

SMT Shielded Power Inductors

SDCR3010/SDCR3012/SDCR3015/SDCR4012A/SDCR4018/SDCR4020/SDCR4030

SDCR5020/SDCR5040/SDCR6020/SDCR6028/SDCR6045/SDCR8040



Features (特长)

- Magnetically shielded construction (闭磁路构造设计)
- Compact and thin (轻便薄小)
- Large Current and Low DCR (大电流低直流阻抗)

Applications (用途)

- DC-DC converter of portable equipment. (携带机器之直流转换器)
- Camcorder, LCD television set, Digital camera, P.D.A., Notebook. (摄影机、液晶电视、数位相机、P.D.A.、笔记型计算机)
- Small size communication equipment. (小型通信机器)

Product Identification (产品识别)

SDCR3010 — _____ (Ex. SDCR3010-100M)

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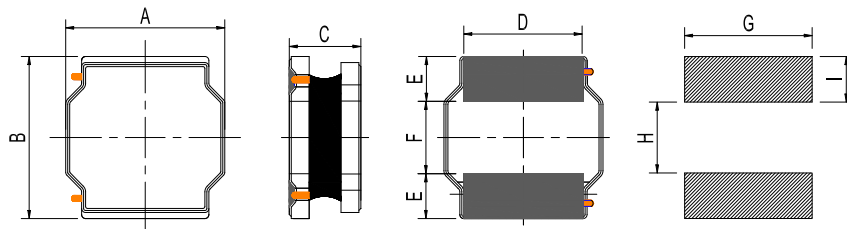
1. SMT Shielded Power Inductors (闭磁式功率电感)

(SDCR3010/SDCR3012/SDCR3015/SDCR4012A/SDCR4018/SDCR4020/SDCR4030)

2. Inductance (电感值)

3. Tolerance (误差值) (参照表 K:10%, L:15%, M:20%, N:30%)

Configurations & Dimensions (结构图及规格尺寸)



Unit In: mm

Type	A	B	C	D	E	F	G Typ	H Typ	I Typ
SDCR3010	3.0±0.2	3.0±0.2	1.0 Max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	1.5	0.8
SDCR3012	3.0±0.2	3.0±0.2	1.2 Max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	1.5	0.8
SDCR3015	3.0±0.2	3.0±0.2	1.5 Max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	1.5	0.8
SDCR4012A	4.0±0.2	4.0±0.2	1.2 Max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	1.9	1.1
SDCR4018	4.0±0.2	4.0±0.2	1.85 Max	3.3±0.3	1.0±0.2	2.0±0.3	3.7	1.9	1.1
SDCR4020	4.0±0.2	4.0±0.2	2.1 Max	3.3±0.3	1.0±0.2	2.0±0.3	3.7	1.9	1.1
SDCR4030	4.0±0.2	4.0±0.2	3.0 Max	3.3±0.3	1.0±0.2	2.0±0.3	3.7	1.9	1.1
SDCR5020	5.0±0.2	5.0±0.2	2.2 Max	4.0±0.3	1.35±0.2	2.3±0.3	4.2	2.3	1.4
SDCR5040	5.0±0.2	5.0±0.2	4.0 Max	4.0±0.3	1.35±0.2	2.3±0.3	4.2	2.3	1.4
SDCR6020	6.0±0.3	6.0±0.3	2.0 Max	4.9±0.3	1.55±0.3	2.9±0.3	1.7	2.8	5.7
SDCR6028	6.0±0.3	6.0±0.3	2.8 Max	4.9±0.3	1.55±0.3	2.9±0.3	1.7	2.8	5.7
SDCR6045	6.0±0.3	6.0±0.3	4.5 Max	4.9±0.3	1.55±0.3	2.9±0.3	1.7	2.8	5.7
SDCR8040	8.0±0.3	8.0±0.3	4.2 Max	6.3±0.3	2.0±0.3	4.0±0.3	7.5	3.8	2.2

♣Design as Customer' s Requested Specifications. (可依客户特殊需求设计)

Codes	L (μ H)	Tolerance	Freq. (Hz)	DCR (Ω) max							Isat (A)						
				3010	3012	3015	4012A	4018	4020	4030	3010	3012	3015	4012A	4018	4020	4030
R30	0.30	N	1MHz, 0.25V	-	-	15	-	-	-	-	-	-	4.60	-	-	-	-
R33	0.33	N	100KHz, 0.25V	-	21	-	-	-	13	-	-	3.00	-	-	-	7.50	-
R47	0.47	N	100KHz, 0.25V	-	33	20	-	-	18	11	-	2.20	4.00	-	-	7.50	7.50
R56	0.56	N	100KHz, 0.25V	-	-	20	-	18	-	14	-	-	3.30	-	6.50	-	6.00
R82	0.82	N	100KHz, 0.25V	-	40	-	-	-	-	-	-	2.05	-	-	-	-	-
1R0	1.0	N	100KHz, 0.25V	65	48	30	0.055	23	28	15	1.40	1.90	2.32	2.80	4.50	5.10	5.90
1R2	1.2	N	100KHz, 0.25V	-	-	-	-	28	29	-	-	-	-	-	4.30	4.70	-
1R5	1.5	N	100KHz, 0.25V	80	55	50	0.065	33	35	25	1.27	1.62	2.00	2.20	3.35	4.45	4.85
1R8	1.8	N	100KHz, 0.25V	-	-	55	-	44	45	30	-	-	1.75	-	3.00	4.00	4.25
2R2	2.2	N	100KHz, 0.25V	110	75	60	0.100	44	45	35	1.15	1.20	1.60	1.76	2.70	3.40	4.10
2R7	2.7	N	100KHz, 0.25V	-	-	70	-	-	-	-	-	-	1.52	-	-	-	-
3R3	3.3	M	100KHz, 0.25V	145	100	80	0.100	70	70	40	0.97	1.05	1.32	1.35	2.45	3.20	3.30
3R6	3.6	M	100KHz, 0.25V	-	-	-	-	-	-	53	-	-	-	-	-	-	3.10
3R9	3.9	M	100KHz, 0.25V	-	-	108	-	-	-	57	-	-	1.20	-	-	-	3.00
4R7	4.7	M	100KHz, 0.25V	225	120	125	0.163	90	80	60	0.75	0.90	1.10	1.15	1.70	2.35	2.90
5R6	5.6	M	100KHz, 0.25V	-	160	170	0.185	103	95	70	-	0.80	1.05	1.00	1.60	2.20	2.75
6R8	6.8	M	100KHz, 0.25V	305	190	200	0.228	124	125	75	0.65	0.75	0.85	1.15	1.45	2.00	2.60
7R5	7.5	M	100KHz, 0.25V	-	-	-	-	-	-	90	-	-	-	-	-	-	2.20
8R2	8.2	M	100KHz, 0.25V	-	-	230	-	180	150	100	-	-	0.80	-	1.40	1.75	2.10
100	10	M	100KHz, 0.25V	400	265	250	0.234	200	165	115	0.60	0.60	0.72	0.85	1.30	1.60	1.95
120	12	M	100KHz, 0.25V	-	-	288	-	230	175	140	-	-	0.70	-	1.15	1.50	1.70
150	15	M	100KHz, 0.25V	610	430	350	0.400	268	230	190	0.42	0.45	0.66	0.68	0.94	1.35	1.65
180	18	M	100KHz, 0.25V	-	-	430	0.550	320	-	215	-	-	0.56	0.60	0.86	-	1.40
220	22	M	100KHz, 0.25V	930	630	460	0.690	390	350	225	0.35	0.42	0.52	0.50	0.80	1.05	1.30
270	27	M	100KHz, 0.25V	-	800	630	-	-	-	-	-	0.35	0.48	-	-	-	-
330	33	M	100KHz, 0.25V	-	875	780	1.00	560	500	330	-	0.36	0.44	0.50	0.65	0.85	1.10
470	47	M	100KHz, 0.25V	-	1450	1200	1.43	850	710	500	-	0.27	0.35	0.35	0.57	0.74	0.90
560	56	M	100KHz, 0.25V	-	-	-	-	-	800	560	-	-	-	-	-	0.68	0.85
680	68	M	100KHz, 0.25V	-	-	-	-	-	1250	750	-	-	-	-	-	0.60	0.75
820	82	M	100KHz, 0.25V	-	-	-	-	-	-	950	-	-	-	-	-	-	0.68
101	100	M	100KHz, 0.25V	-	-	-	-	-	-	1150	-	-	-	-	-	-	0.60
151	150	M	100KHz, 0.25V	-	-	-	-	-	-	2350	-	-	-	-	-	-	0.50
181	180	M	100KHz, 0.25V	-	-	-	-	-	-	2500	-	-	-	-	-	-	0.40
221	220	M	100KHz, 0.25V	-	-	-	-	-	-	3000	-	-	-	-	-	-	0.40
331	330	M	100KHz, 0.25V	-	-	-	-	-	-	4400	-	-	-	-	-	-	0.30
471	470	M	100KHz, 0.25V	-	-	-	-	-	-	5500	-	-	-	-	-	-	0.30

Isat (A): The saturation current value (Isat) is the DC current value having inductance decrease down to 30%(at 20°C).

Codes	L (μ H)	Tolerance	Freq. (KHz)	DCR (Ω) max						Isat (A)					
				5020	5040	6020	6028	6045	8040	5020	5040	6020	6028	6045	8040
R22	0.22	N	100KHz, 0.25V	11	-	-	-	-	-	6.00	-	-	-	-	-
R24	0.24	N	100KHz, 0.25V	11	-	-	-	-	-	6.00	-	-	-	-	-
R33	0.33	N	100KHz, 0.25V	15	-	-	-	-	-	7.50	-	-	-	-	-
R47	0.47	N	100KHz, 0.25V	15	-	-	-	-	-	4.85	-	-	-	-	-
R56	0.56	N	100KHz, 0.25V	-	-	-	-	7.5	5	-	-	-	-	14.5	11.5
R68	0.68	N	100KHz, 0.25V	-	-	15	-	-	-	-	-	7.50	-	-	-
1R0	1.0	N	100KHz, 0.25V	20	13	20	12	10	8	4.33	7.35	4.80	6.70	9.00	9.85
1R2	1.2	N	100KHz, 0.25V	25	-	20	-	-	-	4.20	-	4.30	-	-	-
1R5	1.5	N	100KHz, 0.25V	26	15	25	16	12	10	4.10	6.30	4.30	6.00	7.50	8.15
1R8	1.8	N	100KHz, 0.25V	30	18	-	19	13	-	4.00	6.10	-	5.30	7.50	-
2R2	2.2	N	100KHz, 0.25V	38	19	35	20	13	12	3.85	4.90	3.75	5.10	6.50	7.10
2R7	2.7	N	100KHz, 0.25V	45	22	-	-	-	-	3.50	4.30	-	-	-	-
3R3	3.3	M	100KHz, 0.25V	46	24	45	25	20	17	3.25	3.95	3.15	3.63	5.30	6.50
3R6	3.6	M	100KHz, 0.25V	48	-	-	-	-	-	2.90	-	-	-	-	-
3R9	3.9	M	100KHz, 0.25V	50	27	-	-	20	-	2.90	3.55	-	-	4.90	-
4R7	4.7	M	100KHz, 0.25V	65	30	58	33	24	20	2.40	3.50	3.00	3.00	4.50	5.90
5R6	5.6	M	100KHz, 0.25V	72	33	70	45	31	24	2.30	3.20	2.40	2.80	3.70	5.50
6R8	6.8	M	100KHz, 0.25V	92	43	85	56	33	28	2.10	2.90	2.20	2.60	3.30	4.55
8R2	8.2	M	100KHz, 0.25V	100	55	-	68	45	35	1.90	3.00	-	2.40	3.20	4.20
100	10	M	100KHz, 0.25V	125	64	120	78	52	37	1.80	2.35	1.75	2.05	3.00	3.60
120	12	M	100KHz, 0.25V	-	-	-	88	58	45	-	-	-	1.80	2.80	3.30
150	15	M	100KHz, 0.25V	180	86	160	125	77	56	1.44	2.00	1.50	1.75	2.50	2.95
180	18	M	100KHz, 0.25V	-	-	-	130	-	58	-	-	-	1.55	-	2.70
220	22	M	100KHz, 0.25V	250	129	240	140	115	74	1.18	1.60	1.25	1.45	2.00	2.40
270	27	M	100KHz, 0.25V	300	165	350	180	120	80	1.10	1.50	1.15	1.40	1.90	2.15
330	33	M	100KHz, 0.25V	370	188	400	220	150	100	0.97	1.30	1.10	1.35	1.60	2.05
390	39	M	100KHz, 0.25V	-	225	-	225	180	-	-	1.20	-	1.25	1.50	-
470	47	M	100KHz, 0.25V	560	270	500	280	220	158	0.81	1.10	1.00	1.15	1.40	1.75
560	56	M	100KHz, 0.25V	-	375	-	-	260	160	-	1.00	-	-	1.30	1.55
680	68	M	100KHz, 0.25V	850	400	-	420	290	196	0.70	0.90	-	0.95	1.20	1.45
820	82	M	100KHz, 0.25V	950	-	-	550	355	245	0.65	-	-	0.80	1.10	1.30
101	100	M	100KHz, 0.25V	1100	560	-	670	430	295	0.57	0.75	-	0.65	1.00	1.15
121	120	M	100KHz, 0.25V	-	-	-	820	530	-	-	-	-	0.62	0.85	-
151	150	M	100KHz, 0.25V	1500	-	-	-	760	470	0.41	-	-	-	0.80	1.10
171	170	M	100KHz, 0.25V	-	-	-	-	-	538	-	-	-	-	-	0.95
181	180	M	100KHz, 0.25V	-	-	-	-	845	610	-	-	-	-	0.75	0.90
221	220	M	100KHz, 0.25V	2230	-	-	-	890	660	0.35	-	-	-	0.63	0.85
331	330	M	100KHz, 0.25V	-	-	-	-	-	970	-	-	-	-	-	0.68
471	470	M	100KHz, 0.25V	-	-	-	-	-	1400	-	-	-	-	-	0.60
681	680	M	100KHz, 0.25V	-	-	-	-	-	1750	-	-	-	-	-	0.50

Isat (A): The saturation current value (Isat) is the DC current value having inductance decrease down to 30%(at 20°C).