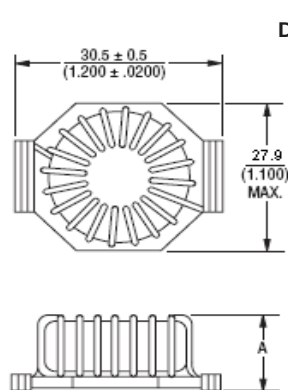


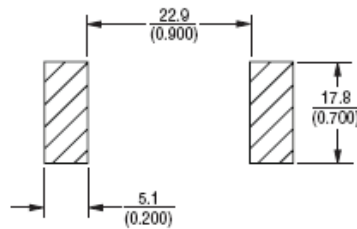
SMTC2120

SMD HIGH CURRENT TOROID



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

Recommended Pad Layout



Features

- High Current Capacity
- SMD
- Low Magnetic Radiation

Electrical

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

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

Test Frequency: 1KHz 0.1v

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: 40 Bags, 400 Carton

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.)
SMTC2120-1R0M-RC	1.0	2	25.4	34.4	20.83/(0.82)
SMTC2120-1R2M-RC	1.2	2	25.4	39.2	20.83/(0.82)
SMTC2120-1R5M-RC	1.5	3	22.0	35.6	20.83/(0.82)
SMTC2120-1R8M-RC	1.8	3	22.0	32.9	20.83/(0.82)
SMTC2120-2R2M-RC	2.2	3	19.7	29.5	20.83/(0.82)
SMTC2120-2R7M-RC	2.7	3	19.7	26.3	20.83/(0.82)
SMTC2120-3R3M-RC	3.3	4	18.0	34.0	20.83/(0.82)
SMTC2120-3R9M-RC	3.9	4	18.0	21.8	20.83/(0.82)
SMTC2120-4R7M-RC	4.7	5	16.6	20.0	20.83/(0.82)
SMTC2120-5R6M-RC	5.6	5	15.6	18.2	20.83/(0.82)
SMTC2120-6R8M-RC	6.8	6	14.7	16.7	20.83/(0.82)
SMTC2120-8R2M-RC	8.2	6	14.7	15.1	20.83/(0.82)
	±10%				
SMTC2120-100K-RC	10	7	13.9	13.7	20.83/(0.82)
SMTC2120-120K-RC	12	8	12.7	12.6	20.83/(0.82)
SMTC2120-150K-RC	15	9	12.2	11.0	20.83/(0.82)
SMTC2120-180K-RC	18	9	11.8	10.4	20.83/(0.82)
SMTC2120-220K-RC	22	11	11.0	9.23	20.83/(0.82)
SMTC2120-270K-RC	27	12	10.4	8.33	20.83/(0.82)
SMTC2120-330K-RC	33	13	10.1	7.54	20.83/(0.82)
SMTC2120-390K-RC	39	14	9.6	6.98	20.83/(0.82)
SMTC2120-470K-RC	47	19	8.2	6.30	20.07/(0.79)
SMTC2120-560K-RC	56	21	7.9	5.74	20.07/(0.79)
SMTC2120-680K-RC	68	29	6.7	5.29	19.56/(0.77)
SMTC2120-820K-RC	82	32	6.4	4.84	20.10/(0.87)
SMTC2120-101K-RC	100	35	6.1	4.32	20.10/(0.87)
SMTC2120-121K-RC	120	39	5.8	3.94	20.10/(0.87)
SMTC2120-151K-RC	150	43	5.5	3.56	20.10/(0.87)
SMTC2120-181K-RC	180	47	5.3	3.22	21.08/(0.83)
SMTC2120-221K-RC	220	52	5.0	2.93	21.08/(0.83)
SMTC2120-271K-RC	270	72	4.2	2.66	19.81/(0.78)
SMTC2120-331K-RC	330	100	3.6	2.50	19.81/(0.78)
SMTC2120-391K-RC	390	108	3.5	2.18	21.59/(0.85)
SMTC2120-471K-RC	470	119	3.3	2.00	21.59/(0.85)
SMTC2120-561K-RC	560	130	3.2	1.82	21.59/(0.85)
SMTC2120-681K-RC	680	142	3.0	1.67	21.59/(0.85)
SMTC2120-821K-RC	820	157	2.9	1.51	21.59/(0.85)
SMTC2120-102K-RC	1000	215	2.5	1.37	20.83/(0.82)

All specifications subject to change without notice.



Inductance vs. Current

L(uH)	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	15.3	24.5	34.4	45.9	61.3
1.2	17.4	27.9	39.2	52.2	69.7
1.5	15.8	25.3	35.6	47.4	63.3
1.8	14.6	23.4	32.9	43.8	58.5
2.2	13.1	21.0	29.5	39.3	52.5
2.7	11.7	18.7	26.3	35.1	46.9
3.3	15.1	24.2	34.0	45.3	60.5
3.9	9.70	15.5	21.8	29.1	38.9
4.7	8.90	14.3	20.0	26.7	35.7
5.6	8.10	13.0	18.2	24.3	32.4
6.8	7.40	11.9	16.7	22.2	29.6
8.2	6.70	10.7	15.1	20.1	26.8
10	6.10	9.77	13.7	18.3	24.4
12	5.60	8.97	12.6	16.8	22.4
15	4.90	7.85	11.0	14.7	19.6
18	4.60	7.37	10.4	13.8	18.4
22	4.10	6.57	9.23	12.3	16.4
27	3.70	5.93	8.33	11.1	14.8
33	3.35	5.37	7.54	10.1	13.4
39	3.10	4.97	6.98	9.30	12.4
47	2.80	4.49	6.30	8.40	11.2
56	2.55	4.09	5.74	7.65	10.2
68	2.35	3.76	5.29	7.05	9.41
82	2.15	3.44	4.84	6.45	8.61
100	1.92	3.08	4.32	5.76	7.69
120	1.75	2.80	3.94	5.25	7.01
150	1.58	2.53	3.56	4.74	6.33
180	1.43	2.29	3.22	4.29	5.73
220	1.30	2.08	2.93	3.90	5.21
270	1.18	1.89	2.66	3.54	4.73
330	1.11	1.78	2.50	3.33	4.45
390	0.97	1.55	2.18	2.91	3.89
470	0.89	1.43	2.00	2.67	3.57
560	0.81	1.30	1.82	2.43	3.24
680	0.74	1.19	1.67	2.22	2.96
820	0.67	1.07	1.51	2.01	2.68
1000	0.61	0.98	1.37	1.83	2.44

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