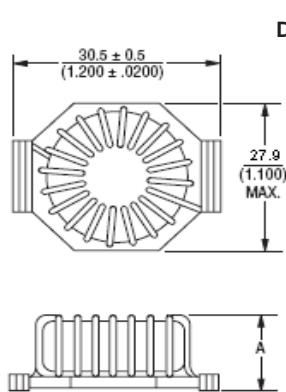


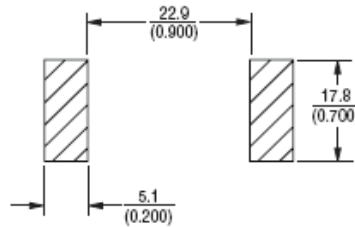
SMTC2110

SURFACE MOUNT HIGH CURRENT TOROID



Dimensions: $\frac{\text{mm}}{\text{(Inches)}}$

Recommended Pad Layout



Features

- High Current up to 22.7A
- Low Magnetic Radiation
- Low Core Loss

Electrical

Inductance range: 1.0uh to 1000uh
(additional values available)

Tolerance: 1.0uh~8.2uh 20%
10uh~1000uh 10%

Test Frequency:

- 1.0uh to 8.2uh @ 7.96MHz
- 10uh to 82uh @ 2.52MHz
- 100uh to 820uh @ .796MHz
- 1000uh @ .252MHz

Operating Temp: -55°C ~ +105°C

Storage Temp: -55°C ~ +105°C

Temp Rise: $\Delta T=30^{\circ}\text{C}$ Typical at rated IDC

Resistance to Solder Heat

Solder Temp: 260°C 10 sec. max

Test Equipment

(L) & (DCR): HP4263

Current Source: Model 1320 & 11021 LCR

Physical

Packaging: Box Trays

Marking: EIA Inductance Code

Allied Part Number	L(uH) ± 20% @ 1KHZ	DCR m(Ω) Max	IDC (A)	IDC (A) to decrease L by 30%	Dim A Max mm/(in)
SMTC2110-1R0M-RC	1.0	2	22.7	37.0	14.48/(0.57)
SMTC2110-1R2M-RC	1.2	2	20.3	30.0	14.48/(0.57)
SMTC2110-1R5M-RC	1.5	2	20.3	29.9	14.48/(0.57)
SMTC2110-1R8M-RC	1.8	3	18.5	25.0	14.48/(0.57)
SMTC2110-2R2M-RC	2.2	3	17.2	21.9	14.48/(0.57)
SMTC2110-2R7M-RC	2.7	4	16.0	18.8	14.48/(0.57)
SMTC2110-3R3M-RC	3.3	4	16.0	18.8	14.48/(0.57)
SMTC2110-3R9M-RC	3.9	4	15.1	16.6	14.48/(0.57)
SMTC2110-4R7M-RC	4.7	4	14.4	15.0	14.48/(0.57)
SMTC2110-5R6M-RC	5.6	5	13.7	13.6	14.48/(0.57)
SMTC2110-6R8M-RC	6.8	5	13.1	12.5	14.48/(0.57)
SMTC2110-8R2M-RC	8.2	6	12.6	11.5	14.48/(0.57)
	±10%				
SMTC2110-100K-RC	10	7	11.7	9.95	14.48/(0.57)
SMTC2110-120K-RC	12	7	11.3	9.35	14.48/(0.57)
SMTC2110-150K-RC	15	8	10.7	8.30	14.48/(0.57)
SMTC2110-180K-RC	18	9	10.2	7.50	14.48/(0.57)
SMTC2110-220K-RC	22	10	9.7	6.80	14.48/(0.57)
SMTC2110-270K-RC	27	14	8.2	5.97	13.72/(0.54)
SMTC2110-330K-RC	33	19	7.0	5.35	13.21/(0.52)
SMTC2110-390K-RC	39	20	6.8	5.00	15.75/(0.62)
SMTC2110-470K-RC	47	22	6.5	4.54	15.75/(0.62)
SMTC2110-560K-RC	56	24	6.2	4.15	15.75/(0.62)
SMTC2110-680K-RC	68	27	5.9	3.75	15.75/(0.62)
SMTC2110-820K-RC	82	29	5.6	3.40	15.75/(0.62)
SMTC2110-101K-RC	100	32	5.4	3.11	15.75/(0.62)
SMTC2110-121K-RC	120	35	5.1	2.82	15.75/(0.62)
SMTC2110-151K-RC	150	49	4.3	2.54	14.99/(0.99)
SMTC2110-181K-RC	180	66	3.7	2.30	13.46/(0.53)
SMTC2110-221K-RC	220	74	3.5	2.08	15.24/(0.60)
SMTC2110-271K-RC	270	82	3.4	1.86	15.24/(0.60)
SMTC2110-331K-RC	330	90	3.2	1.70	15.24/(0.60)
SMTC2110-391K-RC	390	98	3.1	1.56	15.24/(0.60)
SMTC2110-471K-RC	470	133	2.6	1.42	14.48/(0.57)
SMTC2110-561K-RC	560	146	2.5	1.30	14.48/(0.57)
SMTC2110-681K-RC	680	202	2.1	1.17	13.72/(0.54)
SMTC2110-821K-RC	820	221	2.0	1.07	15.24/(0.60)
SMTC2110-102K-RC	1000	244	1.9	0.97	15.24/(0.60)

All specifications subject to change without notice.



Inductance vs. Current

L(μH)	IDC (A) to decrease L by 10%	IDC (A) to decrease L by 20%	IDC (A) to decrease L by 30%	IDC (A) to decrease L by 40%	IDC (A) to decrease L by 50%
1.0	17.0	22.7	37.0	50.0	66.0
1.2	13.5	21.2	30.0	40.0	53.0
1.5	13.2	21.0	29.9	39.8	52.8
1.8	11.1	17.9	25.0	33.5	44.5
2.2	9.50	15.4	21.9	28.6	38.1
2.7	8.30	13.5	18.8	25.1	33.5
3.3	8.30	13.4	18.8	25.0	33.4
3.9	7.40	11.9	16.6	22.4	29.8
4.7	6.70	10.7	15.0	20.1	26.8
5.6	6.10	9.70	13.6	18.2	24.4
6.8	5.55	8.90	12.5	16.7	22.3
8.2	5.15	8.25	11.5	15.5	20.6
10	4.45	7.05	9.95	13.4	17.8
12	4.15	6.70	9.35	12.6	16.7
15	3.70	5.95	8.30	11.2	14.9
18	3.35	5.35	7.50	10.1	13.4
22	2.80	4.84	6.80	9.15	12.1
27	2.65	4.17	5.97	8.02	10.7
33	2.40	3.80	5.35	7.25	9.55
39	2.20	3.53	5.00	6.70	8.90
47	2.05	3.25	4.54	6.05	8.10
56	1.85	2.98	4.15	5.55	7.50
68	1.67	2.67	3.75	5.02	6.70
82	1.51	2.43	3.40	4.45	6.08
100	1.39	2.23	3.11	4.18	5.58
120	1.26	2.02	2.82	3.78	5.05
150	1.13	1.81	2.54	3.40	4.54
180	1.03	1.64	2.30	3.08	4.12
220	0.93	1.45	2.08	2.79	3.70
270	0.83	1.34	1.86	2.51	3.35
330	0.76	1.21	1.70	2.28	3.04
390	0.69	1.11	1.56	2.07	2.79
470	0.64	1.02	1.42	1.91	2.55
560	0.58	0.93	1.30	1.74	2.33
680	0.53	0.84	1.17	1.58	2.11
820	0.48	0.77	1.07	1.44	1.93
1000	0.43	0.69	0.97	1.30	1.74

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