

# Power Inductors

## TL-SC124R/SC125R/SC127R Series

### Features:

- Operating temperature: -25°C~ +85°C.
- Magnetically shielded surface mount inductor with high current rating.
- Low resistance minimizes power loss.

### Maximum Inductance drop:

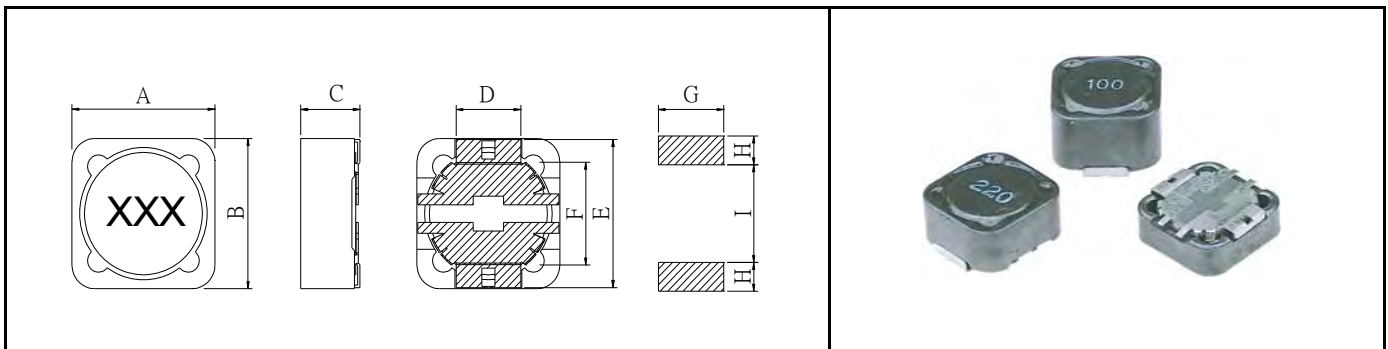
- Inductance is measured with HP- 4284A LCR meter or equivalent.
- Maximum allowable DC current which causes either a 25% inductance reduction of the initial value, or coil temperature to rise by 40°C, whichever is smaller (Reference ambient temperature 25 °C).

### Applications:

- Excellent for power line DC-DC conversion applications used in hard disk, notebook computers and other electronic equipment.

### Dimension (mm)

	Part Number		
	TL-SC124R	TL-SC125R	TL-SC127R
A	12.3 $\begin{smallmatrix} +0.0 \\ -0.3 \end{smallmatrix}$	12.3 $\begin{smallmatrix} +0.0 \\ -0.3 \end{smallmatrix}$	12.3 $\begin{smallmatrix} +0.0 \\ -0.3 \end{smallmatrix}$
B	12.3 $\begin{smallmatrix} +0.0 \\ -0.3 \end{smallmatrix}$	12.3 $\begin{smallmatrix} +0.0 \\ -0.3 \end{smallmatrix}$	12.3 $\begin{smallmatrix} +0.0 \\ -0.3 \end{smallmatrix}$
C	4.5 Max.	6.0 Max.	8.0 Max.
D	5.0 $\pm 0.2$	5.0 $\pm 0.2$	5.0 $\pm 0.2$
E	11.8 $\pm 0.2$	11.8 $\pm 0.2$	11.8 $\pm 0.2$
F	7.6 $\pm 0.3$	7.6 $\pm 0.3$	7.6 $\pm 0.3$
G	5.4 $\pm 0.2$	5.4 $\pm 0.2$	5.4 $\pm 0.2$
H	2.8 $\pm 0.2$	2.8 $\pm 0.2$	2.8 $\pm 0.2$
I	7.0 $\pm 0.2$	7.0 $\pm 0.2$	7.0 $\pm 0.2$
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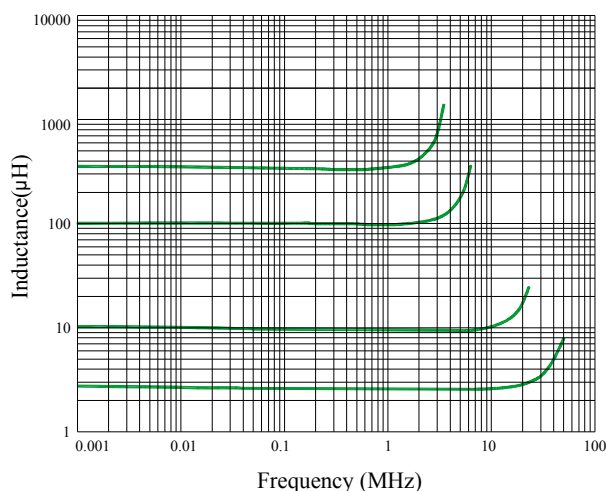


**Electrical Characteristics**
**TL-SC124R**

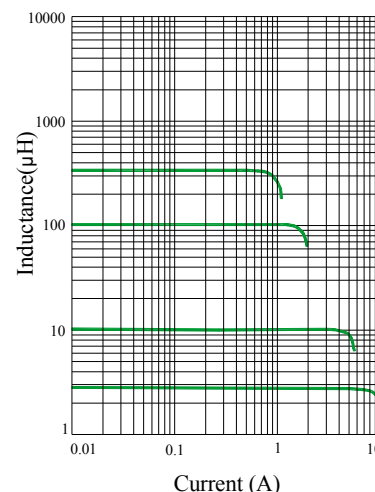
Part No.	Inductance (µH)	DCR (Ω)Max	Rated DC Current (A)Max	Test Freq
TL-SC124R-2R2□	2.2	0.008	7.00	100KHz,0.1V
TL-SC124R-2R7□	2.7	0.012	6.70	100KHz,0.1V
TL-SC124R-3R5□	3.5	0.015	6.60	100KHz,0.1V
TL-SC124R-3R9□	3.9	0.015	6.50	100KHz,0.1V
TL-SC124R-4R7□	4.7	0.018	5.60	100KHz,0.1V
TL-SC124R-5R6□	5.6	0.018	5.20	100KHz,0.1V
TL-SC124R-6R8□	6.8	0.022	4.90	100KHz,0.1V
TL-SC124R-7R6□	7.6	0.026	4.70	100KHz,0.1V
TL-SC124R-8R2□	8.2	0.026	4.60	100KHz,0.1V
TL-SC124R-100□	10	0.028	4.50	100KHz,0.1V
TL-SC124R-120□	12	0.038	4.00	100KHz,0.1V
TL-SC124R-150□	15	0.050	3.20	100KHz,0.1V
TL-SC124R-180□	18	0.057	3.10	100KHz,0.1V
TL-SC124R-220□	22	0.066	2.90	100KHz,0.1V
TL-SC124R-270□	27	0.080	2.80	100KHz,0.1V
TL-SC124R-330□	33	0.097	2.70	100KHz,0.1V
TL-SC124R-390□	39	0.132	2.10	100KHz,0.1V
TL-SC124R-470□	47	0.150	1.90	100KHz,0.1V
TL-SC124R-560□	56	0.180	1.80	100KHz,0.1V
TL-SC124R-680□	68	0.220	1.50	100KHz,0.1V
TL-SC124R-820□	82	0.260	1.30	100KHz,0.1V
TL-SC124R-101□	100	0.308	1.20	100KHz,0.1V
TL-SC124R-121□	120	0.380	1.10	100KHz,0.1V
TL-SC124R-151□	150	0.530	0.95	100KHz,0.1V
TL-SC124R-181□	180	0.620	0.85	100KHz,0.1V
TL-SC124R-221□	220	0.700	0.80	100KHz,0.1V
TL-SC124R-271□	270	0.875	0.60	100KHz,0.1V
TL-SC124R-331□	330	0.990	0.50	100KHz,0.1V

□ Tolerance: K = ±10%, M = ±20%.

Typical L vs Frequency



Typical L vs Current



**Electrical Characteristics TL-SC125R**

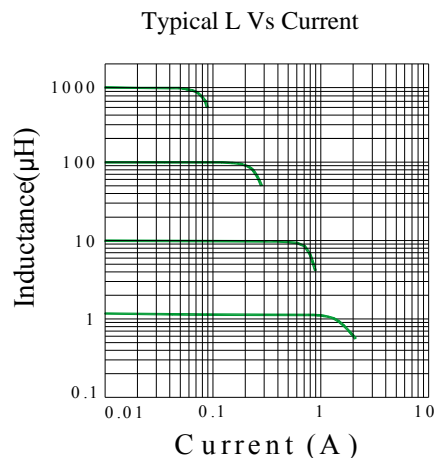
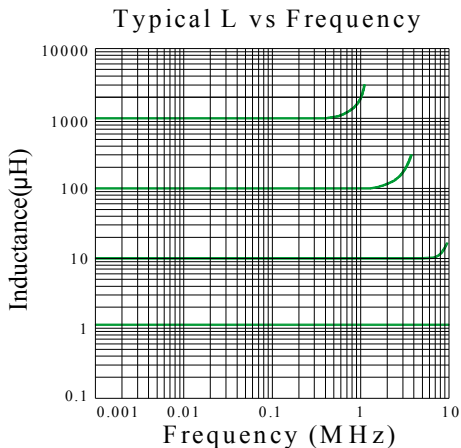
Part No.	Inductance ( $\mu$ H)	DCR ( $\Omega$ )Max	Rated DC Current (A)Max	Test Freq
TL-SC125R-1R8□	1.8	0.005	8.00	10KHz,0.1V
TL-SC125R-2R7□	2.7	0.007	7.00	10KHz,0.1V
TL-SC125R-3R9□	3.9	0.009	6.00	10KHz,0.1V
TL-SC125R-4R7□	4.7	0.012	5.30	10KHz,0.1V
TL-SC125R-6R1□	6.1	0.013	4.80	10KHz,0.1V
TL-SC104R-6R8□	6.8	0.014	4.70	10KHz,0.1V
TL-SC125R-7R6□	7.6	0.017	4.50	10KHz,0.1V
TL-SC125R-8R2□	8.2	0.020	4.30	10KHz,0.1V
TL-SC125R-100□	10	0.025	4.00	10KHz,0.1V
TL-SC125R-120□	12	0.027	3.50	10KHz,0.1V
TL-SC125R-150□	15	0.030	3.30	10KHz,0.1V
TL-SC125R-180□	18	0.034	3.00	10KHz,0.1V
TL-SC125R-220□	22	0.036	2.80	10KHz,0.1V
TL-SC125R-270□	27	0.051	2.30	10KHz,0.1V
TL-SC125R-330□	33	0.060	2.10	10KHz,0.1V
TL-SC125R-390□	39	0.068	2.00	10KHz,0.1V
TL-SC125R-470□	47	0.075	1.80	10KHz,0.1V
TL-SC125R-560□	56	0.110	1.70	10KHz,0.1V
TL-SC125R-680□	68	0.120	1.50	10KHz,0.1V
TL-SC125R-820□	82	0.140	1.40	10KHz,0.1V
TL-SC125R-101□	100	0.180	1.30	10KHz,0.1V
TL-SC125R-121□	120	0.200	1.10	10KHz,0.1V
TL-SC125R-151□	150	0.230	1.00	10KHz,0.1V
TL-SC125R-181□	180	0.290	0.90	10KHz,0.1V
TL-SC125R-221□	220	0.450	0.80	10KHz,0.1V
TL-SC125R-271□	270	0.500	0.75	10KHz,0.1V
TL-SC125R-331□	330	0.590	0.68	10KHz,0.1V
TL-SC125R-391□	390	0.690	0.65	10KHz,0.1V
TL-SC125R-471□	470	0.770	0.58	10KHz,0.1V
TL-SC125R-561□	560	0.860	0.54	10KHz,0.1V
TL-SC125R-681□	680	1.200	0.48	10KHz,0.1V
TL-SC125R-821□	820	1.340	0.43	10KHz,0.1V
TL-SC125R-102□	1000	1.530	0.40	10KHz,0.1V

□ Tolerance: K =  $\pm 10\%$ , M =  $\pm 20\%$

### Electrical Characteristics TL-SC127R

Part No.	Inductance (μH)	DCR (Ω)Max	Rated DC Current (A)Max	Test Freq
TL-SC127R-1R2□	1.2	7.0m	9.80	10KHz,0.1V
TL-SC127R-1R8□	1.8	11.5m	8.00	10KHz,0.1V
TL-SC127R-3R3□	3.3	13.5m	7.50	10KHz,0.1V
TL-SC127R-4R7□	4.7	15.8m	6.80	10KHz,0.1V
TL-SC127R-6R1□	6.1	17.6m	6.60	10KHz,0.1V
TL-SC127R-7R6□	7.6	20.0m	5.90	10KHz,0.1V
TL-SC127R-100□	10	21.6m	5.40	10KHz,0.1V
TL-SC127R-120□	12	24.3m	4.90	10KHz,0.1V
TL-SC127R-150□	15	27.0m	4.50	10KHz,0.1V
TL-SC127R-180□	18	39.2m	3.90	10KHz,0.1V
TL-SC127R-220□	22	43.2m	3.60	10KHz,0.1V
TL-SC127R-270□	27	45.9m	3.40	10KHz,0.1V
TL-SC127R-330□	33	64.8m	3.00	10KHz,0.1V
TL-SC127R-390□	39	72.9m	2.75	10KHz,0.1V
TL-SC127R-470□	47	77.0m	2.50	10KHz,0.1V
TL-SC127R-560□	56	97.0m	2.35	10KHz,0.1V
TL-SC127R-680□	68	0.10	2.10	10KHz,0.1V
TL-SC127R-820□	82	0.12	1.95	10KHz,0.1V
TL-SC127R-101□	100	0.15	1.70	10KHz,0.1V
TL-SC127R-121□	120	0.17	1.60	10KHz,0.1V
TL-SC127R-151□	150	0.19	1.42	10KHz,0.1V
TL-SC127R-181□	180	0.25	1.30	10KHz,0.1V
TL-SC127R-221□	220	0.35	1.16	10KHz,0.1V
TL-SC127R-271□	270	0.39	1.06	10KHz,0.1V
TL-SC127R-331□	330	0.48	0.95	10KHz,0.1V
TL-SC127R-391□	390	0.54	0.88	10KHz,0.1V
TL-SC127R-471□	470	0.79	0.79	10KHz,0.1V
TL-SC127R-561□	560	0.87	0.73	10KHz,0.1V
TL-SC127R-681□	680	1.00	0.67	10KHz,0.1V
TL-SC127R-821□	820	1.20	0.60	10KHz,0.1V
TL-SC127R-102□	1000	1.30	0.55	10KHz,0.1V

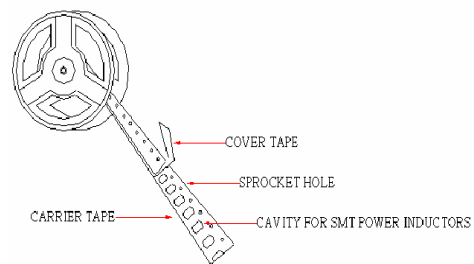
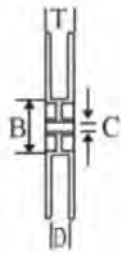
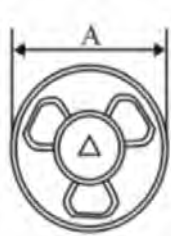
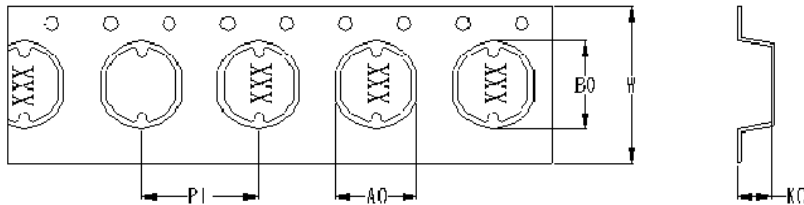
□ Tolerance: K = ±10%, M = ±20%



## Power Inductors

TL-SC124R/SC125R/SC127R Series

Packaging:



### Reel & Packing ( Tolerance $\pm 0.5$ mm)

Part No.	Dimensions of Reel (mm)					Packing Quantity(K)
	A	B	C	D	T	
TL-SC124R	338.5	102.5	7.6	12.0	17.8	1
TL-SC125R	338.6	102.6	7.8	12.6	17.9	1
TL-SC127R	338.5	102.6	7.8	12.8	17.6	0.5

### Carrier Tape Dimensions (Tolerance $\pm 0.5$ mm)

Part No.	P1	A0	B0	W	K0	Packing Quantity(K)
TL-SC124R	22.5	6.5	6.2	17.6	2.2	1
TL-SC125R	22.6	6.2	6.3	17.6	2.5	1
TL-SC127R	22.8	6.25	6.32	18.2	3.3	0.5