

# 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

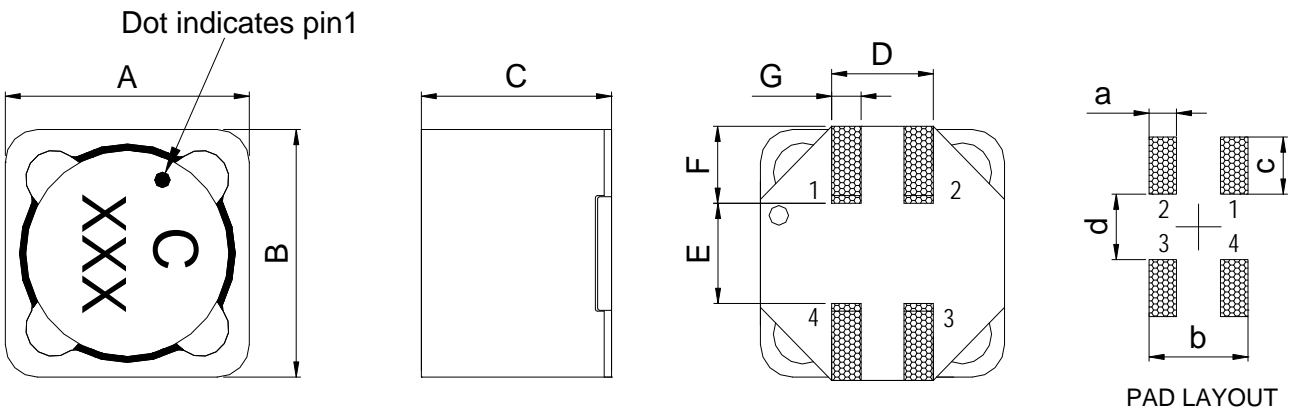
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- Winding to winding isolation 500Vrms
- RoHS&HF compliance



## Packaging

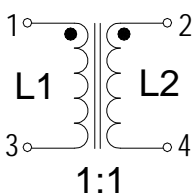
- Supplied in tape and reel packaging, 500pcs(SC01-1206), 400pcs(SC01-1208), 175pcs(SC01-1514), per 13-inch reel

## 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 <sup>1</sup> (A)Typ.	Irms <sup>2</sup> (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(Irms<sup>1</sup>) will cause the coil temperature rise approximately Δt of 40°C(both windings).
- Heat rated current(Irms<sup>2</sup>) will cause the coil temperature rise approximately Δt of 40°C(one winding).

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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

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## Electrical Characteristic

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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

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