%,N= \pm 30%.
- Test frequency and voltage:1KHz,0.5Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δ t of 40°C.

SP10 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)±20%	Isat (A)Max.	Irms (A)Max.	Marking
SP10-1250652R0N	2.0	11.7	10.0	6.20	C2R0
SP10-1250654R2N	4.2	15.0	7.30	5.50	C4R2
SP10-1250657R0N	7.0	17.7	5.70	5.00	C7R0
SP10-125065100M	10	20.2	5.00	4.80	C100
SP10-125065150M	15	23.7	4.20	4.40	C150
SP10-125065220M	22	31.6	3.50	3.80	C220
SP10-125065330M	33	40.6	2.80	3.40	C330
SP10-125065470M	47	57.8	2.40	2.80	C470
SP10-125065680M	68	78.7	2.00	2.40	C680
SP10-125065101M	100	123	1.60	1.90	C101
SP10-125065151M	150	273	1.00	1.20	C151

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:1KHz,0.5Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SP11 Series Shielded Power Inductors

Features

- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- FDTV, Games, AV equipment
- DC-DC converters, etc.
- Other various electronic appliances

Environmental Data

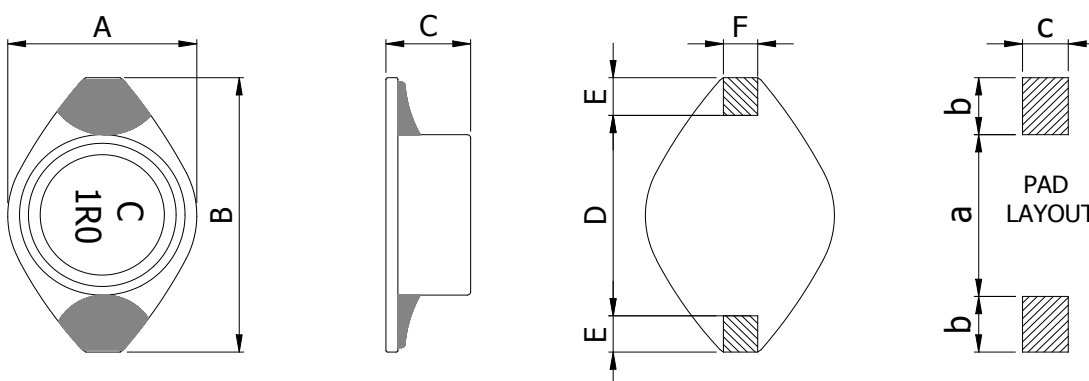
- Storage temperature range: -40°C to +85°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

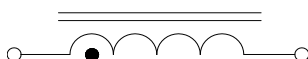
- Supplied in tape and reel packaging, 1000pcs(SP11-130051), 350pcs(SP09-185076), per 13-inch reel

Mechanical Dimension (Unit:mm/inches)



Type	A	B	C	D	E	F	a	b	c
	Max.	Max.	Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SP11-130051	9.40	12.95	5.08	7.62	2.54	2.54	7.37	2.92	2.79
	0.37	0.51	0.20	0.30	0.10	0.10	0.29	0.115	0.11
SP11-185076	15.24	18.54	7.62	12.70	2.54	2.54	12.45	2.92	2.79
	0.60	0.73	0.30	0.50	0.10	0.10	0.49	0.115	0.11

Electrical Schematic



Part Number Description

SP11 - 130051 1R0 N
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP11 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	SRF (MHz)Typ.	DCR (Ω)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SP11-1300511R0N	1.0	140	0.021	5.6	5.0	C1R0
SP11-1300511R5N	1.5	120	0.022	5.2	4.5	C1R5
SP11-1300512R2N	2.2	80	0.032	5.0	3.8	C2R2
SP11-1300513R3N	3.3	70	0.039	3.9	3.3	C3R3
SP11-1300514R7N	4.7	40	0.054	3.2	2.7	C4R7
SP11-1300516R8N	6.8	38	0.075	2.8	2.2	C6R8
SP11-130051100M	10	35	0.101	2.4	2.0	C100
SP11-130051150M	15	25	0.150	2.0	1.5	C150
SP11-130051220M	22	19	0.207	1.6	1.3	C220
SP11-130051330M	33	15	0.334	1.4	1.1	C330
SP11-130051470M	47	13	0.472	1.0	0.8	C470

Electrical Characteristic

Part Number	Inductance L0(uH)	SRF (MHz)Typ.	DCR (Ω)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SP11-185076100M	10	30	0.040	8.0	3.9	C100
SP11-185076150M	15	20	0.048	7.0	3.4	C150
SP11-185076220M	22	18	0.059	6.0	3.1	C220
SP11-185076330M	33	14	0.075	5.0	2.8	C330
SP11-185076470M	47	10	0.097	4.0	2.4	C470
SP11-185076680M	68	9.0	0.138	3.0	2.0	C680
SP11-185076101M	100	7.0	0.207	2.4	1.7	C101
SP11-185076151K	150	6.0	0.293	2.1	1.3	C151
SP11-185076221K	220	5.0	0.470	1.9	1.1	C221
SP11-185076331K	330	4.0	0.780	1.20	0.86	C331
SP11-185076471K	470	3.0	1.08	1.10	0.73	C471
SP11-185076681K	680	2.5	1.40	0.96	0.64	C681
SP11-185076102K	1000	2.0	2.01	0.80	0.53	C102

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 10%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SP12 Series Shielded Power Inductors

Features

- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Buck, boost, forward, and resonant converters

Environmental Data

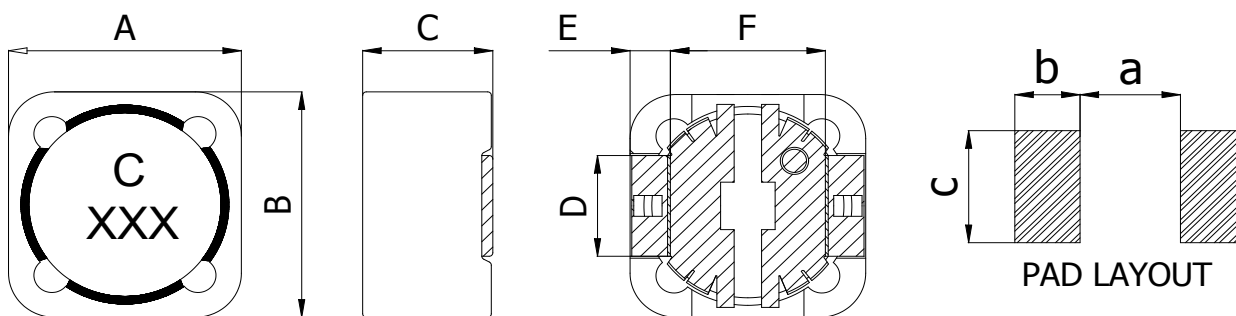
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

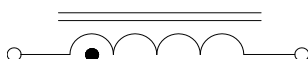
- Supplied in tape and reel packaging, 350pcs(SP12-1508), 175pcs(SP12-1514), per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A	B	C	D	E	F	a	b	c
			Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SP12-1508	15.0±0.5	15.0±0.5	8.6	4.9	2.45	9.9	9.4	3.0	5.4
	0.59±0.02	0.59±0.02	0.339	0.193	0.096	0.39	0.37	0.118	0.213
SP12-1514	15.0±0.5	15.0±0.5	14.5	4.9	2.45	9.9	9.4	3.0	5.4
	0.59±0.02	0.59±0.02	0.57	0.193	0.096	0.39	0.37	0.118	0.213

Electrical Schematic



Part Number Description

SP12 - 1508 100 M

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP12 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω)Typ.	DCR (Ω)Max.	SRF (MHz)Typ.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP12-1508100M	10	0.012	0.014	17.0	14.7	7.40	C100
SP12-1508120M	12	0.014	0.017	14.5	14.2	6.30	C120
SP12-1508150M	15	0.018	0.021	13.5	12.4	6.10	C150
SP12-1508180M	18	0.020	0.023	12.0	11.2	5.50	C180
SP12-1508220M	22	0.023	0.026	10.5	10.4	5.30	C220
SP12-1508330M	33	0.033	0.038	8.5	8.60	4.80	C330
SP12-1508470M	47	0.048	0.055	7.3	7.30	3.70	C470
SP12-1508680M	68	0.061	0.070	6.0	6.00	3.40	C680
SP12-1508101K	100	0.090	0.103	4.8	4.80	2.80	C101
SP12-1508151K	150	0.138	0.159	3.7	3.90	2.20	C151
SP12-1508221K	220	0.205	0.235	3.0	3.30	1.80	C221
SP12-1508331K	330	0.300	0.345	2.7	2.50	1.45	C331
SP12-1508471K	470	0.386	0.445	2.2	2.20	1.35	C471
SP12-1508681K	680	0.570	0.655	1.8	1.80	1.10	C681
SP12-1508821K	820	0.640	0.736	1.6	1.60	1.00	C821
SP12-1508102K	1000	0.860	0.990	1.5	1.40	0.86	C102

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP12 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω)Typ.	DCR (Ω)Max.	SRF (MHz)Typ.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP12-15142R5M	2.5	0.005	0.007	34.0	30.5	7.80	C2R5
SP12-15144R7M	4.7	0.006	0.008	25.0	23.7	7.60	C4R7
SP12-1514100M	10	0.007	0.009	16.5	16.2	6.80	C100
SP12-1514120M	12	0.009	0.012	14.5	14.8	6.60	C120
SP12-1514150M	15	0.012	0.015	11.0	13.3	5.80	C150
SP12-1514220M	22	0.015	0.018	10.0	11.0	5.10	C220
SP12-1514270M	27	0.017	0.022	8.50	9.90	4.70	C270
SP12-1514330M	33	0.022	0.026	7.20	9.00	3.90	C330
SP12-1514470M	47	0.032	0.038	5.60	7.50	3.45	C470
SP12-1514680M	68	0.039	0.045	5.20	6.20	3.20	C680
SP12-1514101K	100	0.058	0.064	3.80	5.15	2.50	C101
SP12-1514221K	220	0.130	0.145	2.30	3.50	1.70	C221
SP12-1514331K	330	0.167	0.185	2.10	2.83	1.55	C331
SP12-1514471K	470	0.250	0.275	1.65	2.40	1.30	C471
SP12-1514102K	1000	0.560	0.625	1.10	1.63	0.77	C102

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SP13 Series Shielded Power Inductors

Features

- High energy storage and very low resistance
- High efficiency
- Ideal inductors for DC-DC conversion
- Available on tape and reel for auto surface mounting

Applications

- Industrial electronics, etc.
- High current power supplies
- Distributed power systems DC-DC converters
- Multi-phase regulators, VRMs, EVRDs

Environmental Data

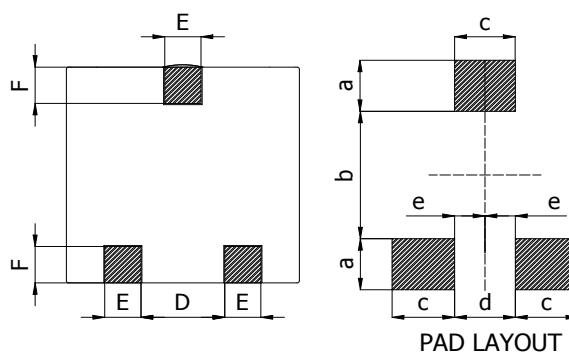
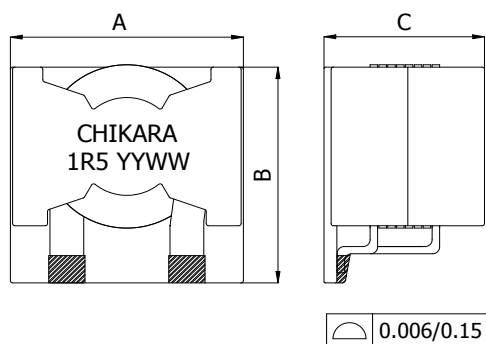
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

- Tray and carton box packaging, 30pcs(SP13-2816), 30pcs(SP13-2820), per tray

Mechanical Dimension (Unit:mm/inches)



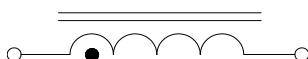
CHIKARA

①
1R5 YYWW
② ③

- ① Brand
- ② Inductance code (see table)
- ③ Year Week

Type	A	B	C	D	E	F	a	b	c	d	e
	Max.	Max.	Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SP13-2816A	27.9	27.9	15.9	5.5	4.6	4.6	6.0	15.1	5.8	4.3	2.15
	1.10	1.10	0.626	0.217	0.181	0.181	0.24	0.595	0.228	0.17	0.085
SP13-2816B	27.9	27.9	15.9	5.5	4.6	4.6	6.0	15.1	5.8	4.3	2.15
	1.10	1.10	0.626	0.217	0.181	0.181	0.24	0.595	0.228	0.17	0.085
SP13-2820A	27.9	27.9	20.0	5.5	4.6	4.6	6.0	15.1	5.8	4.3	2.15
	1.10	1.10	0.788	0.217	0.181	0.181	0.24	0.595	0.228	0.17	0.085

Electrical Schematic



Part Number Description

SP13 - 2816 A 1R5 M
① ② ③ ④ ⑤

- ① Type
- ② Dimensions
- ③ Characteristic code
- ④ Inductance value
- ⑤ Tolerance code

SP13 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance		DCR		Isat	Irms	Marking
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.		
SP13-2816A1R5M	1.5	1.50	1.65	100	30	1R5	
SP13-2816A2R2M	2.2	1.50	1.65	82	30	2R2	
SP13-2816A3R3M	3.3	1.50	1.65	48	30	3R3	
SP13-2816A4R7M	4.7	1.50	1.65	33	30	4R7	
SP13-2816A6R8M	6.8	1.50	1.65	22	30	6R8	
SP13-2816A100K	10	1.50	1.65	13	30	100	
SP13-2816A150K	15	1.50	1.65	7.5	30	150	
SP13-2816A220K	22	1.50	1.65	4.5	30	220	
SP13-2816A330K	33	1.50	1.65	2.0	30	330	

Electrical Characteristic

Part Number	Inductance		DCR		Isat	Irms	Marking
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.		
SP13-2816B2R2M	2.2	1.86	2.05	100	30	2R2	
SP13-2816B3R3M	3.3	1.86	2.05	62	30	3R3	
SP13-2816B4R7M	4.7	1.86	2.05	42	30	4R7	
SP13-2816B6R8M	6.8	1.86	2.05	30	30	6R8	
SP13-2816B100K	10	1.86	2.05	18	30	100	
SP13-2816B150K	15	1.86	2.05	12	30	150	
SP13-2816B220K	22	1.86	2.05	7.0	30	220	
SP13-2816B330K	33	1.86	2.05	4.0	30	330	

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:500KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 20%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SP13 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR		Isat ¹ (A)Typ.	Isat ² (A)Typ.	Isat ³ (A)Typ.	Irms (A)Typ.	Marking
		(mΩ)Typ.	(mΩ)Max.					
SP13-2820A3R3M	3.3	2.5	2.75	85.0	87.0	89.0	31.0	3R3
SP13-2820A4R7M	4.7	2.5	2.75	60.5	63.0	65.0	31.0	4R7
SP13-2820A6R8M	6.8	2.5	2.75	42.0	45.0	46.0	31.0	6R8
SP13-2820A8R2M	8.2	2.5	2.75	36.0	38.5	39.4	31.0	8R2
SP13-2820A100M	10	3.2	3.52	31.0	33.0	34.1	26.8	100
SP13-2820A120M	12	3.2	3.52	28.5	31.0	32.0	26.8	120
SP13-2820A150M	15	3.5	3.85	25.5	27.5	28.1	25.5	150
SP13-2820A180M	18	4.5	4.95	22.5	24.9	25.6	22.0	180
SP13-2820A220M	22	6.2	6.82	20.5	22.3	23.0	19.0	220
SP13-2820A330M	33	8.9	9.79	17.5	19.0	19.8	15.6	330
SP13-2820A470M	47	11.5	12.7	15.0	16.8	17.4	13.7	470
SP13-2820A560M	56	15.0	16.5	13.5	14.8	15.2	12.0	560
SP13-2820A620M	62	15.0	16.5	12.5	13.4	14.0	12.0	620
SP13-2820A680M	68	15.0	16.5	11.0	12.3	12.9	12.0	680
SP13-2820A101M	100	22.0	25.3	8.9	9.5	9.8	10.0	101
SP13-2820A151M	150	31.5	36.2	7.7	8.3	8.7	7.5	151
SP13-2820A221M	220	41.1	47.3	5.5	6.0	6.3	6.5	221
SP13-2820A331M	330	56.0	64.4	4.5	5.1	5.3	5.5	331
SP13-2820A471M	470	76.5	88.0	3.9	4.3	4.5	4.5	471

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:300KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat¹) will cause L0 to drop approximately 10%.
- Saturation current(Isat²) will cause L0 to drop approximately 20%.
- Saturation current(Isat³) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SP14 Series Shielded Power Inductors

Features

- High energy storage and very low resistance
- High efficiency
- Frequency range up to 5.0 MHz
- Alloy powder core material

Applications

- Industrial electronics, etc.
- High current power supplies
- Distributed power systems DC-DC converters
- Multi-phase regulators, VRMs, EVRDs

Environmental Data

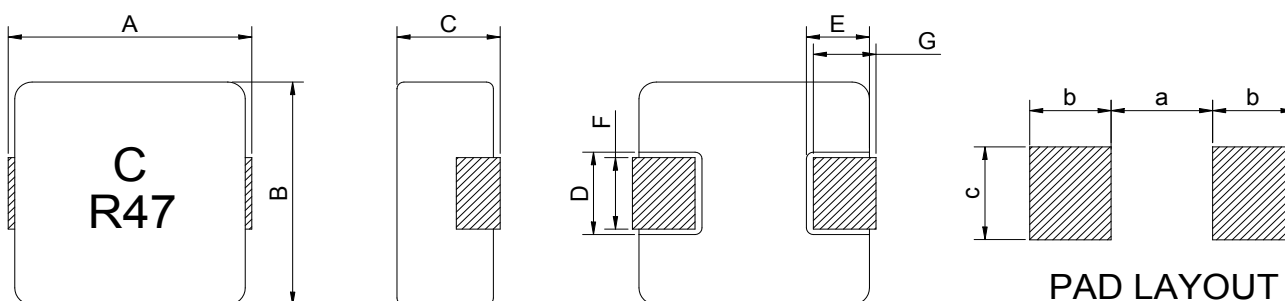
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

- Supplied in tape and reel packaging, 3000pcs(SP14-057018), 2500pcs(SP14-057030), 2000pcs(SP14-070024), 1500pcs(SP14-070030), 1200pcs(SP14-070040), 600pcs(SP14-138040), 500pcs(SP14-138050), 400pcs(SP14-138060), per 13-inch reel

Mechanical Dimension (Unit: mm/inches)

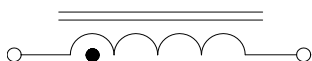


PAD LAYOUT

Type	A	B	C	D	E	F	G	a	b	c
			Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SP14-057018	5.4±0.3	5.2±0.3	1.8	2.5	1.5	2.2	1.2	2.2	1.9	2.5
	0.213±0.012	0.205±0.012	0.071	0.099	0.059	0.087	0.047	0.087	0.075	0.099
SP14-057030	5.4±0.3	5.2±0.3	3.0	2.5	1.5	2.2	1.2	2.2	1.9	2.5
	0.213±0.012	0.205±0.012	0.119	0.099	0.059	0.087	0.047	0.087	0.075	0.099
SP14-070024	7.0±0.3	6.6±0.3	2.4	3.6	2.0	3.0	1.6	3.7	2.35	3.5
	0.276±0.012	0.26±0.012	0.095	0.142	0.079	0.119	0.063	0.146	0.093	0.138
SP14-070030	7.0±0.3	6.6±0.3	3.0	3.6	2.0	3.0	1.6	3.7	2.35	3.5
	0.276±0.012	0.26±0.012	0.119	0.142	0.079	0.119	0.063	0.146	0.093	0.138
SP14-070040	7.0±0.3	6.6±0.3	4.0	3.6	2.0	3.0	1.6	3.7	2.35	3.5
	0.276±0.012	0.26±0.012	0.158	0.142	0.079	0.119	0.063	0.146	0.093	0.138
SP14-138040	13.3±0.5	12.6±0.5	4.0	6.0	2.5	5.0	2.5	8.0	3.0	6.0
	0.524±0.02	0.496±0.02	0.158	0.237	0.099	0.197	0.099	0.315	0.119	0.237
SP14-138050	13.3±0.5	12.6±0.5	5.0	6.0	2.5	5.0	2.5	8.0	3.0	6.0
	0.524±0.02	0.496±0.02	0.197	0.237	0.099	0.197	0.099	0.315	0.119	0.237
SP14-138060	13.3±0.5	12.6±0.5	6.0	6.0	2.5	5.0	2.5	8.0	3.0	6.0
	0.524±0.02	0.496±0.02	0.237	0.237	0.099	0.197	0.099	0.315	0.119	0.237

SP14 Series Shielded Power Inductors

Electrical Schematic



Part Number Description

SP14 - 057018 R47 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP14-057018R47M	0.47	7.7	9.0	15.5	10.5	CR47
SP14-057018R56M	0.56	8.0	10.0	15.0	9.5	CR56
SP14-0570181R0M	1.0	15.0	17.0	9.5	8.0	C1R0
SP14-0570181R5M	1.5	21.0	26.0	9.0	7.5	C1R5
SP14-0570182R2M	2.2	30.0	35.0	6.5	5.0	C2R2
SP14-0570183R3M	3.3	52.0	58.0	5.0	4.5	C3R3
SP14-0570184R7M	4.7	78.0	85.0	4.0	3.5	C4R7
SP14-0570186R8M	6.8	107.0	120.0	3.4	2.8	C6R8
SP14-057018100M	10.0	140.0	155.0	3.0	2.5	C100

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP14-057030R10M	0.10	2.4	3.0	33.0	25.0	CR10
SP14-057030R20M	0.20	3.5	3.9	14.5	14.0	CR20
SP14-057030R47M	0.47	7.4	8.5	12.0	11.0	CR47
SP14-057030R68M	0.68	11.0	12.0	11.5	9.0	CR68
SP14-0570301R0M	1.0	13.0	14.0	11.0	8.5	C1R0
SP14-0570301R2M	1.2	15.0	16.0	11.0	8.5	C1R2
SP14-0570301R5M	1.5	20.0	25.0	8.5	8.2	C1R5
SP14-0570302R2M	2.2	25.0	29.0	7.5	7.0	C2R2
SP14-0570303R3M	3.3	32.0	38.0	6.0	5.5	C3R3
SP14-0570304R7M	4.7	50.0	60.0	5.0	4.5	C4R7
SP14-0570306R8M	6.8	75.0	90.0	4.0	3.5	C6R8
SP14-057030100M	10.0	110.0	125.0	3.5	3.2	C100

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP14 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP14-070024R22M	0.22	2.5	3.0	34.0	21.0	CR22
SP14-070024R33M	0.33	3.5	4.1	24.5	18.0	CR33
SP14-070024R47M	0.47	4.5	5.1	22.0	15.0	CR47
SP14-070024R56M	0.56	5.5	6.5	17.0	13.0	CR56
SP14-070024R68M	0.68	6.2	7.0	16.0	12.0	CR68
SP14-0700241R0M	1.0	11.0	13.5	16.0	9.0	C1R0
SP14-0700241R5M	1.5	17.0	20.0	15.0	9.0	C1R5
SP14-0700242R2M	2.2	23.0	28.0	14.0	7.0	C2R2
SP14-0700243R3M	3.3	31.0	39.0	10.0	5.5	C3R3
SP14-0700244R7M	4.7	41.0	50.0	7.5	5.0	C4R7
SP14-0700246R8M	6.8	57.0	70.0	6.0	4.0	C6R8
SP14-070024100M	10.0	92.0	101.0	4.0	3.1	C100
SP14-070024150M	15.0	145.0	160.0	3.3	2.5	C150
SP14-070024220M	22.0	220.0	240.0	2.5	2.0	C220

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP14-070030R22M	0.22	2.5	3.0	34.0	24.0	CR22
SP14-070030R24M	0.24	2.6	3.1	26.0	23.0	CR24
SP14-070030R33M	0.33	3.0	3.5	25.0	21.0	CR33
SP14-070030R47M	0.47	3.5	4.1	20.0	18.0	CR47
SP14-070030R56M	0.56	3.9	4.5	18.0	16.5	CR56
SP14-070030R68M	0.68	4.8	5.3	17.0	16.0	CR68
SP14-070030R82M	0.82	5.4	6.0	16.0	14.0	C8R2
SP14-0700301R0M	1.0	6.7	7.4	15.0	12.0	C1R0
SP14-0700301R5M	1.5	10.6	12.1	14.0	12.0	C1R5
SP14-0700302R2M	2.2	13.5	15.0	10.0	9.5	C2R2
SP14-0700303R3M	3.3	18.0	22.0	9.5	8.5	C3R3
SP14-0700304R7M	4.7	28.0	33.0	6.5	6.0	C4R7
SP14-0700306R8M	6.8	42.5	48.0	6.0	5.0	C6R8
SP14-0700308R2M	8.2	54.0	60.0	6.0	5.0	C8R2
SP14-070030100M	10.0	62.0	67.0	5.5	4.5	C100
SP14-070030150M	15.0	104.0	115.0	4.5	3.0	C150
SP14-070030220M	22.0	180.0	200.0	3.0	2.3	C220
SP14-070030330M	33.0	280.0	310.0	2.5	2.0	C330

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP14 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP14-070040R22M	0.22	1.5	1.8	35.0	33.0	CR22
SP14-070040R47M	0.47	3.5	4.0	21.0	20.0	CR47
SP14-070040R68M	0.68	4.2	4.8	19.0	18.0	CR68
SP14-0700401R0M	1.00	5.0	6.0	17.0	14.0	C1R0
SP14-0700402R2M	2.20	11.0	13.5	13.0	11.0	C2R2
SP14-0700403R3M	3.30	16.0	20.0	12.5	10.0	C3R3
SP14-0700404R7M	4.70	25.0	30.0	9.0	7.0	C4R7
SP14-070040100M	10.0	60.0	65.0	5.0	5.0	C100
SP14-070040150M	15.0	95.0	105.0	4.5	4.0	C150
SP14-070040220M	22.0	115.0	125.0	4.0	3.5	C220

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP14-138040R68M	0.68	3.0	3.5	47.0	28.0	CR68
SP14-138040R82M	0.82	4.0	4.5	40.0	28.0	CR82
SP14-1380401R0M	1.00	6.5	7.5	35.0	24.0	C1R0
SP14-1380401R5M	1.50	8.0	9.5	30.5	20.0	C1R5
SP14-1380402R2M	2.20	10.0	11.5	26.0	18.0	C2R2
SP14-1380403R3M	3.30	12.0	13.0	21.0	15.0	C3R3
SP14-1380404R7M	4.70	13.5	14.5	18.0	13.0	C4R7

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP14-138050R68M	0.68	1.35	1.55	46.5	33.0	CR68
SP14-138050R82M	0.82	1.45	1.67	39.0	30.0	CR82
SP14-1380501R0M	1.0	1.90	2.20	35.0	26.0	C1R0
SP14-1380501R5M	1.5	2.80	3.20	33.0	23.0	C1R5
SP14-1380502R2M	2.2	4.00	5.00	24.0	15.0	C2R2
SP14-1380503R3M	3.3	5.90	7.00	22.0	14.0	C3R3
SP14-1380504R7M	4.7	8.20	9.00	21.0	13.0	C4R7
SP14-1380506R8M	6.8	14.5	18.0	16.0	12.0	C6R8
SP14-138050100M	10.0	19.0	22.0	12.0	9.0	C100
SP14-138050220M	22.0	51.0	58.0	6.5	4.5	C220
SP14-138050330M	33.0	75.0	84.0	6.0	3.5	C330
SP14-138050470M	47.0	116.0	130.0	5.0	3.0	C470

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP14 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SP14-1380604R7M	4.7	8.5	9.0	24.0	20.0	C4R7
SP14-1380605R6M	5.6	9.5	11.0	22.5	18.0	C5R6
SP14-1380608R2M	8.2	13.6	16.0	13.5	11.0	C8R2
SP14-138060100M	10	18.0	20.7	12.5	10.0	C100
SP14-138060120M	12	20.0	23.0	10.0	7.0	C120
SP14-138060150M	15	25.0	29.0	9.0	6.0	C150
SP14-138060180M	18	30.0	35.0	8.0	5.5	C180
SP14-138060220M	22	34.0	39.5	7.5	5.0	C220
SP14-138060270M	27	49.0	56.0	6.5	4.5	C270
SP14-138060330M	33	65.0	75.0	6.0	4.0	C330
SP14-138060470M	47	80.0	90.0	5.5	3.5	C470
SP14-138060680M	68	120.0	140.0	4.5	3.0	C680
SP14-138060101M	100	180.0	200.0	3.5	2.5	C101
SP14-138060121M	120	210.0	235.0	3.2	2.3	C121
SP14-138060151M	150	300.0	350.0	2.7	2.0	C151

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP15 Series Shielded Power Inductors

Features

- High energy storage and very low resistance
- High efficiency
- Frequency range up to 5.0 MHz
- Alloy powder core material

Applications

- Industrial electronics, etc.
- High current power supplies
- Distributed power systems DC-DC converters
- Multi-phase regulators, VRMs, EVRDs

Environmental Data

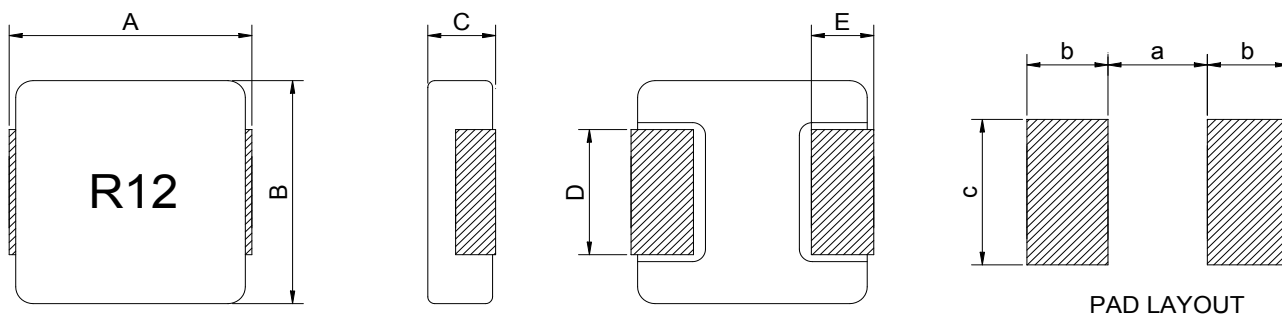
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

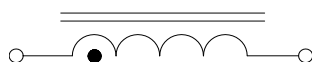
- Supplied in tape and reel packaging, 4000pcs(SP15-037012), 3000pcs(SP15-037020), 4000pcs(SP15-047012), 3000pcs(SP15-047020), per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A	B	C Max.	D Nom.	E Nom.	a Nom.	b Nom.	c Nom.
SP15-037012	3.4±0.3	3.0±0.2	1.2	1.3	0.7	1.2	1.5	1.8
	0.134±0.012	0.119±0.008	0.048	0.051	0.028	0.048	0.059	0.071
SP15-037020	3.4±0.3	3.0±0.2	2.0	1.3	0.7	1.2	1.5	1.8
	0.134±0.012	0.119±0.008	0.079	0.051	0.028	0.048	0.059	0.071
SP15-047012	4.4±0.3	4.0±0.3	1.2	2.0	0.76	1.9	1.55	2.5
	0.174±0.012	0.158±0.012	0.048	0.079	0.030	0.075	0.061	0.099
SP15-047020	4.4±0.3	4.0±0.3	2.0	2.0	0.76	1.9	1.55	2.5
	0.174±0.012	0.158±0.012	0.079	0.079	0.030	0.075	0.061	0.099

Electrical Schematic



Part Number Description

SP15 - 037012 R12 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SP15 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms		Marking
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.	
SP15-037012R12M	0.12	4.3	5.5	17.0	14.0	10.0	8.0	R12
SP15-037012R33M	0.33	15.8	18.0	9.6	8.6	7.2	5.2	R33
SP15-037012R47M	0.47	22.0	25.0	8.2	7.2	6.2	4.2	R47
SP15-0370121R0M	1.00	39.2	45.0	5.4	4.2	4.0	3.0	1R0
SP15-0370122R2M	2.20	88.5	102	4.0	3.4	2.5	2.1	2R2
SP15-0370123R3M	3.30	136	155	2.4	2.0	1.8	1.4	3R3
SP15-037012100M	10.0	313	360	1.5	1.2	1.0	0.8	100

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms		Marking
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.	
SP15-037020R22M	0.22	8.5	10.0	16.0	13.0	10.0	8.0	R22
SP15-037020R47M	0.47	18.0	21.5	11.0	9.5	8.0	6.5	R47
SP15-037020R68M	0.68	22.0	26.0	10.0	8.5	7.0	5.5	R68
SP15-0370201R0M	1.00	32.0	36.0	8.0	6.0	5.0	4.0	1R0
SP15-0370201R5M	1.50	34.0	39.0	6.0	5.0	4.2	3.2	1R5
SP15-0370202R2M	2.20	60.0	69.0	4.8	4.0	3.3	2.8	2R2
SP15-0370204R7M	4.70	142.0	158.0	3.3	2.8	2.4	2.0	4R7

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms		Marking
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.	
SP15-047012R33M	0.33	12.0	14.5	14.0	12.0	10.0	8.0	CR33
SP15-047012R47M	0.47	16.8	20.0	13.0	10.0	8.8	7.0	CR47
SP15-047012R68M	0.68	19.0	23.0	9.0	7.0	6.0	5.0	CR68
SP15-0470121R0M	1.00	36.5	43.0	7.8	6.2	5.2	4.5	C1R0
SP15-0470121R5M	1.50	54.5	62.0	6.2	5.4	4.2	3.5	C1R5
SP15-0470122R2M	2.20	72.0	80.0	5.5	4.5	3.5	3.0	C2R2
SP15-0470123R3M	3.30	97.0	111.0	4.5	3.9	2.8	2.4	C3R3

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:1MHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP15 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms		Marking
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.	
SP15-047020R22M	0.22	5.7	8.0	20.0	17.0	14.0	12.0	CR22
SP15-047020R33M	0.33	8.2	10.2	15.0	12.5	11.0	9.0	CR33
SP15-047020R82M	0.82	13.5	16.0	9.5	8.5	7.0	6.0	CR82
SP15-0470201R0M	1.00	16.4	21.0	9.0	7.2	6.5	5.5	C1R0
SP15-0470201R2M	1.20	20.0	25.0	8.0	6.6	5.5	4.8	C1R2
SP15-0470201R5M	1.50	22.0	28.0	7.0	6.0	4.8	4.0	C1R5
SP15-0470202R2M	2.20	31.5	38.0	5.5	4.5	4.0	3.5	C2R2
SP15-0470203R3M	3.30	47.5	55.0	4.2	3.5	3.5	3.0	C3R3
SP15-0470204R7M	4.70	58.0	70.0	3.8	3.2	3.0	2.2	C4R7
SP15-047020100M	10.0	154.0	190.0	3.5	3.0	2.2	1.8	C100
SP15-047020220M	22.0	430.0	460.0	1.8	1.5	1.2	1.0	C220

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:1MHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP16 Series Shielded Power Inductors

Features

- High energy storage and very low resistance
- High efficiency
- Low audible core noise
- Alloy powder core material

Applications

- LCD Panel, OLED Panel, LCD Driver
- Smart Phones, HDDs, DVCs
- DC-DC converters, Server application
- Battery powered devices

Environmental Data

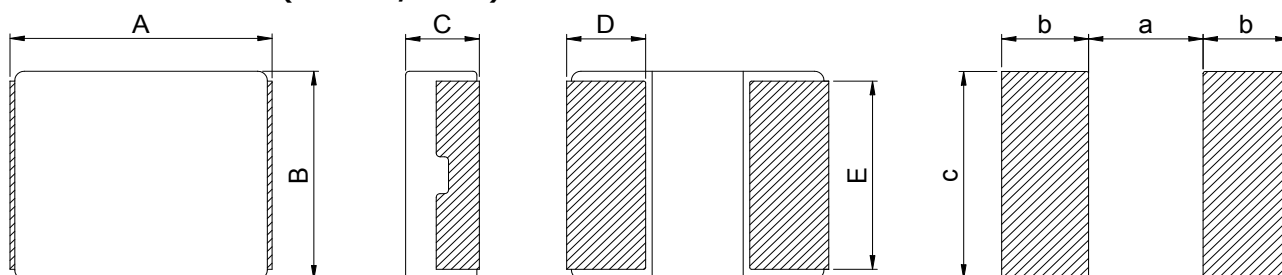
- Storage temperature range: -55°C to +125°C
- Operating temperature range: -55°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

- Supplied in tape and reel packaging, 3000pcs(SP16-2010), 3000pcs(SP16-2012), 3000pcs(SP16-2510), 3000pcs(SP16-2512), per 7-inch reel

Mechanical Dimension (Unit:mm/inches)

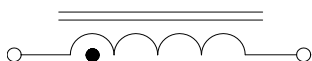


PAD LAYOUT

Type	A	B	C	D	E	a	b	c
			Max.	Nom.	Nom.	Nom.	Nom.	Nom.
SP16-2010A	2.0±0.2	1.6±0.2	1.0	0.5	1.44	0.9	0.7	1.6
	0.079±0.008	0.079±0.008	0.04	0.02	0.057	0.036	0.028	0.063
SP16-2010B	2.0±0.2	1.6±0.2	1.0	0.5	1.44	0.9	0.7	1.6
	0.079±0.008	0.079±0.008	0.04	0.02	0.057	0.036	0.028	0.063
SP16-2012A	2.0±0.2	1.6±0.2	1.2	0.5	1.44	0.9	0.7	1.6
	0.079±0.008	0.079±0.008	0.048	0.02	0.057	0.036	0.028	0.063
SP16-2012B	2.0±0.2	1.6±0.2	1.2	0.5	1.44	0.9	0.7	1.6
	0.079±0.008	0.079±0.008	0.048	0.02	0.057	0.036	0.028	0.063
SP16-2510A	2.5±0.2	2.0±0.2	1.0	0.6	1.84	1.2	0.8	2.0
	0.099±0.008	0.079±0.008	0.04	0.024	0.073	0.048	0.032	0.079
SP16-2510B	2.5±0.2	2.0±0.2	1.0	0.6	1.84	1.2	0.8	2.0
	0.099±0.008	0.079±0.008	0.04	0.024	0.073	0.048	0.032	0.079
SP16-2512A	2.5±0.2	2.0±0.2	1.2	0.6	1.84	1.2	0.8	2.0
	0.099±0.008	0.079±0.008	0.048	0.024	0.073	0.048	0.032	0.079
SP16-2512B	2.5±0.2	2.0±0.2	1.2	0.6	1.84	1.2	0.8	2.0
	0.099±0.008	0.079±0.008	0.048	0.024	0.073	0.048	0.032	0.079

SP16 Series Shielded Power Inductors

Electrical Schematic



Part Number Description

SP16 - 2010 A R24 M

①

②

③

④

⑤

① Type

② Dimensions

③ Characteristic code

④ Inductance value

⑤ Tolerance code

Electrical Characteristic

Part Number	Inductance		DCR		Isat		Irms	
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.	
SP16-2010AR24M	0.24	20.0	24.0	4.8	4.3	4.0	3.5	
SP16-2010AR33M	0.33	29.0	36.0	4.2	3.7	3.4	3.0	
SP16-2010AR47M	0.47	36.0	46.0	3.6	3.2	2.7	2.4	
SP16-2010AR68M	0.68	55.0	66.0	3.2	2.9	2.4	2.2	
SP16-2010A1R0M	1.00	63.0	78.0	2.7	2.2	2.1	1.9	
SP16-2010A1R5M	1.50	105.0	137.0	2.2	2.0	1.8	1.6	
SP16-2010A2R2M	2.20	174.0	197.0	1.9	1.6	1.6	1.4	

Electrical Characteristic

Part Number	Inductance		DCR		Isat		Irms	
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.	
SP16-2010BR24M	0.24	17.0	20.5	6.0	5.4	4.7	4.2	
SP16-2010BR33M	0.33	25.0	30.0	5.2	4.7	4.1	3.6	
SP16-2010BR47M	0.47	32.0	38.0	5.0	4.4	3.8	3.3	
SP16-2010BR68M	0.68	42.0	48.0	4.0	3.6	3.2	2.7	
SP16-2010B1R0M	1.00	60.0	68.0	2.9	2.4	2.6	2.3	
SP16-2010B1R5M	1.50	100.0	116.0	2.4	1.8	2.1	1.8	
SP16-2010B2R2M	2.20	147.0	163.0	1.9	1.6	1.8	1.6	

Electrical Characteristic

Part Number	Inductance		DCR		Isat		Irms	
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.	
SP16-2012AR24M	0.24	17.0	21.0	5.3	4.8	4.5	4.0	
SP16-2012AR33M	0.33	27.0	33.0	4.6	4.0	3.9	3.5	
SP16-2012AR47M	0.47	30.0	36.0	3.9	3.5	3.5	3.1	
SP16-2012AR68M	0.68	46.0	55.0	3.5	3.0	2.8	2.6	
SP16-2012A1R0M	1.00	60.0	72.0	2.9	2.5	2.4	2.2	
SP16-2012A1R5M	1.50	86.0	112.0	2.4	2.2	1.9	1.7	
SP16-2012A2R2M	2.20	146.0	186.0	2.0	1.65	1.5	1.35	

■ Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.

■ Test frequency and voltage:1MHz,1Vrms.

■ All test data referenced to 25°C 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°C.

SP16 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms	
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.
SP16-2012BR24M	0.24	15.0	19.0	6.5	5.6	5.2	4.4
SP16-2012BR33M	0.33	22.0	26.0	5.4	4.6	4.6	3.9
SP16-2012BR47M	0.47	25.0	30.0	4.5	3.8	4.0	3.4
SP16-2012BR68M	0.68	36.0	44.0	3.8	3.2	3.5	3.0
SP16-2012B1R0M	1.00	50.0	60.0	2.9	2.5	3.0	2.5
SP16-2012B1R5M	1.50	86.0	104.0	2.3	2.0	2.2	2.0
SP16-2012B2R2M	2.20	120.0	144.0	2.0	1.65	1.8	1.6

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms	
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.
SP16-2510AR22M	0.22	15.0	18.0	6.6	6.0	5.8	5.22
SP16-2510AR33M	0.33	18.0	26.0	5.3	4.77	4.4	4.0
SP16-2510AR47M	0.47	25.0	41.0	4.5	4.05	3.5	3.1
SP16-2510AR68M	0.68	40.0	48.0	4.3	3.6	3.3	3.0
SP16-2510A1R0M	1.00	49.0	65.0	3.55	3.2	2.8	2.52
SP16-2510A1R5M	1.50	76.0	95.0	2.9	2.4	2.2	1.98
SP16-2510A2R2M	2.20	110.0	121.0	2.4	2.1	1.8	1.62

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms	
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.
SP16-2510BR22M	0.22	15.0	17.0	8.5	7.0	6.5	5.5
SP16-2510BR33M	0.33	16.5	20.0	6.5	5.8	5.5	4.8
SP16-2510BR47M	0.47	23.0	29.0	5.5	5.0	4.1	3.6
SP16-2510BR68M	0.68	36.0	44.0	4.6	4.1	3.6	3.1
SP16-2510B1R0M	1.00	44.0	53.0	4.0	3.6	3.4	3.0
SP16-2510B1R5M	1.50	61.0	70.0	3.0	2.5	2.8	2.4
SP16-2510B2R2M	2.20	90.0	105.0	2.6	2.2	2.0	1.8

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:1MHz,1Vrms.
- All test data referenced to 25°C 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°C.

SP16 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms	
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.
SP16-2512AR22M	0.22	12.0	15.0	8.5	7.0	7.3	6.2
SP16-2512AR33M	0.33	15.0	17.0	5.8	5.22	5.5	4.95
SP16-2512AR47M	0.47	23.0	28.0	5.0	4.5	4.5	4.0
SP16-2512AR68M	0.68	34.0	40.0	4.3	3.7	3.8	3.3
SP16-2512A1R0M	1.00	42.0	55.0	3.8	3.3	3.1	2.7
SP16-2512A1R5M	1.50	61.0	70.0	2.9	2.61	2.7	2.43
SP16-2512A2R2M	2.20	92.0	105.0	2.5	2.2	2.3	2.0

Electrical Characteristic

Part Number	Inductance	DCR		Isat		Irms	
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Max.	(A)Typ.	(A)Max.
SP16-2512BR22M	0.22	11.0	13.0	8.5	7.0	10.0	8.0
SP16-2512BR33M	0.33	15.0	16.5	7.0	5.8	5.8	5.2
SP16-2512BR47M	0.47	20.0	25.0	6.0	5.0	4.8	4.2
SP16-2512BR68M	0.68	30.0	34.0	4.6	4.0	3.9	3.5
SP16-2512B1R0M	1.00	38.0	45.0	4.3	3.9	3.7	3.2
SP16-2512B1R5M	1.50	53.0	60.0	3.0	2.6	2.9	2.6
SP16-2512B2R2M	2.20	78.0	90.0	2.7	2.3	2.4	2.0

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:1MHz,1Vrms.
- All test data referenced to 25°C 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°C.

SC01 Series Coupled Inductors

Features

- Magnetically shielded construction
- Excellent coupling coefficient
- High inductance, low DCR and high current
- Available on tape and reel for auto surface mounting

Applications

- Power supplies
- Multi-output buck, SEPIC topology
- Cuk converter, etc.

Environmental Data

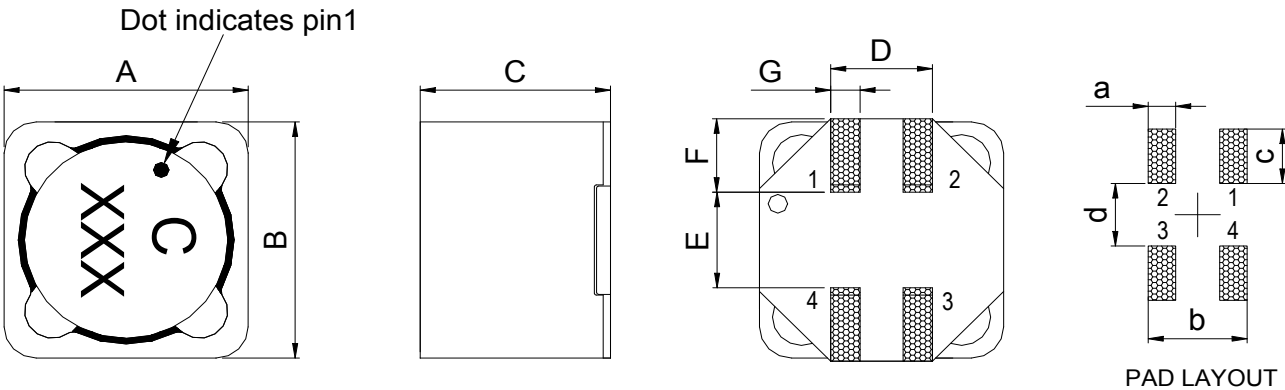
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- Winding to winding isolation 500Vrms
- RoHS&HF compliance



Packaging

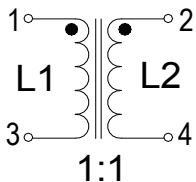
- Supplied in tape and reel packaging, 500pcs(SC01-1206), 400pcs(SC01-1208), 175pcs(SC01-1514), per 13-inch reel

Mechanical Dimension (Unit:mm/inches)



Type	A	B	C	D	E	F	G	a	b	c	d
				Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SC01-1206	12.2±0.3	12.2±0.3	6.0±0.3	5.0	5.0	3.5	1.7	2.1	5.4	4.0	4.5
	0.48±0.012	0.48±0.012	0.237±0.012	0.197	0.197	0.138	0.067	0.083	0.213	0.158	0.177
SC01-1208	12.2±0.3	12.2±0.3	7.8±0.3	5.0	5.0	3.5	1.7	2.1	5.4	4.0	4.5
	0.48±0.012	0.48±0.012	0.307±0.012	0.197	0.197	0.138	0.067	0.083	0.213	0.158	0.177
SC01-1514	15.5±0.5	15.5±0.5	14.2±0.3	5.6	8.2	3.3	1.9	2.3	6.0	4.2	7.9
	0.61±0.0197	0.61±0.0197	0.56±0.012	0.22	0.32	0.13	0.075	0.091	0.236	0.165	0.311

Electrical Schematic



Part Number Description

SC01 - 1206 4R7 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SC01 Series Coupled Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Max.	SRF (MHz)Typ.	LK (uH)Typ.	Isat (A)Typ.	Irms ¹ (A)Typ.	Irms ² (A)Typ.	Marking
SC01-12064R7M	4.7	36	32.0	0.20	10.3	3.16	4.47	C4R7
SC01-12065R6M	5.6	40	31.0	0.20	9.7	3.00	4.24	C5R6
SC01-12066R8M	6.8	48	28.0	0.24	9.2	2.75	3.88	C6R8
SC01-12068R2M	8.2	52	25.0	0.25	8.6	2.63	3.72	C8R2
SC01-1206100M	10	60	22.0	0.26	7.4	2.45	3.46	C100
SC01-1206120M	12	74	21.0	0.28	6.9	2.21	3.12	C120
SC01-1206150M	15	85	17.6	0.32	6.09	2.06	2.92	C150
SC01-1206180M	18	97	17.0	0.40	5.30	1.93	2.73	C180
SC01-1206220M	22	116	15.0	0.68	5.01	1.76	2.49	C220
SC01-1206270M	27	124	13.6	0.50	4.66	1.70	2.41	C270
SC01-1206330M	33	134	12.7	0.65	4.22	1.64	2.32	C330
SC01-1206390M	39	142	11.7	1.09	3.80	1.59	2.25	C390
SC01-1206470M	47	174	8.7	0.80	3.25	1.44	2.03	C470
SC01-1206560M	56	198	7.6	0.75	3.07	1.35	1.91	C560
SC01-1206680M	68	216	6.1	0.57	2.83	1.29	1.83	C680
SC01-1206820M	82	274	5.3	1.52	2.55	1.15	1.62	C820
SC01-1206101M	100	322	5.0	1.41	2.20	1.06	1.50	C101
SC01-1206121K	120	418	4.4	1.34	2.05	0.93	1.31	C121
SC01-1206151K	150	476	4.0	1.52	1.82	0.87	1.23	C151
SC01-1206181K	180	536	3.6	1.80	1.60	0.82	1.16	C181
SC01-1206221K	220	691	3.2	1.60	1.51	0.72	1.02	C221
SC01-1206271K	270	806	2.8	2.23	1.41	0.67	0.95	C271
SC01-1206331K	330	1090	2.5	2.39	1.28	0.57	0.81	C331
SC01-1206391K	390	1200	2.3	2.72	1.16	0.55	0.77	C391
SC01-1206471K	470	1590	2.1	2.89	1.00	0.48	0.67	C471
SC01-1206561K	560	1810	2.0	2.55	0.95	0.45	0.63	C561
SC01-1206681K	680	2060	1.8	5.76	0.88	0.42	0.59	C681
SC01-1206821K	820	2650	1.5	2.86	0.79	0.37	0.52	C821
SC01-1206102K	1000	3060	1.2	4.32	0.69	0.34	0.49	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms¹) will cause the coil temperature rise approximately Δt of 40°C(both windings).
- Heat rated current(Irms²) will cause the coil temperature rise approximately Δt of 40°C(one winding).

SC01 Series Coupled Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Max.	SRF (MHz)Typ.	LK (uH)Typ.	Isat (A)Typ.	Irms ¹ (A)Typ.	Irms ² (A)Typ.	Marking
SC01-12084R7M	4.7	38	32.0	0.22	14.9	3.16	4.47	C4R7
SC01-12085R6M	5.6	46	25.0	0.23	13.4	2.87	4.06	C5R6
SC01-12086R8M	6.8	48	24.0	0.22	13.1	2.81	3.98	C6R8
SC01-12088R2M	8.2	50	18.0	0.34	10.8	2.76	3.90	C8R2
SC01-1208100M	10	58	16.5	0.34	10.5	2.56	3.62	C100
SC01-1208120M	12	62	14.5	0.36	9.6	2.48	3.50	C120
SC01-1208150M	15	72	11.8	0.41	9.10	2.30	3.25	C150
SC01-1208180M	18	80	10.5	0.37	8.00	2.18	3.08	C180
SC01-1208220M	22	96	9.0	0.41	6.80	1.99	2.81	C220
SC01-1208270M	27	120	8.4	0.43	6.50	1.78	2.52	C270
SC01-1208330M	33	150	7.6	0.56	5.60	1.59	2.25	C330
SC01-1208390M	39	160	6.5	0.64	5.50	1.54	2.18	C390
SC01-1208470M	47	180	6.0	0.70	5.20	1.45	2.05	C470
SC01-1208560M	56	190	5.6	0.76	4.50	1.41	2.00	C560
SC01-1208680M	68	210	5.0	0.88	4.10	1.35	1.90	C680
SC01-1208820M	82	280	4.1	0.85	3.80	1.16	1.65	C820
SC01-1208101M	100	300	3.6	0.90	3.40	1.13	1.59	C101
SC01-1208121K	120	410	3.2	1.31	3.20	0.96	1.36	C121
SC01-1208151K	150	460	3.0	1.46	2.80	0.91	1.29	C151
SC01-1208181K	180	510	2.7	0.93	2.50	0.86	1.22	C181
SC01-1208221K	220	690	2.5	1.54	2.30	0.74	1.05	C221
SC01-1208271K	270	900	2.1	1.17	2.10	0.65	0.92	C271
SC01-1208331K	330	1020	2.0	4.14	1.90	0.61	0.86	C331
SC01-1208391K	390	1120	1.8	1.64	1.70	0.58	0.82	C391
SC01-1208471K	470	1430	1.6	0.25	1.60	0.50	0.70	C471
SC01-1208561K	560	1690	1.5	2.68	1.50	0.47	0.67	C561
SC01-1208681K	680	2290	1.4	2.11	1.30	0.41	0.58	C681
SC01-1208821K	820	2550	1.3	2.39	1.20	0.39	0.55	C821
SC01-1208102K	1000	2830	1.1	4.28	1.10	0.37	0.52	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms¹) will cause the coil temperature rise approximately Δt of 40°C(both windings).
- Heat rated current(Irms²) will cause the coil temperature rise approximately Δt of 40°C(one winding).

SC01 Series Coupled Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Max.	SRF (MHz)Typ.	LK (uH)Typ.	Isat (A)Typ.	Irms ¹ (A)Typ.	Irms ² (A)Typ.	Marking
SC01-15142R5M	2.5	12	34.0	0.20	30.5	5.10	7.80	C2R5
SC01-15144R7M	4.7	14	25.0	0.20	23.7	4.50	7.60	C4R7
SC01-1514100M	10	18	16.5	0.40	16.2	4.00	6.80	C100
SC01-1514120M	12	22	14.5	0.40	14.8	3.70	6.60	C120
SC01-1514150M	15	28	11.0	0.42	13.3	3.40	5.80	C150
SC01-1514220M	22	36	10.0	0.45	11.0	3.00	5.10	C220
SC01-1514270M	27	39	8.50	0.45	9.90	2.95	4.70	C270
SC01-1514330M	33	52	7.20	0.45	9.00	2.55	3.90	C330
SC01-1514470M	47	75	5.60	0.55	7.50	2.20	3.45	C470
SC01-1514680M	68	90	5.20	0.55	6.20	2.00	3.20	C680
SC01-1514101K	100	126	3.80	0.55	5.15	1.65	2.50	C101
SC01-1514221K	220	287	2.30	0.70	3.50	1.10	1.70	C221
SC01-1514331K	330	367	2.10	0.80	2.83	0.98	1.55	C331
SC01-1514471K	470	550	1.65	1.20	2.40	0.77	1.30	C471
SC01-1514102K	1000	1250	1.10	2.00	1.63	0.55	0.77	C102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms¹) will cause the coil temperature rise approximately Δt of 40°C(both windings).
- Heat rated current(Irms²) will cause the coil temperature rise approximately Δt of 40°C(one winding).

SPA01 Series Shielded Power Inductors



Features

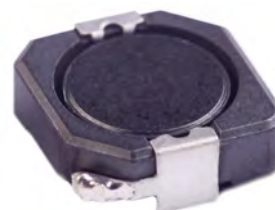
- AEC-Q200 qualified
- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current

Applications

- Automotive application
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Other various electronic appliances

Environmental Data

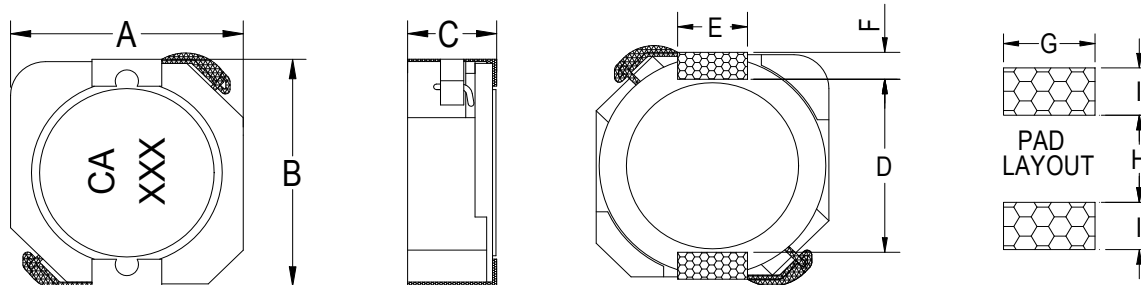
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

- Supplied in tape and reel packaging, 1200pcs(SPA01-1003), 1000pcs(SPA01-1004), 750pcs(SPA01-1005), per 13-inch reel

Mechanical Dimension (Unit:mm/inches)



Type	A Max.	B Max.	C Max.	D Nom.	E Nom.	F Nom.	G Nom.	H Nom.	I Nom.
SPA01-1003	10.3/.406	10.5/.413	3.0/.118	7.9/.311	3.0/.118	1.2/.047	3.6/.142	7.3/.287	1.7/.067
SPA01-1004	10.3/.406	10.5/.413	4.0/.158	7.9/.311	3.0/.118	1.2/.047	3.6/.142	7.3/.287	1.7/.067
SPA01-1005	10.3/.406	10.5/.413	5.0/.197	7.9/.311	3.0/.118	1.2/.047	3.6/.142	7.3/.287	1.7/.067

Electrical Schematic



Part Number Description

SPA01 - 1003 R80 N
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SPA01 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Test Freq. (KHz)	DC Resistance (m Ω)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SPA01-1003R80N	0.8	100	5.7	9.00	6.50	CAR80
SPA01-10031R5N	1.5	100	11.0	7.00	4.20	CA1R5
SPA01-10032R2N	2.2	100	16.9	5.80	4.05	CA2R2
SPA01-10033R3N	3.3	100	21.0	4.60	3.80	CA3R3
SPA01-10034R7N	4.7	100	30.0	4.00	3.30	CA4R7
SPA01-10036R8N	6.8	100	35.0	3.20	3.15	CA6R8
SPA01-10038R2N	8.2	100	50.0	3.00	2.50	CA8R2
SPA01-1003100N	10	100	58.1	2.70	2.40	CA100
SPA01-1003120M	12	100	72.1	2.40	2.10	CA120
SPA01-1003150M	15	100	86.5	2.20	2.05	CA150
SPA01-1003180M	18	100	116.1	2.00	1.50	CA180
SPA01-1003220M	22	100	143.0	1.80	1.20	CA220
SPA01-1003270M	27	100	175.9	1.65	1.15	CA270
SPA01-1003330M	33	100	202.0	1.48	1.10	CA330
SPA01-1003390M	39	100	268.9	1.35	1.00	CA390
SPA01-1003470M	47	100	299.0	1.20	0.90	CA470
SPA01-1003560M	56	100	325.0	1.15	0.78	CA560
SPA01-1003680M	68	100	429.0	1.05	0.68	CA680
SPA01-1003820M	82	100	494.0	0.95	0.63	CA820
SPA01-1003101M	100	100	683.0	0.85	0.56	CA101
SPA01-1003121K	120	100	754.0	0.76	0.53	CA121
SPA01-1003151K	150	100	871.0	0.70	0.51	CA151

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SPA01 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Test Freq. (KHz)	DC Resistance (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	SRF (MHz)Typ.	Marking
SPA01-10041R0N	1.0	100	6.0	12.1	10.0	138	CA1R0
SPA01-10041R5N	1.5	100	8.1	11.06	7.85	81	CA1R5
SPA01-10042R5N	2.5	100	10	9.26	6.65	61	CA2R5
SPA01-10043R8N	3.8	100	13	7.64	6.05	45	CA3R8
SPA01-10045R2N	5.2	100	22	6.14	5.10	37	CA5R2
SPA01-10047R0N	7.0	100	27	5.60	4.35	33	CA7R0
SPA01-1004100N	10	100	35	4.52	4.05	29	CA100
SPA01-1004120M	12	100	41	4.04	4.00	25	CA120
SPA01-1004150M	15	100	50	3.86	3.80	21	CA150
SPA01-1004180M	18	100	65	3.52	3.35	18	CA180
SPA01-1004220M	22	100	73	3.30	2.85	15	CA220
SPA01-1004270M	27	100	89	2.84	2.35	15	CA270
SPA01-1004330M	33	100	93	2.62	2.30	13	CA330
SPA01-100390M	39	100	112	2.34	2.25	12	CA390
SPA01-1004470M	47	100	128	2.22	2.20	11	CA470
SPA01-1004560M	56	100	180	2.04	1.85	11	CA560
SPA01-1004680M	68	100	213	1.82	1.75	10	CA680
SPA01-1004820M	82	100	261	1.60	1.50	8	CA820
SPA01-1004101M	100	100	304	1.46	1.45	6	CA101
SPA01-1004121K	120	100	380	1.34	1.25	6	CA121
SPA01-1004151K	150	100	506	1.22	1.20	6	CA151
SPA01-1004181K	180	100	582	1.16	0.98	5	CA181
SPA01-1004221K	220	100	756	0.99	0.97	5	CA221
SPA01-1004271K	270	100	926	0.91	0.86	4	CA271
SPA01-1004331K	330	100	1090	0.82	0.69	4	CA331
SPA01-1004391K	390	100	1141	0.74	0.65	4	CA391
SPA01-1004471K	470	100	1243	0.70	0.63	3	CA471
SPA01-1004561K	560	100	1696	0.56	0.59	3	CA561
SPA01-1004681K	680	100	1926	0.52	0.50	3	CA681
SPA01-1004821K	820	100	2596	0.49	0.47	3	CA821
SPA01-1004102K	1000	100	2853	0.46	0.45	3	CA102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SPA01 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	Test Freq. (KHz)	DC Resistance (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	SRF (MHz)Typ.	Marking
SPA01-1005R68N	0.68	100	5.5	13.5	9.50	110	CA68
SPA01-10051R2N	1.2	100	7.0	10.5	8.30	85	CA1R2
SPA01-10052R2N	2.2	100	9.0	8.20	7.20	53	CA2R2
SPA01-10053R3N	3.3	100	11	7.80	6.50	40	CA3R3
SPA01-10054R2N	4.2	100	14	6.40	6.10	29	CA4R2
SPA01-10056R8N	6.8	100	19	5.40	5.40	27	CA6R8
SPA01-10058R2N	8.2	100	22	4.85	5.00	21	CA8R2
SPA01-1005100N	10	100	31	4.45	4.50	16.5	CA100
SPA01-1005120M	12	100	35	4.00	3.80	15	CA120
SPA01-1005150M	15	100	47	3.60	3.40	14	CA150
SPA01-1005180M	18	100	51	3.20	3.10	11.0	CA180
SPA01-1005220M	22	100	62	2.95	2.90	10.5	CA220
SPA01-1005270M	27	100	77	2.70	2.60	10.0	CA270
SPA01-1005330M	33	100	93	2.40	2.50	9.0	CA330
SPA01-1005390M	39	100	106	2.30	2.25	6.8	CA390
SPA01-1005470M	47	100	127	2.00	2.00	5.9	CA470
SPA01-1005560M	56	100	160	1.90	1.90	5.5	CA560
SPA01-1005680M	68	100	208	1.65	1.60	5.0	CA680
SPA01-1005820M	82	100	230	1.50	1.45	4.5	CA820
SPA01-1005101M	100	100	255	1.35	1.35	4.2	CA101
SPA01-1005121K	120	100	305	1.28	1.18	3.8	CA121
SPA01-1005151K	150	100	370	1.12	1.10	3.6	CA151
SPA01-1005181K	180	100	420	1.04	1.00	3.4	CA181
SPA01-1005221K	220	100	500	0.94	0.94	3.0	CA221
SPA01-1005271K	270	100	675	0.84	0.80	2.4	CA271
SPA01-1005331K	330	100	815	0.75	0.73	2.0	CA331

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SPA02 Series Shielded Power Inductors



Features

- AEC-Q200 qualified
- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Other various electronic appliances

Environmental Data

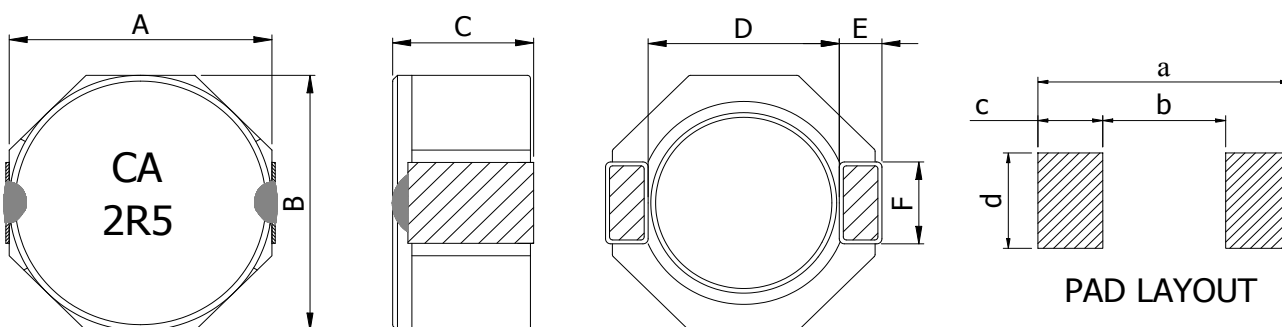
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

- Supplied in tape and reel packaging,
1500pcs(SPA02-8028), 1200pcs(SPA02-8038),
1000pcs(SPA02-8043), 800pcs(SPA02-8058), per 13-inch reel

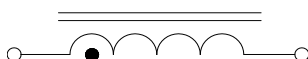


Mechanical Dimension (Unit:mm/inches)



Type	A	B	C	D	E	F	a	b	c	d
			Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SPA02-8028	8.0±0.3	8.0±0.3	3.1	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.122	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SPA02-8038	8.0±0.3	8.0±0.3	4.0	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.157	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SPA02-8043	8.0±0.3	8.0±0.3	4.5	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.177	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SPA02-8058	8.0±0.3	8.0±0.3	6.0	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.236	0.248	0.047	0.099	0.398	0.240	0.079	0.110

Electrical Schematic



Part Number Description

SPA02 - 8028 2R5 N

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SPA02 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SPA02-80282R5N	2.5	17.0	22.0	5.00	4.80	CA2R5
SPA02-80283R3N	3.3	22.0	28.0	4.50	4.20	CA3R3
SPA02-80284R7N	4.7	26.0	33.8	3.80	3.70	CA4R7
SPA02-80287R3N	7.3	40.0	52.0	3.00	3.20	CA7R3
SPA02-8028100M	10	55.0	71.0	2.70	2.35	CA100
SPA02-8028150M	15	70.0	91.0	2.20	1.85	CA150
SPA02-8028220M	22	105	135	1.80	1.45	CA220
SPA02-8028330M	33	160	208	1.50	1.30	CA330
SPA02-8028470M	47	210	273	1.25	1.00	CA470
SPA02-8028680M	68	310	403	1.00	0.90	CA680
SPA02-8028101M	100	410	533	0.90	0.75	CA101
SPA02-8028151M	150	630	820	0.75	0.65	CA151
SPA02-8028181M	180	680	880	0.65	0.55	CA181
SPA02-8028221M	220	870	1120	0.55	0.50	CA221

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SPA02-80381R8N	1.8	12.0	15.6	7.00	6.80	CA1R8
SPA02-80382R5N	2.5	14.0	17.5	6.50	6.00	CA2R5
SPA02-80383R5N	3.5	17.0	24.0	5.00	5.20	CA3R5
SPA02-80384R7N	4.7	22.0	29.0	4.60	4.40	CA4R7
SPA02-80386R0N	6.0	24.0	32.0	4.20	4.00	CA6R0
SPA02-8038100M	10	43.0	48.0	3.00	3.20	CA100
SPA02-8038150M	15	61.0	67.0	2.75	2.50	CA150
SPA02-8038220M	22	86.0	105	2.30	2.00	CA220
SPA02-8038330M	33	128	157	1.75	1.60	CA330
SPA02-8038470M	47	163	189	1.52	1.42	CA470
SPA02-8038680M	68	232	290	1.30	1.08	CA680
SPA02-8038101M	100	355	410	1.05	0.88	CA101

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 35%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SPA02 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SPA02-80431R2N	1.2	9.0	12.2	8.0	6.2	CA1R2
SPA02-80432R0N	2.0	11	14.0	7.0	5.5	CA2R0
SPA02-80433R3N	3.3	13	17.0	6.2	5.0	CA3R3
SPA02-80433R9N	3.9	15	19.0	5.9	4.5	CA3R9
SPA02-80434R7N	4.7	17	22.0	5.6	4.1	CA4R7
SPA02-80436R8N	6.8	23	30.0	4.4	3.9	CA6R8
SPA02-8043100M	10	29	36.0	4.0	3.2	CA100
SPA02-8043150M	15	42	53.0	2.9	2.3	CA150
SPA02-8043220M	22	60	75.0	2.6	1.8	CA220
SPA02-8043330M	33	100	125	2.2	1.4	CA330
SPA02-8043470M	47	140	180	1.8	1.3	CA470
SPA02-8043680M	68	190	240	1.5	1.0	CA680
SPA02-8043101M	100	290	360	1.3	0.8	CA101

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SPA02-80582R8N	2.8	12.0	15.0	4.7	6.9	CA2R8
SPA02-80583R9N	3.9	13.0	16.3	4.1	6.3	CA3R9
SPA02-80585R0N	5.0	14.0	17.5	3.8	6.0	CA5R0
SPA02-80586R2N	6.2	16.0	20.0	3.3	5.5	CA6R2
SPA02-8058100M	10	22.0	25.6	2.6	4.5	CA100
SPA02-8058150M	15	27.0	36.3	2.3	3.6	CA150
SPA02-8058220M	22	39.0	45.3	1.7	3.3	CA220
SPA02-8058330M	33	52.0	65.3	1.5	2.7	CA330
SPA02-8058470M	47	75.0	90.5	1.2	2.2	CA470
SPA02-8058680M	68	104	130	1.0	1.7	CA680
SPA02-8058101M	100	140	175	0.8	1.4	CA101

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 35%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

SPA03 Series Shielded Power Inductors



Features

- AEC-Q200 qualified
- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Buck, boost, forward, and resonant converters

Environmental Data

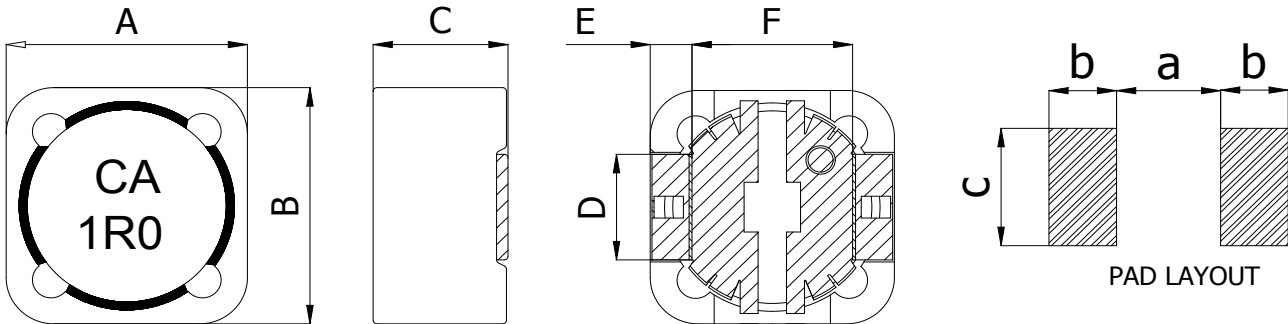
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

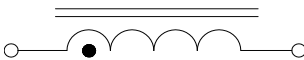
- Supplied in tape and reel packaging, 500pcs(SPA03-1206), 400pcs(SPA03-1208), per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A	B	C	D	E	F	a	b	c
SPA03-1206	12.3±0.3	12.3±0.3	6.0	4.9	2.0	7.9	6.1	3.85	5.5
	0.484±0.012	0.484±0.012	0.236	0.193	0.079	0.311	0.24	0.151	0.217
SPA03-1208	12.3±0.3	12.3±0.3	8.0	4.9	2.0	7.9	6.1	3.85	5.5
	0.484±0.012	0.484±0.012	0.315	0.193	0.079	0.311	0.24	0.151	0.217

Electrical Schematic



Part Number Description

SPA03 - 1206 1R0 N

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SPA03 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SPA03-12061R0N	1.0	2.4	3.1	23.6	15.0	CA1R0
SPA03-12061R5N	1.5	2.9	3.8	18.3	13.8	CA1R5
SPA03-12062R2N	2.2	4.5	5.9	15.0	10.9	CA2R2
SPA03-12063R3M	3.3	6.3	8.2	12.7	9.26	CA3R3
SPA03-12064R7M	4.7	10.5	13.7	9.71	7.18	CA4R7
SPA03-12066R8M	6.8	12.3	16.0	8.68	6.64	CA6R8
SPA03-12068R2M	8.2	17.6	22.9	7.86	5.54	CA8R2
SPA03-1206100M	10	18.9	24.6	7.17	5.35	CA100
SPA03-1206150M	15	29.8	38.7	5.69	4.27	CA150
SPA03-1206180M	18	37.7	49.0	5.32	3.81	CA180
SPA03-1206220M	22	39.6	51.5	4.71	3.70	CA220
SPA03-1206330M	33	50.5	65.7	3.84	3.28	CA330
SPA03-1206470M	47	74	96	3.24	2.71	CA470
SPA03-1206560M	56	102	133	3.00	2.31	CA560
SPA03-1206680M	68	101	131	2.70	2.22	CA680
SPA03-1206820M	82	128	166	2.39	2.05	CA820
SPA03-1206101M	100	170	221	2.20	1.78	CA101
SPA03-1206151M	150	248	322	1.81	1.48	CA151
SPA03-1206221M	220	384	499	1.51	1.19	CA221
SPA03-1206331M	330	482	627	1.22	1.06	CA331
SPA03-1206471M	470	718	933	1.02	0.87	CA471
SPA03-1206681M	680	1100	1430	0.85	0.70	CA681
SPA03-1206821M	820	1490	1937	0.77	0.60	CA821
SPA03-1206102K	1000	1690	2197	0.70	0.57	CA102
SPA03-1206472K	4700	7530	9789	0.32	0.268	CA472
SPA03-1206124K	120000	150000	195000	0.069	0.060	CA124

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SPA03 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Typ.	Irms (A)Typ.	Marking
SPA03-12081R0N	1.0	3.13	4.07	40.0	15.5	CA1R0
SPA03-12081R5N	1.5	3.41	4.43	31.1	13.5	CA1R5
SPA03-12082R2N	2.2	4.02	5.23	25.5	12.5	CA2R2
SPA03-12083R3M	3.3	5.67	7.37	21.5	10.5	CA3R3
SPA03-12084R7M	4.7	9.17	11.92	16.5	8.25	CA4R7
SPA03-12086R8M	6.8	11.6	15.1	13.3	7.34	CA6R8
SPA03-12088R2M	8.2	15.7	20.4	12.2	6.32	CA8R2
SPA03-1208100M	10	17.2	22.4	11.2	6.04	CA100
SPA03-1208150M	15	24.7	32.1	9.66	5.03	CA150
SPA03-1208220M	22	39.1	50.8	7.57	4.00	CA220
SPA03-1208330M	33	60.0	78.0	6.22	3.23	CA330
SPA03-1208470M	47	71.9	93.5	5.28	2.95	CA470
SPA03-1208680M	68	105	137	4.44	2.44	CA680
SPA03-1208820M	82	143	186	4.06	2.09	CA820
SPA03-1208101M	100	163	212	3.64	1.96	CA101
SPA03-1208151M	150	247	321	3.01	1.59	CA151
SPA03-1208221M	220	376	489	2.43	1.29	CA221
SPA03-1208331M	330	574	746	2.01	1.04	CA331
SPA03-1208471M	470	861	1119	1.68	0.85	CA471
SPA03-1208681M	680	1080	1404	1.39	0.76	CA681
SPA03-1208821M	820	1470	1911	1.27	0.65	CA821
SPA03-1208102K	1000	1660	2158	1.14	0.61	CA102

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SPA04 Series Shielded Power Inductors



Features

- AEC-Q200 qualified
- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Buck, boost, forward, and resonant converters

Environmental Data

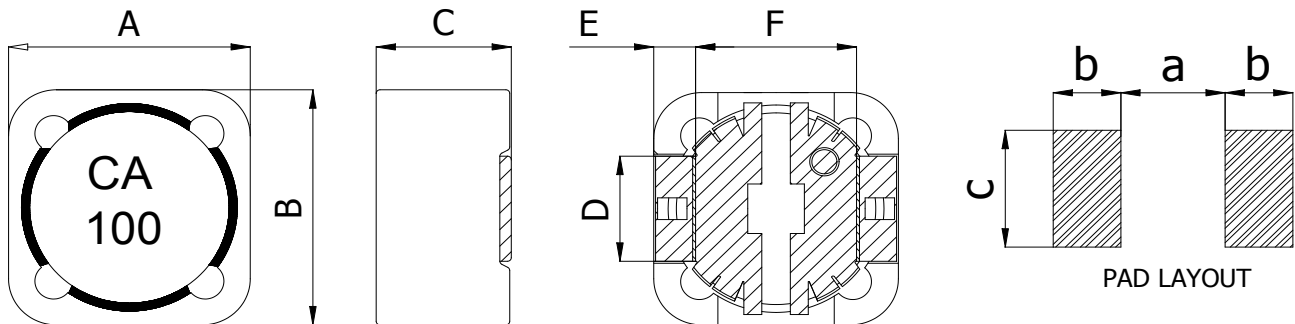
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

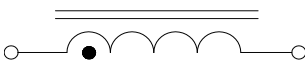
- Supplied in tape and reel packaging, 350pcs(SPA04-1508), 175pcs(SPA04-1514), per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A	B	C	D	E	F	a	b	c
SPA04-1508	15.0±0.5	15.0±0.5	8.6	4.9	2.45	9.9	9.4	3.0	5.4
	0.59±0.02	0.59±0.02	0.339	0.193	0.096	0.39	0.37	0.118	0.213
SPA04-1514	15.0±0.5	15.0±0.5	14.5	4.9	2.45	9.9	9.4	3.0	5.4
	0.59±0.02	0.59±0.02	0.57	0.193	0.096	0.39	0.37	0.118	0.213

Electrical Schematic



Part Number Description

SPA04 - 1508 100 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SPA04 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω)Typ.	DCR (Ω)Max.	SRF (MHz)Typ.	Isat (A)Typ.	Irms (A)Typ.	Marking
SPA04-1508100M	10	0.012	0.014	17.0	14.7	7.40	CA100
SPA04-1508120M	12	0.014	0.017	14.5	14.2	6.30	CA120
SPA04-1508150M	15	0.018	0.021	13.5	12.4	6.10	CA150
SPA04-1508180M	18	0.020	0.023	12.0	11.2	5.50	CA180
SPA04-1508220M	22	0.023	0.026	10.5	10.4	5.30	CA220
SPA04-1508330M	33	0.033	0.038	8.5	8.60	4.80	CA330
SPA04-1508470M	47	0.048	0.055	7.3	7.30	3.70	CA470
SPA04-1508680M	68	0.061	0.070	6.0	6.00	3.40	CA680
SPA04-1508101K	100	0.090	0.103	4.8	4.80	2.80	CA101
SPA04-1508151K	150	0.138	0.159	3.7	3.90	2.20	CA151
SPA04-1508221K	220	0.205	0.235	3.0	3.30	1.80	CA221
SPA04-1508331K	330	0.300	0.345	2.7	2.50	1.45	CA331
SPA04-1508471K	470	0.386	0.445	2.2	2.20	1.35	CA471
SPA04-1508681K	680	0.570	0.655	1.8	1.80	1.10	CA681
SPA04-1508821K	820	0.640	0.736	1.6	1.60	1.00	CA821
SPA04-1508102K	1000	0.860	0.990	1.5	1.40	0.86	CA102

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

SPA04 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω)Typ.	DCR (Ω)Max.	SRF (MHz)Typ.	Isat (A)Typ.	Irms (A)Typ.	Marking
SPA04-15142R5M	2.5	0.005	0.007	34.0	30.5	7.80	CA2R5
SPA04-15144R7M	4.7	0.006	0.008	25.0	23.7	7.60	CA4R7
SPA04-1514100M	10	0.007	0.009	16.5	16.2	6.80	CA100
SPA04-1514120M	12	0.009	0.012	14.5	14.8	6.60	CA120
SPA04-1514150M	15	0.012	0.015	11.0	13.3	5.80	CA150
SPA04-1514220M	22	0.015	0.018	10.0	11.0	5.10	CA220
SPA04-1514270M	27	0.017	0.022	8.50	9.90	4.70	CA270
SPA04-1514330M	33	0.022	0.026	7.20	9.00	3.90	CA330
SPA04-1514470M	47	0.032	0.038	5.60	7.50	3.45	CA470
SPA04-1514680M	68	0.039	0.045	5.20	6.20	3.20	CA680
SPA04-1514101K	100	0.058	0.064	3.80	5.15	2.50	CA101
SPA04-1514221K	220	0.130	0.145	2.30	3.50	1.70	CA221
SPA04-1514331K	330	0.167	0.185	2.10	2.83	1.55	CA331
SPA04-1514471K	470	0.250	0.275	1.65	2.40	1.30	CA471
SPA04-1514102K	1000	0.560	0.625	1.10	1.63	0.77	CA102

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 30% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

DP01 Series Unshielded Power Inductors

Features

- Unshielded, leaded drum core
- High current output, Low DCR
- Wide range of inductance

Applications

- High power supplies
- Power amplifiers
- SCR and TRIAC controls
- Speaker crossover networks and filters

Environmental Data

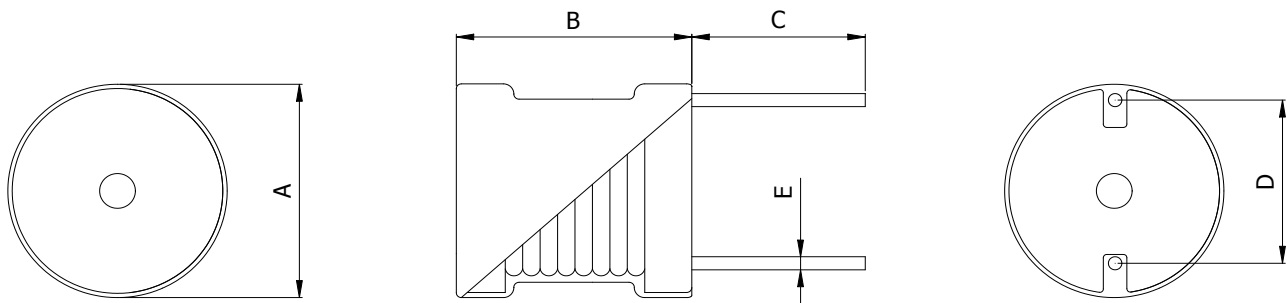
- Storage temperature range: -55°C to + 130°C
- Operating temperature range: -55°C to + 130°C
(including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance



Packaging

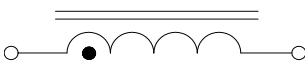
- Tray and carton box packaging

Mechanical Dimension (Unit: mm/inches)



Type	A Max.	B Max.	C	D Nom.	E Nom.
DP01-1721	16.8 0.662	21.3 0.839	5.0±1.0 0.197±0.04	See below table	
DP01-2122	21.0 0.827	21.5 0.847	5.0±1.0 0.197±0.04	See below table	
DP01-2627	26.0 1.024	27.0 1.063	5.0±1.0 0.197±0.04	See below table	
DP01-4128	40.5 1.60	28.0 1.103	5.0±1.0 0.197±0.04	See below table	
DP01-4138	40.5 1.60	38.0 1.50	5.0±1.0 0.197±0.04	See below table	
DP01-5038	50.0 1.97	38.0 1.50	5.0±1.0 0.197±0.04	See below table	

Electrical Schematic



Part Number Description

DP01 - 1721 100 M
① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

DP01 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance		DCR		Isat (A)Typ.	Irms (A)Typ.	D mm/inches	E mm/inches
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(mΩ)Max.				
DP01-1721100M	10	6.8	8.2	28.0	9.0	13.97/0.55	1.40/0.055	
DP01-1721150M	15	10.2	12.2	24.0	7.2	12.70/0.50	1.20/0.047	
DP01-1721220M	22	17.4	21.0	20.0	5.5	12.70/0.50	1.00/0.040	
DP01-1721330M	33	26.1	31.3	16.0	4.0	10.43/0.41	0.85/0.034	
DP01-1721470M	47	45.8	55.0	13.5	2.8	11.91/0.47	0.70/0.028	
DP01-1721680M	68	63.0	75.6	11.0	2.8	12.70/0.50	0.65/0.026	
DP01-1721101K	100	77.4	93.0	9.0	2.8	12.70/0.50	0.65/0.026	
DP01-1721151K	150	112.4	135.0	7.5	1.6	12.20/0.48	0.60/0.024	
DP01-1721221K	220	151.7	182.0	4.8	1.6	12.20/0.48	0.60/0.024	
DP01-1721331K	330	246.2	296.0	4.5	1.3	12.20/0.48	0.50/0.020	
DP01-1721471K	470	361.9	435.0	4.2	0.8	11.43/0.45	0.45/0.018	
DP01-1721561K	560	392.1	471.0	3.7	0.8	11.43/0.45	0.45/0.018	

Electrical Characteristic

Part Number	Inductance		DCR		Isat (A)Typ.	Irms (A)Typ.	D mm/inches	E mm/inches
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(mΩ)Max.				
DP01-2122100M	10	6.1	7.0	33.0	11.4	15.75/0.620	1.50/0.059	
DP01-2122150M	15	7.8	9.0	29.0	9.0	15.88/0.625	1.40/0.055	
DP01-2122220M	22	12.4	14.5	24.0	7.2	16.00/0.630	1.20/0.047	
DP01-2122330M	33	18.8	22.0	19.0	5.5	13.87/0.546	1.10/0.044	
DP01-2122390M	39	20.7	24.0	18.0	5.5	15.10/0.595	1.10/0.044	
DP01-2122470M	47	27.3	31.5	16.5	5.5	15.88/0.625	1.00/0.040	
DP01-2122560M	56	29.3	34.0	14.5	5.5	15.88/0.625	1.00/0.040	
DP01-2122680M	68	32.8	38.0	14.0	4.8	16.66/0.656	1.00/0.040	
DP01-2122820M	82	38.0	44.0	13.0	4.8	16.66/0.656	1.00/0.040	
DP01-2122101K	100	60.5	70.0	11.5	4.0	15.06/0.593	0.80/0.032	
DP01-2122151K	150	74.6	86.0	9.0	4.0	15.06/0.593	0.80/0.032	
DP01-2122221K	220	93.4	107.5	8.0	2.8	15.06/0.593	0.80/0.032	
DP01-2122331K	330	185.7	214.0	6.0	1.6	15.00/0.591	0.60/0.024	
DP01-2122471K	470	231.8	267.0	5.2	1.6	15.00/0.591	0.60/0.024	
DP01-2122561K	560	255.5	294.0	4.7	1.6	15.00/0.591	0.60/0.024	
DP01-2122681K	680	286.9	330.0	4.2	1.6	15.00/0.591	0.60/0.024	
DP01-2122821K	820	425.8	490.0	4.0	1.3	15.00/0.591	0.50/0.020	
DP01-2122102K	1000	486.4	560.0	3.6	1.0	15.00/0.591	0.50/0.020	
DP01-2122122K	1200	545.8	628.0	3.2	0.8	15.00/0.591	0.50/0.020	
DP01-2122152K	1500	626.1	720.0	2.9	0.8	15.00/0.591	0.50/0.020	
DP01-2122182K	1800	703.8	809.5	2.3	0.8	15.00/0.591	0.50/0.020	
DP01-2122222K	2200	927.0	1067	2.2	0.8	15.00/0.591	0.45/0.018	

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:10KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 5%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 20°C.

DP01 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-2627470M	47	15.20	18.0	25.0	9.0	19.00/0.750	1.40/0.055
DP01-2627680M	68	22.08	26.0	21.0	9.0	19.00/0.750	1.30/0.051
DP01-2627101K	100	28.38	33.0	17.0	9.0	19.80/0.780	1.30/0.051
DP01-2627151K	150	45.16	52.0	13.5	5.5	19.80/0.780	1.10/0.043
DP01-2627221K	220	66.85	77.0	12.0	5.5	19.80/0.780	1.00/0.039
DP01-2627331K	330	95.80	110.5	9.5	4.5	20.60/0.811	0.90/0.036
DP01-2627471K	470	134.50	155.0	8.0	4.0	19.00/0.750	0.85/0.034
DP01-2627681K	680	182.80	210.5	6.5	2.8	18.20/0.717	0.80/0.032
DP01-2627102K	1000	295.50	340.0	5.6	2.0	19.00/0.750	0.70/0.028
DP01-2627152K	1500	402.60	463.0	4.5	2.0	19.00/0.750	0.65/0.026
DP01-2627222K	2200	658.30	757.0	3.6	1.3	19.50/0.768	0.55/0.022
DP01-2627332K	3300	853.78	982.0	3.1	1.3	19.00/0.750	0.55/0.022
DP01-2627472K	4700	1242.5	1429	2.5	1.0	19.00/0.750	0.50/0.020

Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-4128470M	47	12.77	15.0	40.0	14.4	28.96/1.140	1.70/0.067
DP01-4128560M	56	13.99	16.5	38.0	14.4	28.96/1.140	1.70/0.067
DP01-4128680M	68	15.47	18.0	35.0	14.4	28.96/1.140	1.70/0.067
DP01-4128101K	100	18.87	22.0	28.5	14.4	28.96/1.140	1.70/0.067
DP01-4128151K	150	28.86	33.5	24.0	11.4	28.57/1.125	1.50/0.060
DP01-4128221K	220	38.23	44.0	19.5	11.4	28.57/1.125	1.50/0.060
DP01-4128271K	270	47.45	55.0	16.0	11.4	29.36/1.156	1.40/0.055
DP01-4128391K	390	73.77	85.0	12.0	9.0	30.15/1.187	1.20/0.047
DP01-4128561K	560	96.71	111.5	11.0	7.2	28.57/1.125	1.15/0.045
DP01-4128821K	820	136.0	156.5	10.0	7.2	30.15/1.187	1.10/0.043
DP01-4128102K	1000	177.1	204.0	9.5	5.5	26.97/1.062	1.00/0.040
DP01-4128152K	1500	229.2	264.0	7.5	4.5	29.36/1.156	1.00/0.040
DP01-4128222K	2200	390.0	449.0	5.5	4.0	26.97/1.062	0.80/0.032
DP01-4128332K	3300	516.1	594.0	5.0	2.8	26.97/1.062	0.80/0.032
DP01-4128472K	4700	784.3	902.0	4.0	2.0	28.19/1.110	0.70/0.028
DP01-4128682K	6800	1237.5	1424.0	3.5	1.6	28.19/1.110	0.60/0.024
DP01-4128103K	10000	2051.5	2360.0	2.8	1.3	29.46/1.160	0.50/0.020
DP01-4128153K	15000	2612.0	3004.0	1.9	1.3	29.46/1.160	0.50/0.020

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:10KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 5%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 20°C.

DP01 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-4138221K	220	29.2	34.0	21.5	13.5	27.9/1.098	1.70/0.067
DP01-4138331K	330	37.8	44.0	18.0	13.5	28.2/1.110	1.70/0.067
DP01-4138471K	470	58.4	67.5	14.5	11.4	27.2/1.071	1.50/0.059
DP01-4138681K	680	78.7	91.0	11.0	9.0	27.2/1.071	1.40/0.055
DP01-4138102K	1000	127.8	147.0	10.0	7.2	28.5/1.122	1.20/0.047
DP01-4138152K	1500	181.0	208.5	7.4	5.5	28.5/1.122	1.10/0.044
DP01-4138222K	2200	270.3	311.0	6.7	5.5	29.5/1.162	1.00/0.040
DP01-4138332K	3300	392.7	452.0	5.2	4.0	28.9/1.138	0.90/0.036
DP01-4138472K	4700	538.1	619.0	4.2	4.0	28.9/1.138	0.85/0.034
DP01-4138682K	6800	754.8	868.5	3.8	2.8	26.9/1.059	0.80/0.032
DP01-4138103K	10000	1197.5	1377.5	3.1	2.0	28.7/1.130	0.70/0.028
DP01-4138153K	15000	1521.3	1750.0	2.6	1.8	28.7/1.130	0.70/0.028

Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-5038681K	680	66.50	76.5	14.0	11.4	36.0/1.418	1.50/0.059
DP01-5038122K	1200	128.20	147.5	11.0	9.0	34.5/1.358	1.30/0.052
DP01-5038182K	1800	185.70	214.0	8.5	7.2	33.5/1.319	1.20/0.048
DP01-5038222K	2200	222.50	256.0	7.6	7.2	35.5/1.398	1.20/0.048
DP01-5038272K	2700	268.70	309.0	7.2	5.5	34.5/1.358	1.10/0.044
DP01-5038392K	3900	398.70	459.0	6.0	4.5	34.5/1.358	1.00/0.040
DP01-5038562K	5600	488.50	562.0	5.5	4.5	34.5/1.358	1.00/0.040
DP01-5038103K	10000	818.40	941.5	3.7	4.0	36.8/1.449	0.90/0.036
DP01-5038123K	12000	1089.10	1253.0	3.3	2.8	35.5/1.398	0.80/0.032
DP01-5038153K	15000	1246.8	1434.0	3.0	2.8	35.5/1.398	0.80/0.032
DP01-5038183K	18000	1697.0	1952.0	2.8	2.7	35.5/1.398	0.70/0.028
DP01-5038223K	22000	1929.0	2218.5	2.5	2.0	35.5/1.398	0.70/0.028
DP01-5038273K	27000	2795.0	3214.5	2.1	1.7	34.8/1.370	0.60/0.024
DP01-5038333K	33000	3197.0	3677.0	2.0	1.7	34.8/1.370	0.60/0.024
DP01-5038393K	39000	3490.0	4014.0	1.8	1.4	34.5/1.358	0.60/0.024
DP01-5038473K	47000	5086.0	5849.0	1.6	1.4	34.5/1.358	0.50/0.020

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:10KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 5%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 20°C.

DP02 Series Unshielded Power Inductors

Features

- Unshielded, leaded drum core
- High current output, Low DCR
- Wide range of inductance

Applications

- High power supplies
- Power amplifiers
- SCR and TRIAC controls
- Speaker crossover networks and filters

Environmental Data

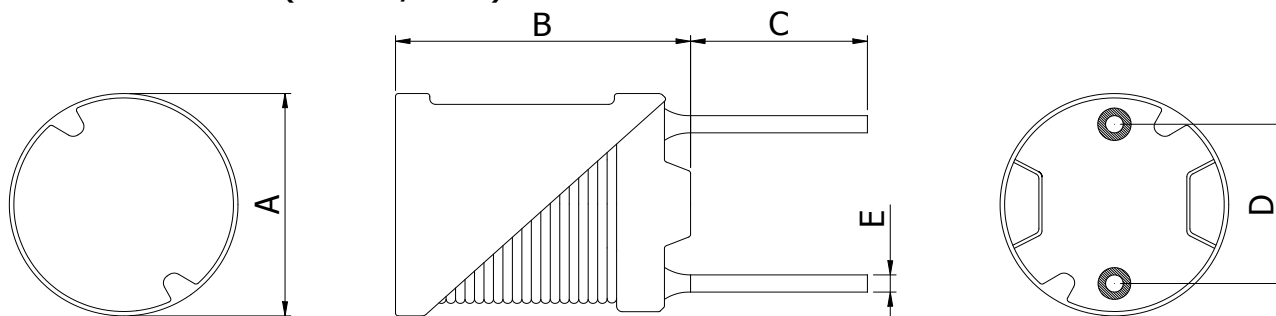
- Storage temperature range: -55°C to + 130°C
- Operating temperature range: -55°C to + 130°C
(including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

- Tray and carton box packaging

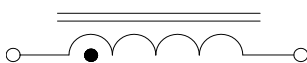


Mechanical Dimension (Unit: mm/inches)



Type	A Max.	B Max.	C	D	E Nom.
DP02-0609	6.0 0.237	8.5 0.335	3.5±0.5 0.138±0.02	2.5±0.5 0.099±0.02	0.5 0.02
DP02-0807	7.5 0.296	7.0 0.276	3.5±0.5 0.138±0.02	4.0±0.5 0.158±0.02	0.5 0.02
DP02-0908	9.0 0.355	8.0 0.315	3.5±0.5 0.138±0.02	5.0±0.5 0.198±0.02	0.7 0.028
DP02-0910	9.0 0.355	10.0 0.394	3.5±0.5 0.138±0.02	5.0±0.5 0.198±0.02	0.7 0.028
DP02-1014	9.5 0.374	13.5 0.532	3.5±0.5 0.138±0.02	5.0±0.5 0.198±0.02	0.7 0.028
DP02-1211	11.5 0.453	11.0 0.433	3.5±0.5 0.138±0.02	5.0±0.5 0.198±0.02	0.7 0.028

Electrical Schematic



Part Number Description

DP02 - 0609 3R3 M
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

DP02 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DCR		Isat ¹	Isat ²	Isat ³	Irms
	L0(uH)	(Ω)Typ.	(Ω)Max.	(A)Typ.	(A)Typ.	(A)Typ.	(A)Typ.
DP02-06093R3M	3.3	0.017	0.020	4.0	5.2	6.0	5.70
DP02-06094R7M	4.7	0.028	0.034	3.7	4.4	5.0	4.40
DP02-06095R6M	5.6	0.029	0.035	3.1	3.9	4.4	4.30
DP02-06096R8M	6.8	0.032	0.038	2.8	3.4	4.0	4.20
DP02-06098R2M	8.2	0.038	0.046	2.7	3.2	3.5	3.80
DP02-0609100M	10	0.053	0.064	2.6	3.0	3.2	3.30
DP02-0609120M	12	0.062	0.074	2.5	2.8	3.1	3.00
DP02-0609150M	15	0.071	0.085	2.2	2.5	2.8	2.60
DP02-0609180M	18	0.087	0.104	2.0	2.3	2.5	2.50
DP02-0609220M	22	0.101	0.120	1.7	2.1	2.2	2.40
DP02-0609270M	27	0.125	0.150	1.6	1.9	2.1	2.10
DP02-0609330M	33	0.153	0.184	1.5	1.7	1.8	1.90
DP02-0609390M	39	0.193	0.232	1.3	1.5	1.7	1.60
DP02-0609470M	47	0.232	0.278	1.2	1.4	1.5	1.50
DP02-0609560M	56	0.274	0.329	1.1	1.3	1.4	1.30
DP02-0609680M	68	0.347	0.416	1.0	1.2	1.3	1.25
DP02-0609820M	82	0.397	0.476	0.82	0.96	1.1	1.20
DP02-0609101K	100	0.451	0.541	0.80	0.92	1.0	1.05
DP02-0609121K	120	0.604	0.725	0.78	0.85	0.93	0.96
DP02-0609151K	150	0.693	0.832	0.70	0.80	0.88	0.90
DP02-0609181K	180	0.877	1.052	0.60	0.75	0.80	0.85
DP02-0609221K	220	1.017	1.220	0.56	0.65	0.72	0.75
DP02-0609331K	330	1.281	1.537	0.50	0.55	0.60	0.65
DP02-0609471K	470	2.248	2.698	0.42	0.47	0.50	0.51
DP02-0609561K	560	2.891	3.469	0.38	0.42	0.45	0.45
DP02-0609681K	680	3.203	3.844	0.34	0.38	0.41	0.43
DP02-0609821K	820	4.038	4.846	0.32	0.35	0.37	0.37
DP02-0609102K	1000	4.688	5.626	0.28	0.32	0.35	0.35

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:1KHz,0.25Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat¹) will cause L0 to drop approximately 10%.
- Saturation current(Isat²) will cause L0 to drop approximately 20%.
- Saturation current(Isat³) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

DP02 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance		DCR		Isat ¹	Isat ²	Isat ³	Irms
	L0(uH)	(Ω)Typ.	(Ω)Max.	(A)Typ.	(A)Typ.	(A)Typ.	(A)Typ.	
DP02-08073R3M	3.3	0.013	0.016	4.0	5.0	5.5	5.8	
DP02-08074R7M	4.7	0.019	0.023	3.3	4.2	4.8	4.8	
DP02-08075R6M	5.6	0.021	0.025	3.2	3.8	4.2	4.6	
DP02-08076R8M	6.8	0.027	0.032	3.0	3.5	3.8	4.1	
DP02-08078R2M	8.2	0.030	0.036	2.8	3.3	3.7	3.9	
DP02-0807100M	10	0.036	0.043	2.4	2.9	3.2	3.5	
DP02-0807120M	12	0.041	0.049	2.3	2.7	2.9	3.3	
DP02-0807150M	15	0.049	0.059	2.2	2.5	2.6	3.0	
DP02-0807180M	18	0.061	0.073	2.0	2.3	2.4	2.7	
DP02-0807220M	22	0.067	0.080	1.7	2.0	2.1	2.6	
DP02-0807270M	27	0.081	0.097	1.6	1.7	1.9	2.3	
DP02-0807330M	33	0.102	0.122	1.5	1.6	1.7	2.1	
DP02-0807390M	39	0.112	0.134	1.3	1.5	1.6	2.0	
DP02-0807470M	47	0.138	0.166	1.2	1.4	1.5	1.8	
DP02-0807560M	56	0.167	0.200	1.1	1.2	1.3	1.6	
DP02-0807680M	68	0.209	0.251	0.95	1.15	1.25	1.40	
DP02-0807820M	82	0.247	0.296	0.90	1.05	1.12	1.35	
DP02-0807101K	100	0.287	0.344	0.82	0.97	1.02	1.25	
DP02-0807121K	120	0.367	0.440	0.75	0.87	0.95	1.10	
DP02-0807151K	150	0.428	0.514	0.65	0.75	0.85	1.00	
DP02-0807181K	180	0.600	0.720	0.62	0.72	0.77	0.87	
DP02-0807221K	220	0.642	0.770	0.55	0.63	0.68	0.84	
DP02-0807331K	330	1.016	1.219	0.50	0.55	0.60	0.67	
DP02-0807471K	470	1.381	1.657	0.40	0.45	0.47	0.57	
DP02-0807561K	560	1.574	1.889	0.35	0.40	0.42	0.54	
DP02-0807681K	680	1.957	2.348	0.33	0.37	0.40	0.48	
DP02-0807821K	820	2.428	2.914	0.30	0.35	0.37	0.43	
DP02-0807102K	1000	2.834	3.400	0.28	0.32	0.34	0.40	

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:1KHz,0.25Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat¹) will cause L0 to drop approximately 10%.
- Saturation current(Isat²) will cause L0 to drop approximately 20%.
- Saturation current(Isat³) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

DP02 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance		DCR		Isat ¹	Isat ²	Isat ³	Irms
	L0(uH)	(Ω)Typ.	(Ω)Max.	(A)Typ.	(A)Typ.	(A)Typ.	(A)Typ.	
DP02-09083R3M	3.3	0.015	0.018	10.5	11.5	12.3	5.5	
DP02-09084R7M	4.7	0.019	0.023	9.0	10.2	11.0	4.8	
DP02-09085R6M	5.6	0.024	0.029	8.0	9.0	9.7	4.3	
DP02-09086R8M	6.8	0.028	0.035	7.2	8.5	9.1	3.9	
DP02-09088R2M	8.2	0.031	0.037	6.8	8.0	8.5	3.8	
DP02-0908100M	10	0.041	0.050	6.0	7.2	7.6	3.3	
DP02-0908120M	12	0.050	0.060	5.5	6.1	6.5	3.0	
DP02-0908150M	15	0.053	0.065	4.7	5.5	6.0	2.9	
DP02-0908180M	18	0.064	0.077	4.5	5.0	5.6	2.6	
DP02-0908220M	22	0.078	0.095	4.2	4.7	5.0	2.4	
DP02-0908270M	27	0.098	0.118	3.6	4.1	4.5	2.1	
DP02-0908330M	33	0.111	0.133	3.1	3.7	4.2	2.0	
DP02-0908390M	39	0.138	0.166	2.9	3.4	3.8	1.8	
DP02-0908470M	47	0.156	0.187	2.8	3.2	3.5	1.7	
DP02-0908560M	56	0.188	0.225	2.6	3.0	3.2	1.5	
DP02-0908680M	68	0.215	0.258	2.3	2.7	2.9	1.4	
DP02-0908820M	82	0.267	0.320	2.1	2.4	2.6	1.3	
DP02-0908101K	100	0.328	0.394	2.0	2.2	2.3	1.18	
DP02-0908121K	120	0.376	0.451	1.8	2.0	2.1	1.15	
DP02-0908151K	150	0.480	0.576	1.6	1.8	2.0	0.97	
DP02-0908181K	180	0.556	0.667	1.5	1.6	1.7	0.90	
DP02-0908221K	220	0.688	0.826	1.3	1.5	1.6	0.81	
DP02-0908331K	330	0.962	1.154	1.2	1.3	1.4	0.69	
DP02-0908471K	470	1.382	1.658	0.92	1.1	1.2	0.58	
DP02-0908561K	560	1.818	2.182	0.88	0.94	1.0	0.50	
DP02-0908681K	680	2.321	2.785	0.80	0.90	0.95	0.44	
DP02-0908821K	820	2.554	3.065	0.72	0.80	0.85	0.42	
DP02-0908102K	1000	3.170	3.800	0.58	0.67	0.72	0.38	

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:1KHz,0.25Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat¹) will cause L0 to drop approximately 10%.
- Saturation current(Isat²) will cause L0 to drop approximately 20%.
- Saturation current(Isat³) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

DP02 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω)Typ.	DCR (Ω)Max.	Isat ¹ (A)Typ.	Isat ² (A)Typ.	Isat ³ (A)Typ.	Irms (A)Typ.
DP02-09103R3M	3.3	0.011	0.013	10.2	11.2	12.0	8.1
DP02-09104R7M	4.7	0.013	0.016	8.5	9.7	10.5	7.4
DP02-09105R6M	5.6	0.015	0.018	8.0	9.2	10.0	6.9
DP02-09106R8M	6.8	0.016	0.019	6.2	8.2	9.2	6.7
DP02-09108R2M	8.2	0.019	0.023	6.0	7.3	8.0	6.1
DP02-0910100M	10	0.022	0.026	5.6	6.7	7.5	5.7
DP02-0910120M	12	0.027	0.032	4.4	6.0	6.8	5.2
DP02-0910150M	15	0.035	0.042	4.2	5.6	6.1	4.6
DP02-0910180M	18	0.039	0.047	4.1	5.0	5.5	4.3
DP02-0910220M	22	0.042	0.050	4.0	4.6	5.0	4.1
DP02-0910270M	27	0.050	0.060	3.4	4.0	4.5	3.7
DP02-0910330M	33	0.057	0.068	3.0	3.8	4.2	3.5
DP02-0910390M	39	0.072	0.086	2.8	3.2	3.5	3.0
DP02-0910470M	47	0.095	0.114	2.7	3.0	3.4	2.7
DP02-0910560M	56	0.108	0.130	2.6	2.9	3.3	2.6
DP02-0910680M	68	0.138	0.165	2.2	2.6	2.9	2.3
DP02-0910820M	82	0.159	0.190	2.1	2.4	2.7	2.1
DP02-0910101K	100	0.183	0.210	1.8	2.1	2.3	2.0
DP02-0910121K	120	0.207	0.238	1.6	1.9	2.1	1.8
DP02-0910151K	150	0.255	0.293	1.5	1.7	1.9	1.7
DP02-0910181K	180	0.345	0.397	1.4	1.6	1.8	1.4
DP02-0910221K	220	0.423	0.486	1.2	1.4	1.5	1.3
DP02-0910331K	330	0.532	0.612	0.94	1.2	1.35	1.15
DP02-0910471K	470	0.813	0.935	0.84	1.0	1.15	0.90
DP02-0910561K	560	1.050	1.207	0.78	0.88	1.00	0.80
DP02-0910681K	680	1.220	1.400	0.73	0.84	0.90	0.75
DP02-0910821K	820	1.365	1.570	0.64	0.75	0.82	0.70
DP02-0910102K	1000	1.780	2.050	0.56	0.66	0.72	0.60

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:1KHz,0.25Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat¹) will cause L0 to drop approximately 10%.
- Saturation current(Isat²) will cause L0 to drop approximately 20%.
- Saturation current(Isat³) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

DP02 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω)Typ.	DCR (Ω)Max.	Isat ¹ (A)Typ.	Isat ² (A)Typ.	Isat ³ (A)Typ.	Irms (A)Typ.
DP02-10143R3M	3.3	0.007	0.009	8.0	10.8	11.7	8.8
DP02-10144R7M	4.7	0.008	0.010	7.5	9.4	10.8	8.2
DP02-10145R6M	5.6	0.010	0.012	7.0	8.6	9.7	7.3
DP02-10146R8M	6.8	0.012	0.015	6.4	7.9	8.8	7.0
DP02-10148R2M	8.2	0.015	0.018	6.0	7.2	7.9	6.5
DP02-1014100M	10	0.017	0.020	5.4	6.4	7.0	6.0
DP02-1014120M	12	0.020	0.024	5.0	5.7	6.3	5.5
DP02-1014150M	15	0.024	0.029	4.7	5.3	5.8	5.2
DP02-1014180M	18	0.025	0.030	4.4	4.9	5.3	5.0
DP02-1014220M	22	0.031	0.037	4.0	4.5	4.9	4.6
DP02-1014270M	27	0.036	0.043	3.5	4.0	4.5	4.2
DP02-1014330M	33	0.045	0.054	3.0	3.6	4.0	3.7
DP02-1014390M	39	0.056	0.067	2.8	3.4	3.7	3.4
DP02-1014470M	47	0.064	0.077	2.6	3.0	3.3	3.0
DP02-1014560M	56	0.071	0.085	2.4	2.8	3.0	2.8
DP02-1014680M	68	0.092	0.110	2.2	2.6	2.8	2.6
DP02-1014820M	82	0.106	0.127	2.0	2.3	2.6	2.4
DP02-1014101K	100	0.141	0.169	1.9	2.1	2.4	2.2
DP02-1014121K	120	0.157	0.188	1.6	1.9	2.1	2.0
DP02-1014151K	150	0.193	0.230	1.4	1.7	1.9	1.8
DP02-1014181K	180	0.242	0.290	1.3	1.5	1.7	1.6
DP02-1014221K	220	0.278	0.334	1.1	1.4	1.5	1.4
DP02-1014331K	330	0.403	0.484	0.95	1.13	1.25	1.22
DP02-1014471K	470	0.562	0.674	0.82	0.98	1.10	1.05
DP02-1014561K	560	0.698	0.838	0.75	0.92	0.98	0.96
DP02-1014681K	680	0.867	1.000	0.68	0.82	0.90	0.86
DP02-1014821K	820	0.992	1.200	0.63	0.75	0.83	0.82
DP02-1014102K	1000	1.224	1.469	0.56	0.66	0.70	0.74

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:1KHz,0.25Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat¹) will cause L0 to drop approximately 10%.
- Saturation current(Isat²) will cause L0 to drop approximately 20%.
- Saturation current(Isat³) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

DP02 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (Ω)Typ.	DCR (Ω)Max.	Isat ¹ (A)Typ.	Isat ² (A)Typ.	Isat ³ (A)Typ.	Irms (A)Typ.
DP02-12113R3M	3.3	0.007	0.009	10.2	12.8	14.0	9.7
DP02-12114R7M	4.7	0.010	0.012	8.0	10.0	11.0	8.5
DP02-12115R6M	5.6	0.012	0.014	7.5	9.3	10.2	7.8
DP02-12116R8M	6.8	0.014	0.017	7.0	8.8	9.5	7.2
DP02-12118R2M	8.2	0.016	0.019	6.5	8.0	8.8	6.5
DP02-1211100M	10	0.018	0.022	5.9	6.9	7.8	6.0
DP02-1211120M	12	0.021	0.025	5.8	6.5	7.2	5.5
DP02-1211150M	15	0.025	0.030	5.5	6.1	6.8	5.2
DP02-1211180M	18	0.031	0.037	4.9	5.4	5.7	4.8
DP02-1211220M	22	0.040	0.048	4.4	4.9	5.3	4.3
DP02-1211270M	27	0.044	0.055	3.9	4.4	4.9	4.0
DP02-1211330M	33	0.049	0.060	3.5	4.0	4.5	3.5
DP02-1211390M	39	0.055	0.066	3.2	3.6	3.9	3.3
DP02-1211470M	47	0.075	0.090	3.0	3.4	3.7	3.0
DP02-1211560M	56	0.083	0.100	2.7	3.0	3.3	2.8
DP02-1211680M	68	0.095	0.114	2.4	2.6	2.9	2.6
DP02-1211820M	82	0.124	0.150	2.2	2.4	2.7	2.3
DP02-1211101K	100	0.138	0.166	2.0	2.3	2.5	2.0
DP02-1211121K	120	0.168	0.200	1.9	2.1	2.3	1.8
DP02-1211151K	150	0.213	0.256	1.7	1.9	2.2	1.7
DP02-1211181K	180	0.260	0.312	1.5	1.7	1.9	1.5
DP02-1211221K	220	0.302	0.362	1.2	1.5	1.7	1.4
DP02-1211331K	330	0.445	0.534	1.0	1.2	1.4	1.25
DP02-1211471K	470	0.617	0.740	0.92	1.05	1.15	1.05
DP02-1211561K	560	0.704	0.845	0.88	0.98	1.05	0.97
DP02-1211681K	680	0.931	1.117	0.80	0.92	1.00	0.86
DP02-1211821K	820	1.074	1.289	0.74	0.83	0.90	0.80
DP02-1211102K	1000	1.271	1.525	0.68	0.78	0.84	0.72

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:1KHz,0.25Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat¹) will cause L0 to drop approximately 10%.
- Saturation current(Isat²) will cause L0 to drop approximately 20%.
- Saturation current(Isat³) will cause L0 to drop approximately 30%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

DP03 Series Unshielded Power Inductors

Features

- Unshielded, Rod core
- High current output
- Having excellent high-frequency characteristics

Applications

- Power seat motor, Electric power steering
- Electronically controlled throttle, variable valve controller ABS
- Noise filtering for DC motor, etc.



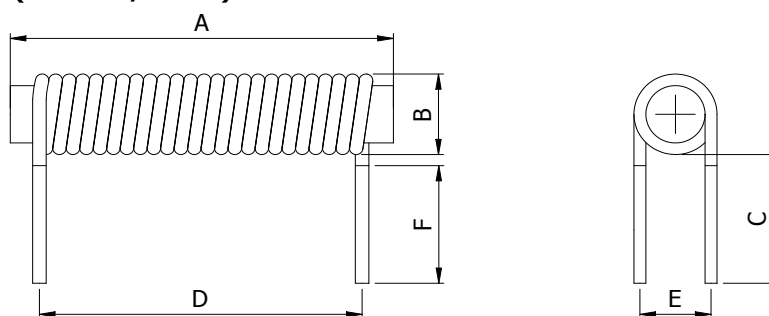
Environmental Data

- Storage temperature range: -55°C to + 150°C
- Operating temperature range: -55°C to + 150°C
(including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

- Tray and carton box packaging

Mechanical Dimension (Unit: mm/inches)

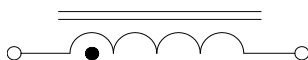


Type	A	B	C	D	E	F
	Max.	Max.	Nom.	Nom.	Nom.	Nom.
DP03-035130	13.5	3.8	20.0	11.3	2.8	16.0
	0.532	0.150	0.787	0.445	0.110	0.63
DP03-035170	17.5	3.8	20.0	14.8	2.8	16.0
	0.690	0.150	0.787	0.583	0.110	0.63
DP03-035190	19.5	3.8	20.0	17.6	2.8	16.0
	0.770	0.150	0.787	0.693	0.110	0.630
DP03-040130	13.5	4.3	20.0	9.2	3.3	16.0
	0.532	0.170	0.787	0.362	0.13	0.63
DP03-040160	16.5	4.3	20.0	13.4	3.3	16.0
	0.650	0.170	0.787	0.528	0.13	0.63
DP03-040190	19.5	4.3	20.0	15.5	3.3	16.0
	0.770	0.170	0.787	0.610	0.13	0.630
DP03-045130	13.5	5.0	19.0	9.2	3.8	15.0
	0.532	0.197	0.748	0.362	0.15	0.591
DP03-045160	16.5	5.0	19.0	13.4	3.8	15.0
	0.650	0.197	0.748	0.528	0.15	0.591
DP03-045180	18.5	5.0	19.0	15.5	3.8	15.0
	0.729	0.197	0.748	0.610	0.15	0.591

DP03 Series Unshielded Power Inductors

Type	A Max.	B Max.	C Nom.	D Nom.	E Nom.	F Nom.
DP03-050130	13.5	5.5	19.0	8.5	4.3	15.0
	0.532	0.217	0.748	0.335	0.170	0.591
DP03-050160	16.5	5.5	19.0	12.0	4.3	15.0
	0.650	0.217	0.748	0.473	0.170	0.591
DP03-050190	19.5	5.5	19.0	14.1	4.3	15.0
	0.770	0.217	0.748	0.555	0.170	0.591
DP03-060150	15.5	6.5	18.0	13.0	5.1	14.0
	0.610	0.256	0.709	0.512	0.200	0.551
DP03-060180	18.5	6.5	18.0	15.7	5.1	14.0
	0.728	0.256	0.709	0.618	0.200	0.551
DP03-060200	20.5	6.5	18.0	18.5	5.1	14.0
	0.807	0.256	0.709	0.728	0.200	0.551
DP03-077200	20.5	8.2	16.0	19.0	6.4	12.0
	0.807	0.323	0.630	0.748	0.252	0.473
DP03-085250	25.5	9.0	16.0	22.8	7.3	15.0
	1.003	0.354	0.630	0.898	0.288	0.591
DP03-097250	25.5	10.2	8.0	13.1	8.0	4.0
	1.003	0.402	0.315	0.516	0.315	0.158
DP03-125300	30.5	13.0	10.8	25.9	10.4	4.0
	12.007	0.512	0.425	1.020	0.410	0.158

Electrical Schematic



Part Number Description

DP03 - 035130 2R3 M

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

DP03 Series Unshielded Power Inductors

Electrical Characteristic

Part Number	Inductance	DC Resistance		Rated current
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Max.
DP03-0351302R3M	2.3	7.5	9.0	5.0
DP03-0351704R4M	4.4	9.8	11.8	3.5
DP03-0351905R9M	5.9	11.6	13.9	2.5
DP03-0401302R2M	2.2	7.8	9.4	6.5
DP03-0401604R1M	4.1	10.5	12.6	4.7
DP03-0401906R0M	6.0	12.0	14.4	3.7
DP03-0451302R3M	2.3	8.2	9.9	9.0
DP03-0451604R6M	4.6	11.9	14.3	6.5
DP03-0451806R2M	6.2	13.8	16.6	5.0
DP03-0501302R3M	2.3	8.7	10.5	10.0
DP03-0501604R5M	4.5	12.2	14.7	8.0
DP03-0501906R7M	6.7	14.4	17.3	6.5
DP03-0601502R9M	2.9	7.2	9.4	13.0
DP03-0601804R4M	4.4	8.5	10.2	10.0
DP03-0602005R9M	5.9	10.0	12.0	8.2
DP03-0772003R7M	3.7	4.9	5.9	12.0
DP03-0852508R0M	8.0	8.2	9.9	11.0
DP03-0972501R9M	1.9	1.5	1.8	24.0
DP03-1253004R7M	4.7	2.5	3.0	25.0

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Rated current:It is either the inductance is 10% lower is than its initial value in DC saturation characteristics or temperature rise becomes $\Delta T=40^{\circ}\text{C}$ whichever lower.

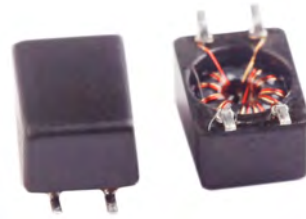
SCM01 Series Common Mode Chokes

Features

- High rated currents, reduced components height
- Ideally used in xDSL, Modem and telecom applications
- Suitable for reflow soldering

Applications

- Data and signal line chokes
- Digital communication equipment
- Industrial electronics, etc.



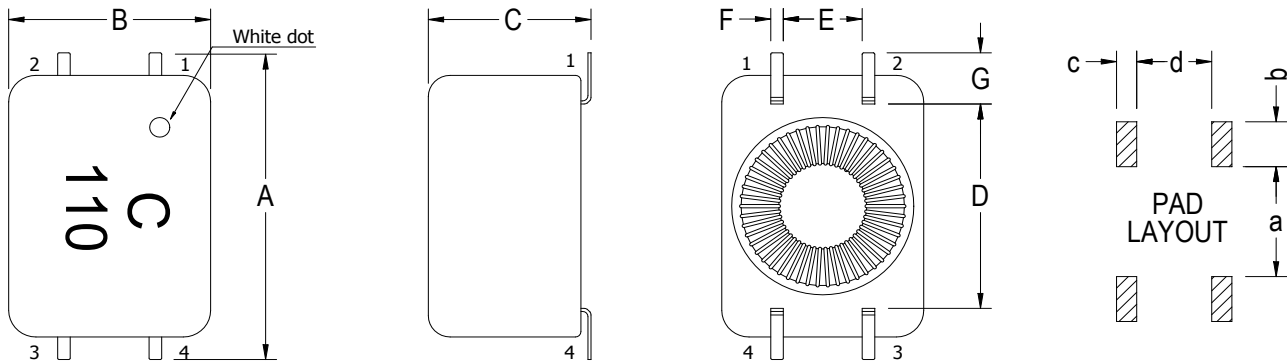
Environmental Data

- Storage temperature range: -40°C to +85°C
- Operating temperature range: -40°C to +105°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

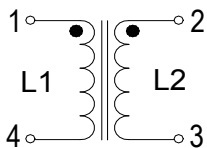
- Supplied in tape and reel packaging, 1500pcs, per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A	B	C	D	E	F	G	a	b	c	d
	Max.	Max.	Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SCM01-1005	9.5	5.65	4.9	5.5	2.04	0.5	1.7	4.4	2.9	1.2	1.34
	0.375	0.223	0.193	0.217	0.081	0.02	0.067	0.174	0.115	0.048	0.053

Electrical Schematic



Part Number Description

SCM01 - 1005 110 N
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SCM01 Series Common Mode Chokes

Electrical Characteristic

Part Number	Inductance (μ H)	Tolerance (\pm %)	Leakage (nH)Typ.	DCR ($m\Omega$)Max.	Rated current (mA)Max.	Hi-Pot(V) DC/2s/0.5mA
SCM01-1005110N	11	30	50	120	700	250
SCM01-1005250N	25	30	60	130	700	250
SCM01-1005510N	51	30	70	160	600	250
SCM01-1005101N	100	30	100	230	500	250
SCM01-1005471N	470	30	100	200	500	750
SCM01-1005102N	1000	+50/-30	70	280	500	750
SCM01-1005222N	2200	+50/-30	120	480	400	750
SCM01-1005472N	4700	+50/-30	200	700	200	750

- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Rated current:DC current when temperature of coil increased up to 40°C.

SCM02 Series Common Mode Chokes

Features

- High rated currents, reduced components height
- Ideally used in xDSL, Modem and telecom applications
- Suitable for reflow soldering

Applications

- Data and signal line chokes
- Digital communication equipment
- Industrial electronics, etc.



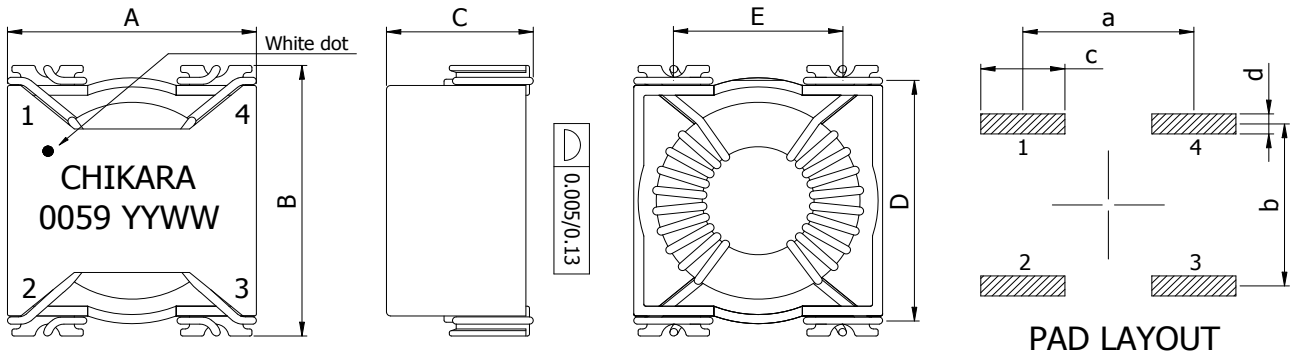
Environmental Data

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

Packaging

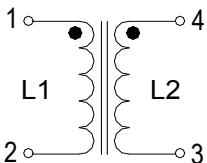
- Supplied in tape and reel packaging, 200pcs, per 13-inch reel

Mechanical Dimension (Unit: mm/inches)



Type	A	B	C	D	E	a	b	c	d
	Max.	Max.	Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.
SCM02-2010	17.0	19.6	9.91	16.51	11.3	11.3	16.51	4.45	1.52
	0.67	0.77	0.39	0.65	0.445	0.445	0.65	0.175	0.06

Electrical Schematic



Part Number Description

DCM02 - 2010 0059 Y

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SCM02 Series Common Mode Chokes

Electrical Characteristic

Part Number	Inductance (μ H)	Tolerance (\pm %)	DCR ($m\Omega$)Max.	Rated current (A)Max.	Hi-Pot(V) (Coil - Coil)
SCM02-20100059Y	590	35	21	5.6	DC1.0KV/3S/2mA
SCM02-20100077Y	770	35	40	4.7	DC1.0KV/3S/2mA
SCM02-20100022Y	220	35	60	3.3	DC1.0KV/3S/2mA
SCM02-20100132Y	1320	35	60	3.3	DC1.0KV/3S/2mA
SCM02-20100147Y	1470	35	80	2.8	DC1.0KV/3S/2mA

- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Rated current:DC current when temperature of coil increased up to 40°C.

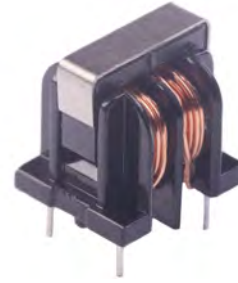
DCM01 Series Common Mode Chokes

Features

- Low cost and high reliability
- High inductance and high current capabilities
- Suitable for wave soldering

Applications

- Suppression of common-mode interferences
- Switch-mode power applications
- Ideally used as AC common mode noise filter for TV, Printer, etc



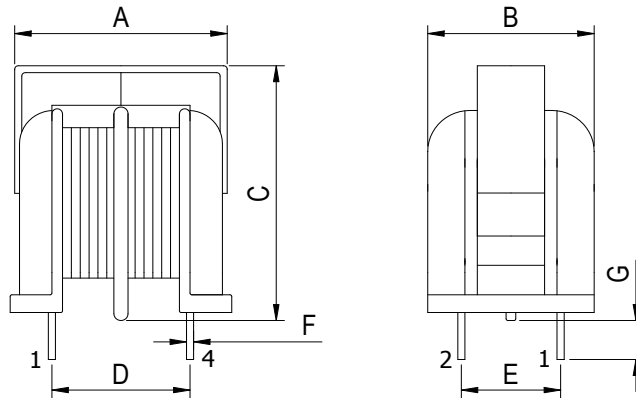
Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

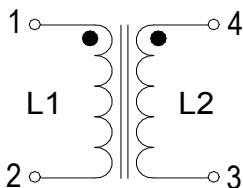
- Tray and carton box packaging

Mechanical Dimension (Unit: mm/inches)



Type	A Max.	B Max.	C Max.	D	E	F	G
DCM01-1921	19.0	17.0	21.0	13.0±0.3	10.0±0.3	0.70±0.1	4.0±1.0
	0.75	0.67	0.827	0.512±0.012	0.394±0.012	0.028±0.004	0.158±0.04
DCM01-2328	23.0	19.5	28.0	13.0±0.3	10.0±0.3	0.70±0.1	4.0±1.0
	0.91	0.77	1.103	0.512±0.012	0.394±0.012	0.028±0.004	0.158±0.04

Electrical Schematic



Part Number Description

DCM01 - 1921 0136 Y

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

DCM01 Series Common Mode Chokes

Electrical Characteristic

Part Number	Inductance (mH)Min.	DCR (Ω)Max.	Rated current (A)Max.	Temperature Rise($^{\circ}$ C) Max.	Hi-Pot (Coil - Coil)
DCM01-19210136Y	13.6	1.460	0.5	40	AC2.0KV/3S/2mA
DCM01-19210072Y	7.2	0.728	0.7	40	AC2.0KV/3S/2mA
DCM01-19210043Y	4.3	0.414	1.1	40	AC2.0KV/3S/2mA
DCM01-19210028Y	2.8	0.277	1.3	40	AC2.0KV/3S/2mA
DCM01-19210016Y	1.6	0.166	1.7	40	AC2.0KV/3S/2mA
DCM01-19210010Y	1.0	0.110	2.0	40	AC2.0KV/3S/2mA
DCM01-19210007Y	0.7	0.076	2.3	40	AC2.0KV/3S/2mA

Electrical Characteristic

Part Number	Inductance (mH)Min.	DCR (Ω)Max.	Rated current (A)Max.	Temperature Rise($^{\circ}$ C) Max.	Hi-Pot (Coil - Coil)
DCM01-23280220Y	22.0	1.100	0.6	40	AC2.0KV/3S/2mA
DCM01-23280150Y	15.0	0.710	0.8	40	AC2.0KV/3S/2mA
DCM01-23280120Y	12.0	0.530	1.0	40	AC2.0KV/3S/2mA
DCM01-23280068Y	6.8	0.320	1.3	40	AC2.0KV/3S/2mA
DCM01-23280047Y	4.7	0.215	1.5	40	AC2.0KV/3S/2mA
DCM01-23280030Y	3.0	0.144	1.9	40	AC2.0KV/3S/2mA
DCM01-23280021Y	2.1	0.103	2.2	40	AC2.0KV/3S/2mA

- Test frequency and voltage:1KHz,1Vrms.
- All test data referenced to 25 $^{\circ}$ C ambient.
- Rated Voltage: 250V AC 50/60Hz
- Rated current: The AC current at which the temperature rise is Δt of 40 $^{\circ}$ C.

DCM02 Series Common Mode Chokes

Features

- Low cost and high reliability
- High inductance and high current capabilities
- Suitable for wave soldering

Applications

- Suppression of common-mode interferences
- Switch-mode power applications
- Ideally used as AC common mode noise filter for TV, Printer, etc



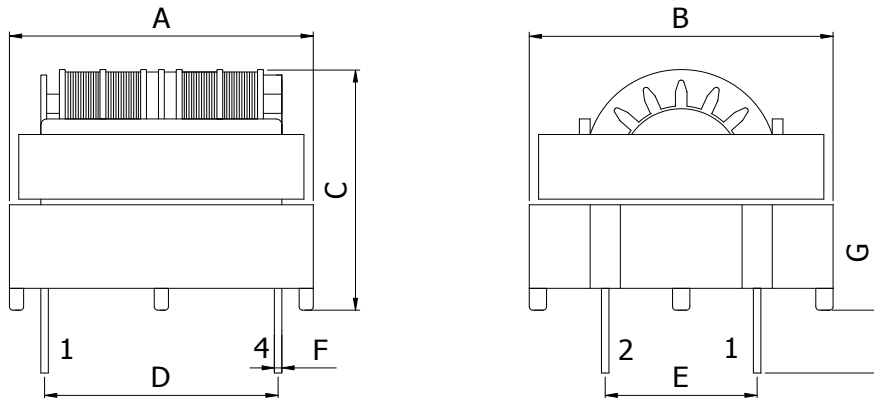
Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

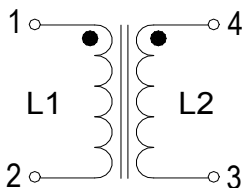
- Tray and carton box packaging

Mechanical Dimension (Unit:mm/inches)



Type	A Max.	B Max.	C Max.	D	E	F	G
DCM02-2219	22.0 0.87	22.0 0.87	18.5 0.73	13.0±0.3 0.512±0.012	10.0±0.3 0.394±0.012	0.80±0.1 0.032±0.004	4.0±1.0 0.158±0.04
DCM02-2622	26.0 1.024	26.0 1.024	21.5 0.847	21.0±0.3 0.827±0.012	15.0±0.3 0.591±0.012	0.80±0.1 0.032±0.004	4.0±1.0 0.158±0.04

Electrical Schematic



Part Number Description

DCM02 - 2219 0470 Y

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

DCM02 Series Common Mode Chokes

Electrical Characteristic

Part Number	Inductance (mH)Min.	DCR (Ω)Max.	Rated current (A)Max.	Temperature Rise($^{\circ}$ C) Max.	Hi-Pot (Coil - Coil)
DCM02-22190470Y	47.0	2.870	0.3	40	AC2.0KV/3S/2mA
DCM02-22190230Y	23.0	1.400	0.5	40	AC2.0KV/3S/2mA
DCM02-22190150Y	15.0	0.990	0.6	40	AC2.0KV/3S/2mA
DCM02-22190100Y	10.0	0.580	0.8	40	AC2.0KV/3S/2mA
DCM02-22190056Y	5.6	0.330	1.1	40	AC2.0KV/3S/2mA
DCM02-22190027Y	2.7	0.155	1.7	40	AC2.0KV/3S/2mA
DCM02-22190018Y	1.8	0.105	2.0	40	AC2.0KV/3S/2mA

Electrical Characteristic

Part Number	Inductance (mH)Min.	DCR (Ω)Max.	Rated current (A)Max.	Temperature Rise($^{\circ}$ C) Max.	Hi-Pot (Coil - Coil)
DCM02-26220620Y	62.0	2.015	0.3	40	AC2.0KV/3S/2mA
DCM02-26220430Y	43.0	1.390	0.5	40	AC2.0KV/3S/2mA
DCM02-26220170Y	17.0	0.550	0.9	40	AC2.0KV/3S/2mA
DCM02-26220110Y	11.0	0.360	1.1	40	AC2.0KV/3S/2mA
DCM02-262220064Y	6.4	0.220	1.5	40	AC2.0KV/3S/2mA
DCM02-26220035Y	3.5	0.115	2.0	40	AC2.0KV/3S/2mA
DCM02-26220023Y	2.3	0.087	2.4	40	AC2.0KV/3S/2mA

- Test frequency and voltage:40KHz,1Vrms.
- All test data referenced to 25 $^{\circ}$ C ambient.
- Rated Voltage: 250V AC 50/60Hz
- Rated current: The AC current at which the temperature rise is Δt of 40 $^{\circ}$ C.

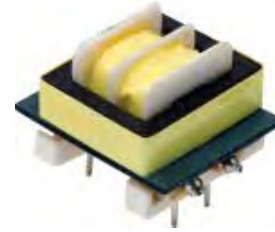
DCM03 Series Common Mode Chokes

Features

- Low cost and high reliability
- High inductance and high current capabilities
- Class B(130°C) materials used
- EE core design

Applications

- Suppression of common-mode interferences
- Switch-mode power applications
- Ideally used as AC common mode noise filter for TV, Printer, etc



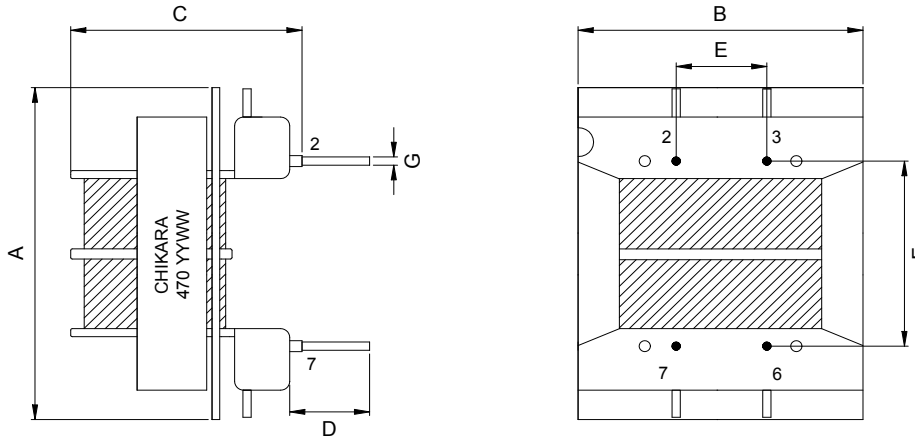
Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

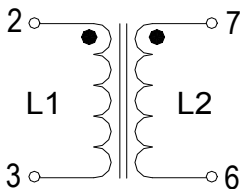
- Tray and carton box packaging

Mechanical Dimension(Unit:mm/inches)



Type	A Max.	B Max.	C Max.	D	E	F	G
DCM03-2417	23.62	22.35	17.02	3.8±0.5	5.08±0.3	13.09±0.5	0.70±0.1
	0.930	0.880	0.670	0.15±0.02	0.20±0.012	0.515±0.02	0.028±0.004

Electrical Schematic



Part Number Description

DCM03 - 2417 470 N
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

DCM03 Series Common Mode Chokes

Electrical Characteristic

Part Number	Inductance (μ H)	DCR (Ω)Max.	Leakage Inductance (μ H)Max.	Rated current (A)Max.	Hi-Pot (Coil - Coil)
DCM03-2417470N	47	0.016	4.0	3.50	AC2.5KV/3S/2mA
DCM03-2417560N	56	0.018	4.0	3.50	AC2.5KV/3S/2mA
DCM03-2417680N	68	0.019	5.0	3.50	AC2.5KV/3S/2mA
DCM03-2417820N	82	0.023	5.5	2.80	AC2.5KV/3S/2mA
DCM03-2417101N	100	0.025	6.0	2.80	AC2.5KV/3S/2mA
DCM03-2417121N	120	0.028	6.5	2.80	AC2.5KV/3S/2mA
DCM03-2417151N	150	0.030	7.5	2.80	AC2.5KV/3S/2mA
DCM03-2417181N	180	0.038	8.0	2.20	AC2.5KV/3S/2mA
DCM03-2417221N	220	0.044	9.0	2.20	AC2.5KV/3S/2mA
DCM03-2417271N	270	0.051	10.0	2.20	AC2.5KV/3S/2mA
DCM03-2417331N	330	0.058	11.0	1.70	AC2.5KV/3S/2mA
DCM03-2417471N	470	0.078	16.0	1.40	AC2.5KV/3S/2mA
DCM03-2417561N	560	0.091	18.0	1.40	AC2.5KV/3S/2mA
DCM03-2417681N	680	0.115	20.0	1.10	AC2.5KV/3S/2mA
DCM03-2417821N	820	0.131	25.0	1.10	AC2.5KV/3S/2mA
DCM03-2417102N	1000	0.194	35.0	0.88	AC2.5KV/3S/2mA
DCM03-2417122N	1200	0.219	47.0	0.88	AC2.5KV/3S/2mA
DCM03-2417152N	1500	0.278	49.0	0.70	AC2.5KV/3S/2mA
DCM03-2417182N	1800	0.306	59.0	0.70	AC2.5KV/3S/2mA
DCM03-2417222N	2200	0.431	76.0	0.55	AC2.5KV/3S/2mA
DCM03-2417272N	2700	0.469	91.0	0.55	AC2.5KV/3S/2mA
DCM03-2417332N	3300	0.531	101.0	0.55	AC2.5KV/3S/2mA
DCM03-2417392N	3900	0.669	135.0	0.44	AC2.5KV/3S/2mA
DCM03-2417472N	4700	0.760	158.0	0.44	AC2.5KV/3S/2mA
DCM03-2417562N	5600	0.853	196.0	0.44	AC2.5KV/3S/2mA
DCM03-2417682N	6800	1.240	257.0	0.35	AC2.5KV/3S/2mA
DCM03-2417822N	8200	1.400	296.0	0.35	AC2.5KV/3S/2mA
DCM03-2417103N	10000	1.610	362.0	0.35	AC2.5KV/3S/2mA
DCM03-2417123N	12000	1.980	410.0	0.27	AC2.5KV/3S/2mA
DCM03-2417153N	15000	2.240	503.0	0.27	AC2.5KV/3S/2mA
DCM03-2417183N	18000	2.450	602.0	0.27	AC2.5KV/3S/2mA
DCM03-2417223N	22000	3.490	730.0	0.22	AC2.5KV/3S/2mA
DCM03-2417273N	27000	4.600	870.0	0.17	AC2.5KV/3S/2mA
DCM03-2417333N	33000	5.210	1150.0	0.17	AC2.5KV/3S/2mA
DCM03-2417393N	39000	7.190	1300.0	0.13	AC2.5KV/3S/2mA
DCM03-2417473N	47000	7.800	1541.0	0.13	AC2.5KV/3S/2mA
DCM03-2417563N	56000	8.690	1875.0	0.13	AC2.5KV/3S/2mA
DCM03-2417683N	68000	9.690	2254.0	0.13	AC2.5KV/3S/2mA

- Tolerance of Inductance:K= $\pm 10\%$,M= $\pm 20\%$,N= $\pm 30\%$.
- Test frequency and voltage:10KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Rated Voltage: 250V AC 50/60Hz.
- Rated current: The AC current at which the temperature rise is Δt of 40°C.

DCM04 Series Common Mode Chokes

Features

- Low cost and high reliability
- High resonant frequency
- Suitable for wave soldering
- Class B(130°C) materials used

Applications

- Suppression of common-mode interferences
- Switch-mode power applications



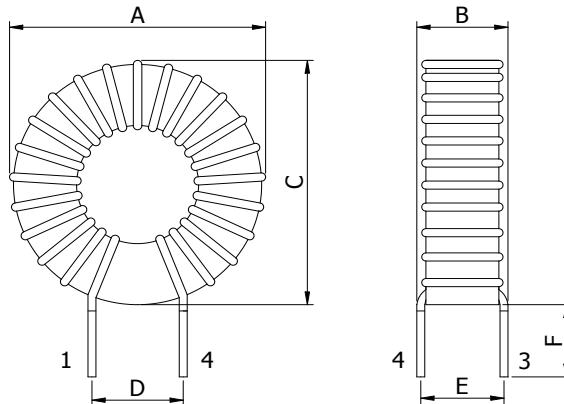
Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

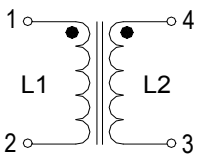
- Tray and carton box packaging

Mechanical Dimension(Unit:mm/inches)



Type	A Max.	B Max.	C Max.	D Nom.	E Nom.	F Min.
DCM04-1005	12.5 0.493	8.0 0.315	12.5 0.493	5.0 0.197	6.5 0.256	5.0 0.197

Electrical Schematic



Part Number Description

DCM04 - 1005 3R6 Y

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

DCM04 Series Common Mode Chokes

Electrical Characteristic

Part Number	Inductance (uH)Min.	DCR (mΩ)Max.	Rated current (A)Max.	Leakage Inductance (uH)Typ.	Hi-Pot (Coil - Coil)
DCM04-10053R6Y	3.6	8.0	1.70	1.0	AC0.8KV/3S/2mA
DCM04-10056R3Y	6.3	9.0	1.70	1.5	AC0.8KV/3S/2mA
DCM04-1005140Y	14.0	13.0	1.70	2.2	AC0.8KV/3S/2mA
DCM04-1005250Y	25.0	17.0	1.70	3.0	AC0.8KV/3S/2mA
DCM04-1005350Y	35.0	15.0	1.70	6.0	AC0.8KV/3S/2mA
DCM04-1005870Y	87.0	20.0	2.10	10.0	AC2.0KV/3S/2mA
DCM04-1005161Y	160.0	26.0	1.70	20.0	AC2.0KV/3S/2mA
DCM04-1005241Y	240.0	130.0	0.45	30.0	AC1.5KV/3S/2mA

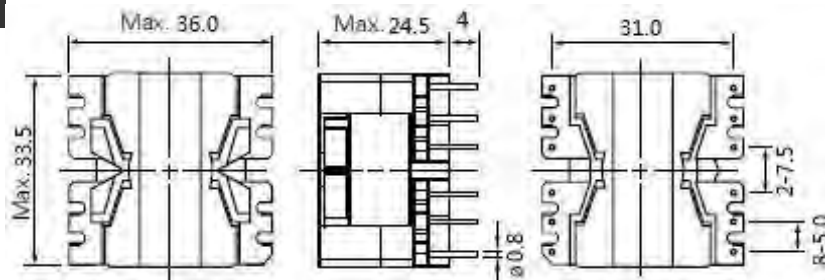
- Test frequency and voltage:10KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Rated current: The AC current at which the temperature rise is Δt of 40°C.

DTXX Series Transformers

DT001PQ3220V

Mechanical Dimension(Unit:mm)

Construction

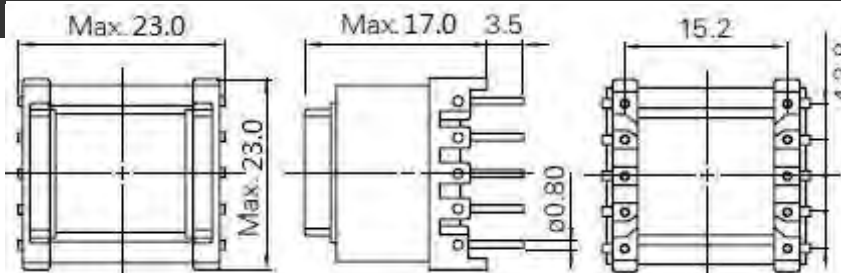


Applications: Switching regulator,PFC choke **Moisture sensitivity level:** 1
Operating Power: 65W at70kHz(Reference value) **RoHS&HF compliance**
Operating temperature range: -40°C to +125°C (Including self-temperature rise)

DT001EF2006H

Mechanical Dimension(Unit:mm)

Construction

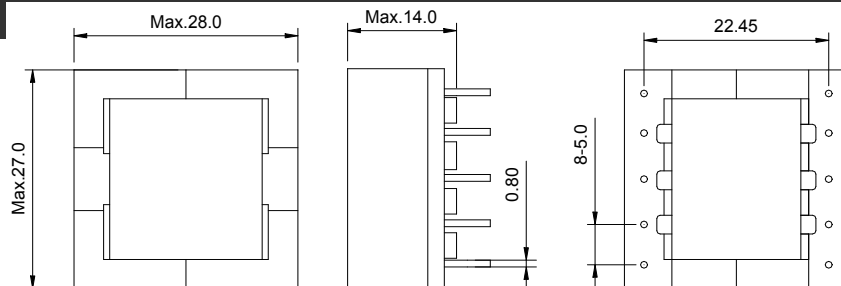
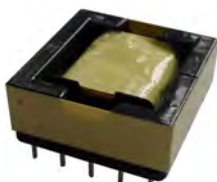


Applications: Switching regulator,Portable equipment **Moisture sensitivity level:** 1
Operating Power: 15W at132kHz(Reference value) **RoHS&HF compliance**
Operating temperature range: -40°C to +125°C (Including self-temperature rise)

DT001EFD2509H

Mechanical Dimension(Unit:mm)

Construction

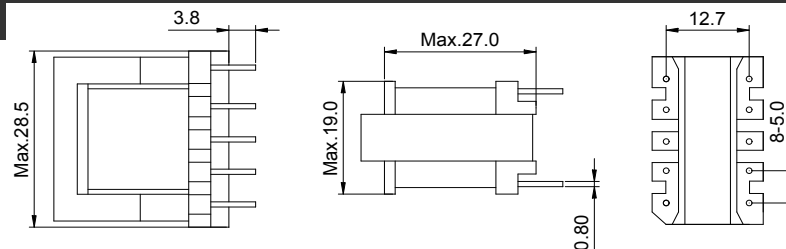


Applications: Switching regulator,Telecommunication **Moisture sensitivity level:** 1
Operating Power: 40W at500kHz(Reference value) **RoHS&HF compliance**
Operating temperature range: -40°C to +125°C (Including self-temperature rise)

DT001EE2507V

Mechanical Dimension(Unit:mm)

Construction



Applications: Switching regulator **Moisture sensitivity level:** 1
Operating Power: 15W at100kHz(Reference value) **RoHS&HF compliance**
Operating temperature range: -40°C to +125°C (Including self-temperature rise)

Application Notice

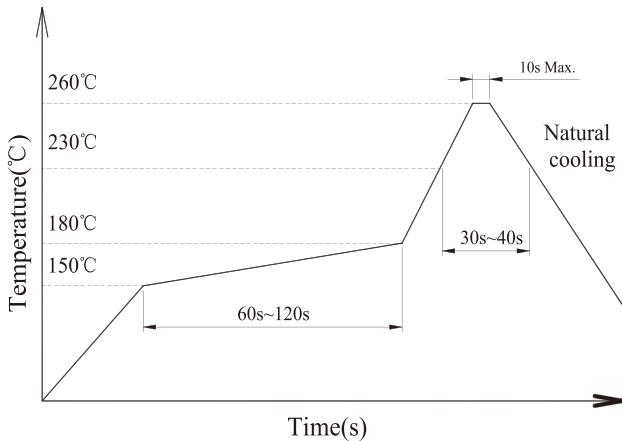
1.Storage Conditions

To maintain the solderability of terminal electrodes:

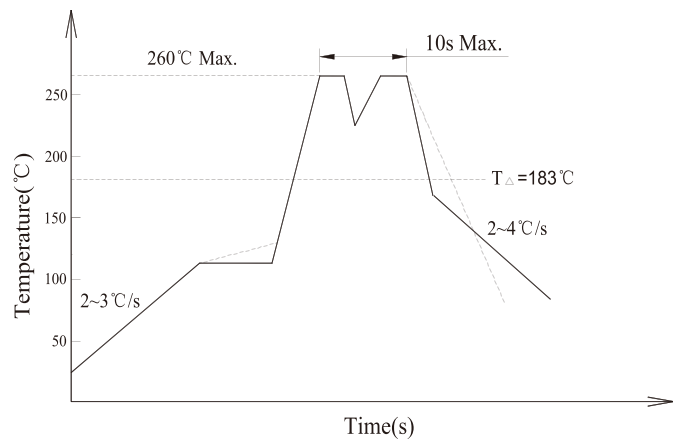
- (1)Temperature and humidity conditions:<35℃ and<35~65%RH
- (2)Recommendation:inductors should be used within 6 months from the time of delivery.
- (3)Packaging material should be kept away from where chlorine or sulfur exists.

2.Soldering

(1)Lead-free the recommended reflow condition(SMT Type)



(2)Lead-free recommended Wave soldering(DIP Type)



(3)Soldering Iron

- a.Use a soldering iron to solder inductors by hand,time does not exceed 350 degrees 3 seconds.
- b.When soldering iron welding,please try to avoid contacting the inductor itself.(definitely do not contact the coil)
- c.To solder inductors by soldering iron is not recommended.

3.Precautions

- a.When using our inductors,please carry out product assembling test and evaluation of product operating environment.
- b.Non-magnetic shielded inductors,when design circuit,should pay attention to its space allocation in order to avoid electromagnetic interference which can cause malfunctions.
- c.Do not place inductors near magnet or any magnetic objects.
- d.Do not use or store inductors in a corrosive gas environment.(example:salt,sulfur,acid,etc..)
- e.The catalogue specification for reference only.Please check the official specification from CHIKARA datasheet as approved.
- f.Inductance element described in this catalog,is generally applied to consumer electronic devices.For the following applications, please contact us, in order to confirm for the product information.
Life-threatening safety equipment,such as :Transport/Transportation/Disaster/Medical/public infocomm equipment...etc.
high security and reliability of applications,such as :Aerospace/Aviation/military equipment..etc,while for high security/high reliability of general electronic equipment/circuits,please adequate safety and reliability,append the protection circuit when necessary.