

Power Inductors

TL-SC103R/SC104RA/SC104RB/SC105R Series

Test Equipment and Conditions:

Inductance is measured with HP-4284A LCR Meter or equivalent.

Maximum allowable DC current is that which causes a 35% inductance reduction of the initial value, or coil temperature to rise by 30°C, whichever is smaller. (Reference ambient temperature 25°C)

Maximum allowable DC current is that which causes a 30% inductance reduction of the initial value, or the coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 25°C)

Operating temperature: -25°C ~ +85°C

Features:

Magnetically shielded surface mount inductor with high current rating.

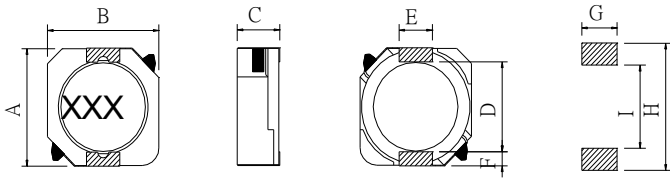
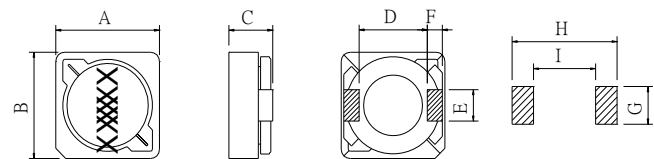
High inductance/High power inductor.

Applications:

Ideally used in variety of DC-DC converter applications.

Dimensions (mm)

	Part No.			
	TL-SC103R	TL-SC104RA	TL-SC104RB	TL-SC105R
A	10.4Max	10.4Max	10.3Max	10.3Max
B	10.3Max	10.3Max	10.3Max	10.3Max
C	3.0Max	4.0Max	4.5Max	5.0Max
D	7.7	7.7	6.5	6.5
E	3.0	3.0	3.0	3.0
F	1.2	1.2	1.6	1.6
G	3.6	3.6	3.6	3.6
H	10.7	10.7	10.7	10.7
I	7.3	7.3	6.0	6.0
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	 TL-SC103R~105R
	 TL-SC104RB

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Electrical Characteristics

TL-SC103R Series

Part NO.	Inductance (μ H)	DCR (Ω)Max	Rated DC Current (A)Max	Test Freq
TL-SC103R-1R3□	1.3	0.0185	3.50	100KHz,0.1V
TL-SC103R-2R5□	2.5	0.0255	3.20	100KHz,0.1V
TL-SC103R-3R3□	3.3	0.0378	3.20	100KHz,0.1V
TL-SC103R-3R8□	3.8	0.0387	3.15	100KHz,0.1V
TL-SC103R-4R0□	4.0	0.0395	3.10	100KHz,0.1V
TL-SC103R-5R0□	5.0	0.0406	3.00	100KHz,0.1V
TL-SC103R-5R2□	5.2	0.0452	2.90	100KHz,0.1V
TL-SC103R-6R0□	6.0	0.0483	2.90	100KHz,0.1V
TL-SC103R-7R0□	7.0	0.0508	2.85	100KHz,0.1V
TL-SC103R-8R0□	8.0	0.0556	2.80	100KHz,0.1V
TL-SC103R-100□	10	0.058	2.70	100KHz,0.1V
TL-SC103R-120□	12	0.072	2.25	100KHz,0.1V
TL-SC103R-150□	15	0.086	2.22	100KHz,0.1V
TL-SC103R-180□	18	0.116	1.90	100KHz,0.1V
TL-SC103R-220□	22	0.145	1.78	100KHz,0.1V
TL-SC103R-270□	27	0.175	1.50	100KHz,0.1V
TL-SC103R-330□	33	0.213	1.46	100KHz,0.1V
TL-SC103R-390□	39	0.269	1.32	100KHz,0.1V
TL-SC103R-470□	47	0.299	1.18	100KHz,0.1V
TL-SC103R-560□	56	0.336	1.10	100KHz,0.1V
TL-SC103R-680□	68	0.451	1.04	100KHz,0.1V
TL-SC103R-820□	82	0.534	0.94	100KHz,0.1V
TL-SC103R-101□	100	0.700	0.84	100KHz,0.1V
TL-SC103R-121□	120	0.765	0.76	100KHz,0.1V
TL-SC103R-151□	150	0.876	0.70	100KHz,0.1V

NOTE: □ Tolerance value : K = $\pm 10\%$, M = $\pm 20\%$, N = $\pm 30\%$.

Electrical Characteristics
TL-SC104R Series

Part NO.	Inductance (μH)	DCR (Ω)Max	Rated DC Current (A)Max	Test Freq
TL-SC104R-1R5□	1.5	0.012	7.00	100KHz,0.1V
TL-SC104R-2R7□	2.7	0.018	6.30	100KHz,0.1V
TL-SC104R-4R4□	4.4	0.025	5.70	100KHz,0.1V
TL-SC104R-5R6□	5.6	0.029	5.30	100KHz,0.1V
TL-SC104R-6R8□	6.8	0.032	5.00	100KHz,0.1V
TL-SC104R-7R5□	7.5	0.037	4.80	100KHz,0.1V
TL-SC104R-120□	12	0.050	4.20	100KHz,0.1V
TL-SC104R-150□	15	0.070	3.60	100KHz,0.1V
TL-SC104R-220□	22	0.100	2.90	100KHz,0.1V
TL-SC104R-330□	33	0.150	2.30	100KHz,0.1V
TL-SC104R-470□	47	0.185	2.10	100KHz,0.1V
TL-SC104R-680□	68	0.310	1.50	100KHz,0.1V
TL-SC104R-101□	100	0.410	1.35	100KHz,0.1V
TL-SC104R-151□	150	0.560	1.15	100KHz,0.1V
TL-SC104R-221□	220	0.870	0.92	100KHz,0.1V
TL-SC104R-331□	330	1.250	0.70	100KHz,0.1V
TL-SC104R-471□	470	1.650	0.50	100KHz,0.1V
TL-SC104R-681□	680	3.100	0.30	100KHz,0.1V
TL-SC104R-102□	1000	5.500	0.20	100KHz,0.1V

NOTE: □ Tolerance value : K = ±10%, M = ±20%, N = ±30%.

TL-SC105R Series

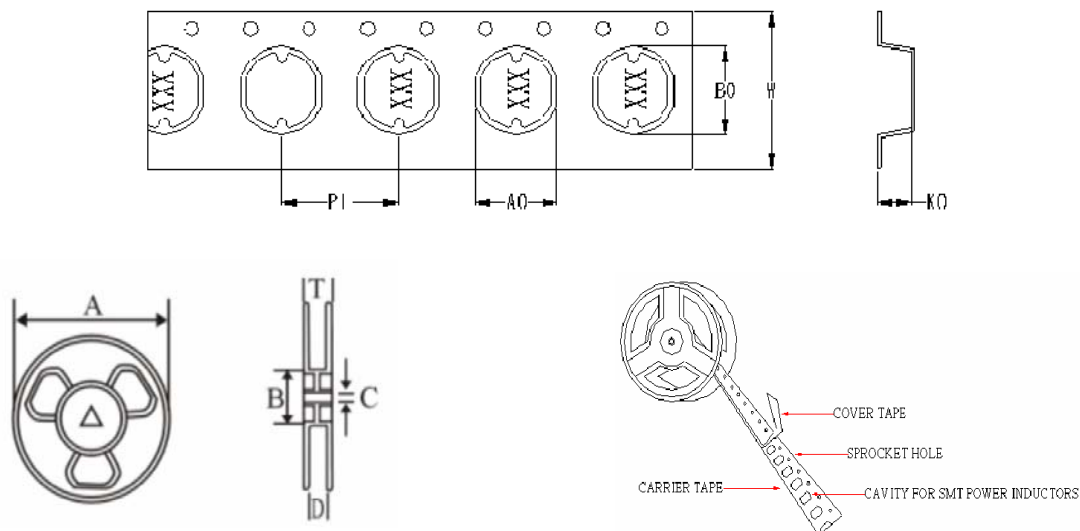
Part NO.	Inductance (μH)	DCR (Ω)Max	Rated DC Current (A)Max	Test Freq
TL-SC105R-100□	10	0.026	3.45	100KHz,0.1V
TL-SC105R-120□	12	0.032	3.40	100KHz,0.1V
TL-SC105R-150□	15	0.040	2.83	100KHz,0.1V
TL-SC105R-220□	22	0.059	2.44	100KHz,0.1V
TL-SC105R-330□	33	0.081	1.88	100KHz,0.1V
TL-SC105R-470□	47	0.122	1.56	100KHz,0.1V
TL-SC105R-560□	56	0.145	1.39	100KHz,0.1V
TL-SC105R-680□	68	0.193	1.36	100KHz,0.1V
TL-SC105R-101□	100	0.247	1.09	100KHz,0.1V
TL-SC105R-151□	150	0.355	0.91	100KHz,0.1V
TL-SC105R-221□	220	0.484	0.75	100KHz,0.1V
TL-SC105R-331□	330	0.780	0.60	100KHz,0.1V
TL-SC105R-471□	470	1.220	0.50	100KHz,0.1V
TL-SC105R-681□	680	1.519	0.43	100KHz,0.1V
TL-SC105R-102□	1000	1.964	0.35	100KHz,0.1V

NOTE: □ Tolerance value : K = ±10%, M = ±20%, N = ±30%.

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Package Styles:



Reel & Packing (mm)(Tolerance ± 0.5)

Part NO.	Dimensions of Reel					Packing Quantity(K)
	A	B	C	D	T	
TL-SC103R	338.6	102.6	8.1	12.6	11.3	1
TL-SC104R	337.5	102.6	8.0	12.5	11.5	1
TL-SC105R	339.5	102.6	8.0	12.5	10.6	0.8

Carrier Tape Dimensions(mm)

Part NO.	P1	A0	B0	W	K0	Packing Quantity(K)
TL-SC103R	22.1	11.2	11.3	13.5	2.5	1
TL-SC104R	22.5	11.3	11.5	13.5	3.6	1
TL-SC105R	22.6	11.2	11.6	13.8	4.6	0.8