



Chilisin Electronics Singapore Pte Ltd

SMD Power Chokes, SSL Series



Feature:

These new SSL Series is designed for the smallest possible size, Low cost and High Performance.

It high energy storage and very low DC Resistance offer Higher saturated current which is suitable for DC to DC conversion for Notebook, Palm Top, Step up or Step down converters etc.

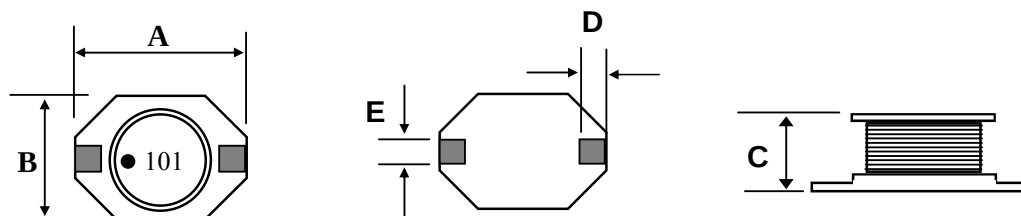
Ordering Code:

SSL - 0804 - T - 3R3 - K - □

Type ←
Size ←
B = Bulk / T = Tape ←

Inductance ←
N = No Lead / S = Std
Tolerance: K=±10%

Dimension in mm:



Type	A	B	C	D (ref.)	E (ref.)
SSL-0402	6.60 max	4.45 max	2.92 max	1.27	1.02
SSL-0802	12.9 ± 0.4	9.0 ± 0.4	3.0 max	2.6	1.2
SSL-0804	12.9 ± 0.4	9.0 ± 0.4	5.21 max	2.6	1.2
SSL-0810	12.9 ± 0.4	9.0 ± 0.4	11.43 max	2.6	1.2
SSL-1306	18.5 ± 0.5	15.5 ± 0.5	7.5 max	2.6	2.54

Electrical:

Type	Inductance	Rated Current
SSL-0402-□□□-□-□	1.0μH to 1000μH	2.9 Amps to 0.10Amps
SSL-0802-□□□-□-□	10μH to 1000μH	2.4 Amps to 0.1Amps
SSL-0804-□□□-□-□	1.0μH to 1000μH	9.0 Amps to 0.3Amps
SSL-0810-□□□-□-□	10μH to 1000μH	8.0 Amps to 0.8Amps
SSL-1306-□□□-□-□	1.0μH to 1000μH	8.6 Amps to 0.56Amps

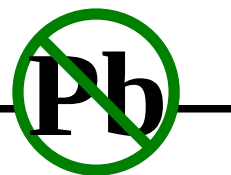
19, Woodlands Industrial Park E1 #03-07 Singapore 757719

Tel : 65 - 68921191 Fax : 65 - 67606760



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SSL - 0402 Series

PART NO.	Inductance (μ H) $\pm 20\%$	SRF (MHz)	RDC (Ω) MAX.	I sat (A)	Irms (A)
SSL-0402-1R0 M	1.0	130	0.05	2.90	2.90
SSL-0402-1R5 M	1.5	115	0.05	2.60	2.80
SSL-0402-2R2 M	2.2	90	0.07	2.30	2.4
SSL-0402-3R3 M	3.3	70	0.08	2.00	2.0
SSL-0402-4R7 M	4.7	50	0.09	1.50	1.5
SSL-0402-6R8 M	6.8	45	0.13	1.20	1.4
SSL-0402-100 M	10	35	0.16	1.10	1.1
SSL-0402-150 M	15	30	0.23	0.90	1.0
SSL-0402-220 M	22	20	0.37	0.70	0.8
SSL-0402-330 M	33	15	0.51	0.58	0.6
SSL-0402-470 M	47	14	0.64	0.50	0.5
SSL-0402-680 M	68	11	0.86	0.40	0.4
SSL-0402-101 M	100	9	1.27	0.31	0.3
SSL-0402-151 M	150	6	2.00	0.27	0.25
SSL-0402-221 M	220	5.5	2.65	0.22	0.2
SSL-0402-331 M	330	5	3.80	0.18	0.16
SSL-0402-471 M	470	4	5.06	0.16	0.15
SSL-0402-681 M	680	3	9.20	0.14	0.12
SSL-0402-102 M	1000	2	13.8	0.10	0.07

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ\text{C}$

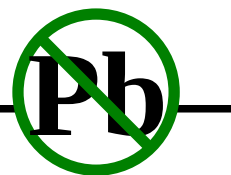
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SSL - 0802 Series

Part Number	Inductance at 100kHz 0.1Vrms ($\mu\text{H} \pm 20\%$)	DC Resistance ($\Omega \pm 15\%$)	I sat ² (Amps) Inductance drop = 10%
SSL-0802-100M	10	0.09	2.4
SSL-0802-150M	15	0.12	2.0
SSL-0802-220M	22	0.19	1.6
SSL-0802-330M	33	0.25	1.4
SSL-0802-470M	47	0.32	1.0
SSL-0802-680M	68	0.55	0.9
SSL-0802-101M	100	0.70	0.7
SSL-0802-151M	150	1.0	0.6
SSL-0802-221M	220	1.6	0.5
SSL-0802-331M	330	2.2	0.4
SSL-0802-471M	470	3.3	0.3
SSL-0802-681M	680	4.4	0.2
SSL-0802-102M	1000	7.0	0.1

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ\text{C}$

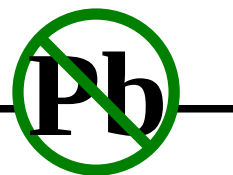
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SSL- 0804 Series

Part Number	Inductance at 100kHz 0.1Vrms ($\mu\text{H} \pm 20\%$)	DC Resistance ($\Omega \pm 15\%$)	I sat ² (Amps) Inductance drop = 10%
SSL-0804-1R0M	1.0	0.008	9.0
SSL-0804-1R5M	1.5	0.009	8.0
SSL-0804-2R2M	2.2	0.010	7.0
SSL-0804-3R3M	3.3	0.013	6.4
SSL-0804-4R7M	4.7	0.016	5.4
SSL-0804-6R8M	6.8	0.019	4.6
SSL-0804-100M	10	0.025	3.8
SSL-0804-150M	15	0.040	3.0
SSL-0804-220M	22	0.050	2.6
SSL-0804-330M	33	0.088	2.0
SSL-0804-470M	47	0.12	1.6
SSL-0804-680M	68	0.16	1.4
SSL-0804-101M	100	0.23	1.2
SSL-0804-151M	150	0.33	1.0
SSL-0804-221M	220	0.53	0.8
SSL-0804-331M	330	0.81	0.6
SSL-0804-471M	470	1.10	0.5
SSL-0804-681M	680	1.60	0.4
SSL-0804-102M	1000	2.15	0.3

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ\text{C}$

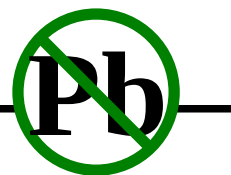
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SSL - 0810 Series

Part Number	Inductance ($\mu\text{H} \pm 20\%$)	DC Resistance (Ω max)	I sat ² (Amps)
SSL-0810-100M	10	0.033	8.0
SSL-0810-150M	15	0.042	7.0
SSL-0810-220M	22	0.054	5.5
SSL-0810-330M	33	0.080	4.0
SSL-0810-470M	47	0.10	3.8
SSL-0810-680M	68	0.17	3.0
SSL-0810-101M	100	0.22	2.5
SSL-0810-151M	150	0.34	2.0
SSL-0810-221M	220	0.44	1.6
SSL-0810-331M	330	0.70	1.2
SSL-0810-471M	470	0.95	1.0
SSL-0810-681M	680	1.20	1.0
SSL-0810-102M	1000	2.00	0.8

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ$

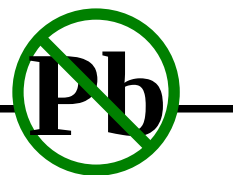
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SSL - 1306 Series

Part Number	Inductance ($\mu\text{H} \pm 20\%$)	DC Resistance ($\Omega \pm 15\%$)	I sat ² (Amps)	I rms ³ (Amps)
SSL-1306-1R0M	1.0	0.011	20	8.6
SSL-1306-2R2M	2.2	0.014	16	7.1
SSL-1306-3R3M	3.3	0.016	14	6.2
SSL-1306-5R6M	5.6	0.022	12	5.3
SSL-1306-100M	10	0.032	10	4.3
SSL-1306-150M	15	0.036	8.0	4.0
SSL-1306-220M	22	0.047	7.0	3.5
SSL-1306-330M	33	0.066	5.5	3.0
SSL-1306-470M	47	0.089	4.5	2.6
SSL-1306-680M	68	0.130	3.5	2.3
SSL-1306-101M	100	0.190	3.0	1.8
SSL-1306-151M	150	0.250	2.6	1.5
SSL-1306-221M	220	0.380	2.4	1.2
SSL-1306-331M	330	0.560	1.9	1.0
SSL-1306-471M	470	0.850	1.4	0.82
SSL-1306-681M	680	1.200	1.2	0.72
SSL-1306-102M	1000	1.800	1.0	0.56

M = $\pm 20\%$, K = $\pm 10\%$, J = $\pm 5\%$

- # Tested at 100 KHz, 0.1 Vrms
- # Inductance drop = 10% Typical at rated Isat
- # $\Delta T = 30^\circ\text{C}$ Typical at Irms
- # Operating Temperature range -40°C to $+85^\circ$

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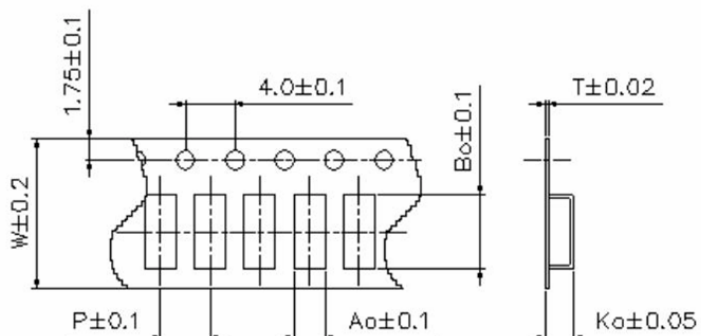


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Dimensions of Taping:

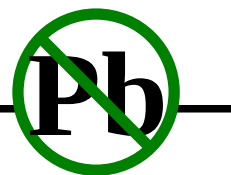


Series	W	P	A0	B0	K0	T	Quantity	
							7" Reel	13" Reel
SSL - 0402	12	8	4.8	6.9	3.0	0.25	750	2000
SSL - 0802	24	12	9.7	13.25	3.3	0.3		1000
SSL - 0804	24	12	9.7	13.25	5.4	0.3		500
SSL - 0810	24	12	9.7	13.25	11.7	0.3		225
SSL - 1306	32	20	15.4	18.8	8	0.4		250



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Reliability Test (Environmental Performances):

No.	Item	Specification	Test Condition															
1.	Temperature Cycle	Appearance No damage Impedance within ±20% Of the initial value	One Cycle <table><tr><th>Step</th><th>Temperate</th><th>Time (min)</th></tr><tr><td>1</td><td>-55°C</td><td>30</td></tr><tr><td>2</td><td>25°C</td><td>3</td></tr><tr><td>3</td><td>125°C</td><td>30</td></tr><tr><td>4</td><td>25°C</td><td>3</td></tr></table> Total 100 Cycles Measured after exposure in room condition = 24hrs	Step	Temperate	Time (min)	1	-55°C	30	2	25°C	3	3	125°C	30	4	25°C	3
Step	Temperate	Time (min)																
1	-55°C	30																
2	25°C	3																
3	125°C	30																
4	25°C	3																
2	Humidity Resistance		Temperature: +40°C ± 2°C Humidity: 90% to 95% Time 1000 ± 12 Hours Measured after exposure in room condition = 24hrs															
3	High Temperature Resistance		Temperature = 125°C ± 3°C Relative Humidity = 0% Applied Current = Rated Current as state Time = 1000 hrs ± 12 hrs Measure after exposure in room Condition = 24hrs															
4.	Temperature Shock		10 cycles (air to Air) (1 cycles shall consist of) 30 minutes exposure to -55°C 30 minutes exposure to 125°C 15 seconds maximum transition between temperatures Measure after exposure in room Condition = 24hrs															

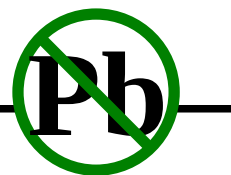
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Reliability Test (Mechanical Performances):

No.	Item	Specification	Test Condition
1.	Solderability	More than 90% of the terminal Electrode shall be covered with fresh solder	Pre heat = 150°C Pre heat Time = 1 minute Solder = Sn/Ag3.0/Cu0.5 (Pb –Free) Solder Temperature = 245°C ± 5°C Immersion Time = 4 ± 1 Sec
2.	Resistance to Soldering Heat	The chips shall not crack. More than 75% of the terminal Electrode Shall be covered with solder	Pre Heat = 150°C Pre heat Time = 1 minute Solder = Sn/Ag3.0/Cu0.5 (Pb –Free) Solder Temperature = 260°C ± 5°C Immersion Time = 10 ± 1 Sec
3.	Vibration		Test Device shall be soldered on the substrate Oscillation Freq.= 10 to 55 to 10Hz for 1 min Amplitude = 1.5mm Time = 2hrs for each axis (X,Y&Z) total 6 hrs