

# SCDS Series

## SMD Power Inductors

### FEATURES

- Halogen Free products
- Shielded construction
- High current SMD Inductor
- High efficiency

### APPLICATIONS

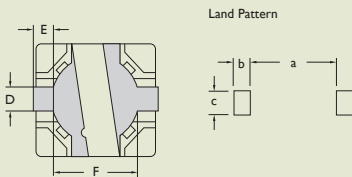
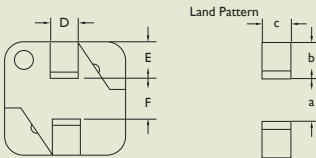
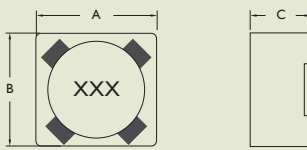
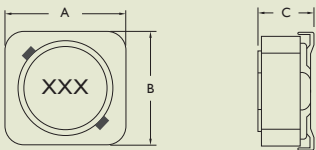
- Computer, DVD players and portable power devices
- LCD panels, LCD TV, Digital camera, DC-DC converters
- Noise filtering and filter chokes

### SHAPES AND DIMENSIONS

Unit: mm

SCDS62T/64T

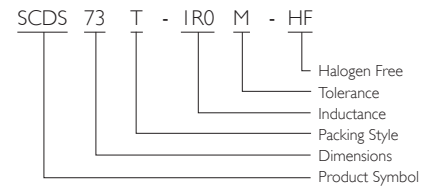
SCDS73T/74T



TYPE	A	B	C	D	E	F	a	b	c
SCDS62T	6.2 ± 0.3	5.9 ± 0.3	3.0 <sup>+0</sup>	1.5 ± 0.2	2.0 ± 0.3	4.6	4.6	1.40	1.90
SCDS64T	6.2 ± 0.3	5.9 ± 0.3	5.0 <sup>+0</sup>	1.5 ± 0.2	2.0 ± 0.3	4.6	4.6	1.40	1.90
SCDS73T	7.6 <sup>+0</sup>	7.6 <sup>+0</sup>	3.55 <sup>+0</sup>	2.0	1.13	6.0	3.5	2.50	3.25
SCDS74T	7.6 <sup>+0</sup>	7.6 <sup>+0</sup>	4.35 <sup>+0</sup>	2.0	1.13	6.0	3.5	2.50	3.25
SCDS124T	12.3 <sup>+0</sup>	12.3 <sup>+0</sup>	4.5 <sup>+0</sup>	5.0 typ	2.05 typ	10	7.6	2.65	5.50
SCDS125T	12.5 <sup>+0</sup>	12.5 <sup>+0</sup>	6.0 <sup>+0</sup>	4.9 typ	2.05 typ	10	6.1	3.85	5.50
SCDS127T	12.5 <sup>+0</sup>	12.5 <sup>+0</sup>	8.0 <sup>+0</sup>	4.9 typ	2.05 typ	10	6.1	3.85	5.50

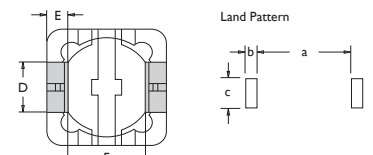
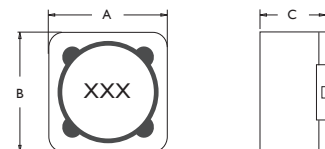


### PRODUCT IDENTIFICATION



■ Tolerance: J = ±5%, K = ±10%, L = ±15%, M = ±20%, P = ±25%, N = ±30%, Y = min

SCDS124T/125T/127T




**ELECTRICAL CHARACTERISTICS SCDS62T**

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY	DC RESISTANCE (m $\Omega$ ) at 20 °C		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS62T-2R9M	2.90	+40 / -20	7.96 MHz	50	68	1.94
SCDS62T-4R0M	4.00	+40 / -20	7.96 MHz	59	80	1.63
SCDS62T-5R5M	5.50	+40 / -20	7.96 MHz	71	96	1.40
SCDS62T-6R3M	6.30	+40 / -20	7.96 MHz	77	100	1.30
SCDS62T-7R1M	7.10	+40 / -20	7.96 MHz	81	110	1.22
SCDS62T-8R0M	8.00	+40 / -20	7.96 MHz	87	120	1.15
SCDS62T-100M	10.00	20	1 KHz	110	150	1.10
SCDS62T-120M	12.00	20	1 KHz	150	200	1.00
SCDS62T-150M	15.00	20	1 KHz	170	230	0.90
SCDS62T-180M	18.00	20	1 KHz	200	270	0.80
SCDS62T-220M	22.00	20	1 KHz	250	340	0.74
SCDS62T-270M	27.00	20	1 KHz	290	380	0.66
SCDS62T-330M	33.00	20	1 KHz	330	450	0.59
SCDS62T-390M	39.00	20	1 KHz	370	490	0.54
SCDS62T-470M	47.00	20	1 KHz	510	690	0.50
SCDS62T-560M	56.00	20	1 KHz	580	780	0.46
SCDS62T-680M	68.00	20	1 KHz	830	1070	0.42
SCDS62T-820M	82.00	20	1 KHz	930	1210	0.38
SCDS62T-101M	100.00	20	1 KHz	107	1390	0.34
SCDS62T-121M	120.00	20	1 KHz	1460	1900	0.31
SCDS62T-151M	150.00	20	1 KHz	1680	2180	0.28
SCDS62T-181M	180.00	20	1 KHz	2130	2770	0.26
SCDS62T-221M	220.00	20	1 KHz	2400	3120	0.23
SCDS62T-271M	270.00	20	1 KHz	3370	4380	0.22
SCDS62T-331M	330.00	20	1 KHz	3800	4940	0.19

Note:

Isat: DC current at which the inductance drops 25% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40$  °C



## ELECTRICAL CHARACTERISTICS SCDS64T

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz)	DC RESISTANCE (m $\Omega$ ) at 20 °C		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS64T-100M	10	20		120	88	1.35
SCDS64T-120M	12	20		130	97	1.20
SCDS64T-150M	15	20		180	130	1.10
SCDS64T-180M	18	20		240	180	1.00
SCDS64T-220M	22	20		270	200	0.91
SCDS64T-270M	27	20		300	220	0.82
SCDS64T-330M	33	20		330	250	0.75
SCDS64T-390M	39	20		370	270	0.69
SCDS64T-470M	47	20		520	380	0.62
SCDS64T-560M	56	20		560	410	0.58
SCDS64T-680M	68	20		630	470	0.52
SCDS64T-820M	82	20		710	530	0.47
SCDS64T-101M	100	20		1030	760	0.43
SCDS64T-121M	120	20		1150	850	0.39
SCDS64T-151M	150	20		1680	1290	0.35
SCDS64T-181M	180	20		1870	1440	0.32
SCDS64T-221M	220	20		2080	1600	0.29
SCDS64T-271M	270	20		2370	1820	0.26
SCDS64T-331M	330	20		2670	2050	0.23
SCDS64T-391M	390	20		2940	2260	0.22
SCDS64T-471M	470	20		3930	3020	0.20
SCDS64T-561M	560	20		5430	4180	0.18
SCDS64T-681M	680	20		7320	5630	0.17
SCDS64T-821M	820	20		8240	6340	0.15
SCDS64T-102M	1000	20		9260	7130	0.14

Note:

Isat: DC current at which the inductance drops 25% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40\text{ }^{\circ}\text{C}$


**ELECTRICAL CHARACTERISTICS SCDS73T**

<b>PART NO.</b>	<b>INDUCTANCE (<math>\mu</math>H) <math>\pm</math>20%</b>	<b>Isat (A) Max.</b>	<b>Irms (A) Max.</b>	<b>DC RESISTANCE (<math>\Omega</math>) Typical</b>
SCDS73T-R33M	0.33	14.40	6.21	0.0073
SCDS73T-1R0M	1.00	7.97	5.28	0.0102
SCDS73T-1R5M	1.50	6.52	4.67	0.0130
SCDS73T-2R2M	2.20	5.52	4.15	0.0165
SCDS73T-3R3M	3.30	4.22	3.31	0.0259
SCDS73T-4R7M	4.70	3.78	3.09	0.0297
SCDS73T-6R8M	6.80	3.12	2.55	0.0435
SCDS73T-8R2M	8.20	2.66	2.19	0.05920
SCDS73T-100M	10.00	2.47	2.08	0.06560
SCDS73T-150M	15.00	2.05	1.83	0.0844
SCDS73T-220M	22.00	1.67	1.62	0.1070
SCDS73T-330M	33.00	1.35	1.31	0.1660
SCDS73T-470M	47.00	1.14	1.08	0.2410
SCDS73T-680M	68.00	0.96	0.89	0.3580
SCDS73T-820M	82.00	0.89	0.86	0.3840
SCDS73T-101M	100.00	0.79	0.73	0.5270
SCDS73T-151M	150.00	0.65	0.58	0.8510
SCDS73T-221M	220.00	0.53	0.52	1.0500
SCDS73T-331M	330.00	0.44	0.42	1.5900
SCDS73T-471M	470.00	0.37	0.35	2.3600
SCDS73T-681M	680.00	0.31	0.29	3.4700
SCDS73T-821M	820.00	0.28	0.27	3.9300
SCDS73T-102M	1000.00	0.25	0.26	4.3400

Note:

Isat: DC current at which the inductance drops 25% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS SCDS74T

PART NO.	INDUCTANCE ( $\mu$ H) $\pm$ 20%	Isat (A) Max.	Irms (A) Max.	DC RESISTANCE ( $\Omega$ ) Typical
SCDS74T-R33M	0.33	18.40	6.26	0.0074
SCDS74T-1R0M	1.00	10.20	5.39	0.0099
SCDS74T-1R5M	1.50	8.35	4.94	0.0118
SCDS74T-2R2M	2.20	7.06	4.76	0.0126
SCDS74T-3R3M	3.30	5.40	3.94	0.0183
SCDS74T-4R7M	4.70	4.37	3.34	0.0254
SCDS74T-6R8M	6.80	3.67	2.60	0.0418
SCDS74T-8R2M	8.20	3.40	2.53	0.0441
SCDS74T-100M	10.00	3.17	2.41	0.0489
SCDS74T-150M	15.00	2.48	2.11	0.0637
SCDS74T-220M	22.00	2.13	1.75	0.0925
SCDS74T-330M	33.00	1.73	1.41	0.1430
SCDS74T-470M	47.00	1.41	1.15	0.2160
SCDS74T-680M	68.00	1.19	1.03	0.2650
SCDS74T-820M	82.00	1.11	0.91	0.3450
SCDS74T-101M	100.00	0.99	0.86	0.3830
SCDS74T-151M	150.00	0.81	0.69	0.5910
SCDS74T-221M	220.00	0.66	0.56	0.9070
SCDS74T-331M	330.00	0.54	0.45	1.4100
SCDS74T-471M	470.00	0.46	0.40	1.7400
SCDS74T-681M	680.00	0.38	0.33	2.5800
SCDS74T-821M	820.00	0.35	0.31	2.9300
SCDS74T-102M	1000.00	0.31	0.27	3.8900

Note:

Isat: DC current at which the inductance drops 25% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$


**ELECTRICAL CHARACTERISTICS SCDS124T**

PART NO.	INDUCTANCE ( $\mu$ H) $\pm$ 20%	Isat (A) Max.	I <sub>rms</sub> (A) Max.	DC RESISTANCE (m $\Omega$ )	
				Typical	Max.
SCDS124T-R47M	0.47	24.40	16.00	2.20	2.70
SCDS124T-1R0M	1.00	18.00	13.90	3.00	3.60
SCDS124T-1R5M	1.50	14.00	11.10	4.75	5.70
SCDS124T-2R2M	2.20	11.45	9.10	5.92	7.10
SCDS124T-3R9M	3.90	8.40	7.00	12.50	15.00
SCDS124T-4R7M	4.70	7.65	6.50	13.50	16.20
SCDS124T-6R8M	6.80	6.47	5.60	18.06	21.70
SCDS124T-8R2M	8.20	6.22	5.20	21.67	26.00
SCDS124T-100M	10.00	5.80	4.50	23.33	28.00
SCDS124T-120M	12.00	4.96	4.10	31.67	38.00
SCDS124T-150M	15.00	4.62	3.60	37.30	44.80
SCDS124T-180M	18.00	4.32	3.40	46.97	56.40
SCDS124T-220M	22.00	3.83	3.20	53.99	64.80
SCDS124T-270M	27.00	3.44	2.80	66.67	80.00
SCDS124T-330M	33.00	3.12	2.60	80.83	97.00
SCDS124T-390M	39.00	2.85	2.30	110.00	132.00
SCDS124T-470M	47.00	2.63	2.20	124.66	149.60
SCDS124T-560M	56.00	2.35	2.00	144.32	173.20
SCDS124T-680M	68.00	2.13	1.80	183.33	220.00
SCDS124T-820M	82.00	1.94	1.70	212.72	255.30
SCDS124T-101M	100.00	1.79	1.50	256.67	308.00
SCDS124T-121M	120.00	1.65	1.30	311.18	373.40
SCDS124T-151M	150.00	1.44	1.30	371.02	445.20
SCDS124T-181M	180.00	1.30	1.10	501.66	602.00
SCDS124T-221M	220.00	1.15	1.00	558.00	669.60
SCDS124T-271M	270.00	1.09	0.88	725.00	870.00
SCDS124T-331M	330.00	0.92	0.83	825.00	990.00
SCDS124T-471M	470.00	0.74	0.68	1242.50	1491.00
SCDS124T-681M	680.00	0.65	0.56	1845.83	2215.00
SCDS124T-821M	820.00	0.62	0.53	2109.17	2351.00
SCDS124T-102M	1000.00	0.53	0.44	2898.00	3477.00

Note:

Isat: DC current at which the inductance drops 25% from its value without current

I<sub>rms</sub>: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS SCDS125T

PART NO.	INDUCTANCE ( $\mu$ H) $\pm$ 20%	Isat (A) Max.	Irms (A) Max.	DC RESISTANCE ( $\Omega$ ) Typical
SCDS125T-R47M	0.47	33.000	17.60	0.0018
SCDS125T-1R0M	1.00	23.600	15.00	0.0024
SCDS125T-1R5M	1.50	18.300	13.80	0.0029
SCDS125T-2R2M	2.20	15.000	10.90	0.0045
SCDS125T-3R3M	3.30	12.700	9.26	0.0063
SCDS125T-4R7M	4.70	9.710	7.18	0.0105
SCDS125T-6R8M	6.80	8.680	6.64	0.0123
SCDS125T-8R2M	8.20	7.860	5.54	0.0176
SCDS125T-100M	10.00	7.170	5.35	0.0189
SCDS125T-150M	15.00	5.690	4.27	0.0298
SCDS125T-220M	22.00	4.710	3.70	0.0396
SCDS125T-330M	33.00	3.840	3.28	0.0505
SCDS125T-470M	47.00	3.240	2.71	0.0740
SCDS125T-680M	68.00	2.700	2.22	0.1010
SCDS125T-820M	82.00	2.390	2.05	0.1280
SCDS125T-101M	100.00	2.200	1.78	0.1700
SCDS125T-151M	150.00	1.810	1.48	0.2480
SCDS125T-221M	220.00	1.510	1.19	0.3840
SCDS125T-331M	330.00	1.220	1.06	0.4820
SCDS125T-471M	470.00	1.020	0.87	0.7180
SCDS125T-681M	680.00	0.850	0.70	1.1000
SCDS125T-821M	820.00	0.770	0.60	1.4900
SCDS125T-102M	1000.00	0.700	0.57	1.6900

Note:

Isat: DC current at which the inductance drops 25% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40\text{ }^{\circ}\text{C}$


**ELECTRICAL CHARACTERISTICS SCDS127T**

<b>PART NO.</b>	<b>INDUCTANCE (<math>\mu</math>H) <math>\pm</math>20%</b>	<b>Isat (A) Max.</b>	<b>Irms (A) Max.</b>	<b>DC RESISTANCE (<math>\Omega</math>) Typical</b>
SCDS127T-R47M	0.47	56.00	17.90	0.00195
SCDS127T-1R0M	1.00	40.00	15.50	0.00313
SCDS127T-1R5M	1.50	31.10	13.50	0.00341
SCDS127T-2R2M	2.20	25.50	12.50	0.00402
SCDS127T-3R3M	3.30	21.50	10.50	0.00567
SCDS127T-4R7M	4.70	16.50	8.25	0.00917
SCDS127T-6R8M	6.80	13.30	7.34	0.01160
SCDS127T-8R2M	8.20	12.20	6.32	0.01570
SCDS127T-100M	10.00	11.20	6.04	0.01720
SCDS127T-150M	15.00	9.66	5.03	0.02470
SCDS127T-220M	22.00	7.57	4.00	0.03910
SCDS127T-330M	33.00	6.22	3.23	0.06000
SCDS127T-470M	47.00	5.28	2.95	0.07190
SCDS127T-680M	68.00	4.44	2.44	0.10500
SCDS127T-820M	82.00	4.06	2.09	0.14300
SCDS127T-101M	100.00	3.64	1.96	0.16300
SCDS127T-151M	150.00	3.01	1.59	0.24700
SCDS127T-221M	220.00	2.43	1.29	0.37600
SCDS127T-331M	330.00	2.01	1.04	0.57400
SCDS127T-471M	470.00	1.68	0.85	0.86100
SCDS127T-681M	680.00	1.39	0.76	1.08000
SCDS127T-821M	820.00	1.27	0.65	1.47000
SCDS127T-102M	1000.00	1.14	0.61	1.66000

Note:

Isat: DC current at which the inductance drops 25% from its value without current

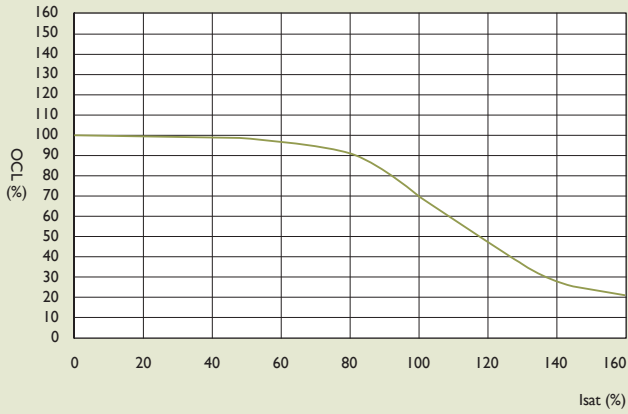
Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$



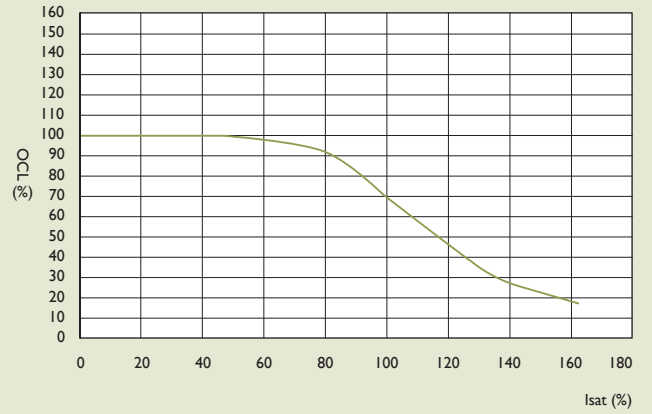


## TYPICAL ELECTRICAL CHARACTERISTICS

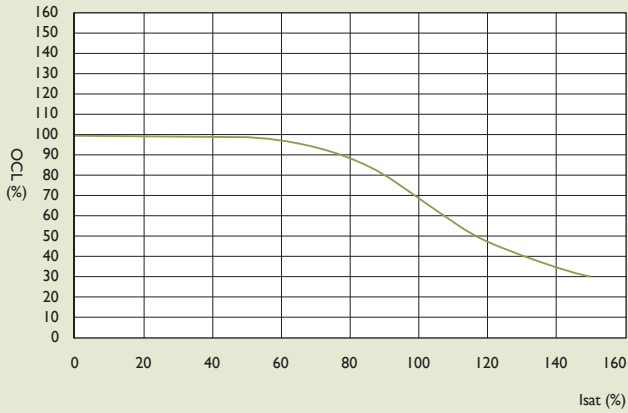
SCDS73T, OCL vs. Isat



SCDS74T, OCL vs. Isat



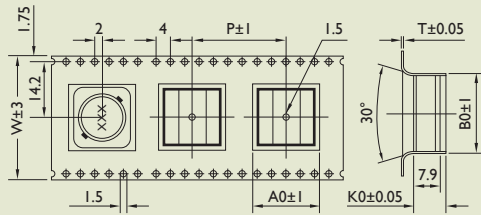
SCDS127T, OCL vs. Isat





## TAPE DIMENSIONS

Unit: mm



TYPE	A0	B0	K0	P	W	T
SCDS62T	6.50	6.20	3.3	12	16	0.4
SCDS64T	6.50	6.20	5.5	12	16	0.4
SCDS73T	7.90	7.90	3.8	12	16	0.4
SCDS74T	7.90	7.90	4.7	12	16	0.4
SCDS124T	12.60	12.60	5.2	16	24	0.4
SCDS125T	13.00	13.00	6.3	18	24	0.5
SCDS127T	13.00	13.00	8.3	20	24	0.5

## PACKAGING QUANTITY

TYPE	BULK	QUANTITY/REEL	CASKET/REEL	CASKET	QUANTITY/BOX
SCDS62T	v	1350	3	5	20250
SCDS64T	v	1100	3	5	16500
SCDS73T	v	1350	3	5	20250
SCDS74T	v	1100	3	5	16500
SCDS124T	v	750	3	5	11250
SCDS125T	v	600	3	5	9000
SCDS127T	v	350	3	5	5250

# SCDS Series

## SMD Power Inductors

### FEATURES

Halogen Free products

Shielded construction

Low profile for large current

### APPLICATIONS

Computer, DVD players and portable power devices

LCD panels, LCD TV, digital camera, DC-DC converters

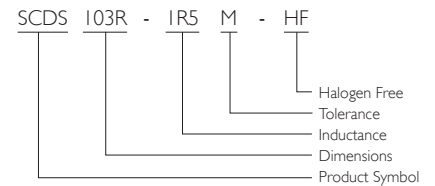
Noise filtering and filter chokes

### SHAPES AND DIMENSIONS

TYPE	A	B	C	D	E	F	a	b	c
SCDS103R	10.3 <sup>+0</sup>	10.5 <sup>+0</sup>	3.0 <sup>+0</sup>	1.2	7.7	3.0	7.3	3.3	1.6
SCDS104R	10.3 <sup>+0</sup>	10.5 <sup>+0</sup>	4.0 <sup>+0</sup>	1.2 ± 0.15	7.7 ± 0.3	3.0 ± 0.1	7.3	1.6	3.2
SCDS105R	10.3 <sup>+0</sup>	10.5 <sup>+0</sup>	5.0 <sup>+0</sup>	1.2	7.70	3.0	7.3	1.6	3.2

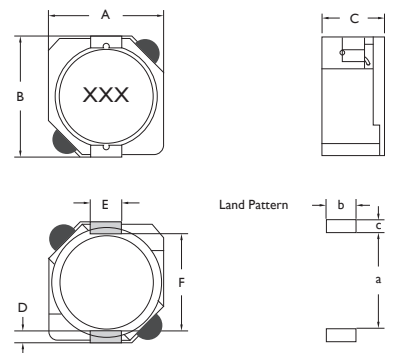


### PRODUCT IDENTIFICATION



■ Tolerance: J = ±5%, K = ±10%, L = ±15%, M = ±20%,  
P = ±25%, N = ±30%, Y = min

Unit: mm




**ELECTRICAL CHARACTERISTICS SCDS103R**

PART NO.	INDUCTANCE ( $\mu$ H) $\pm$ 20%	Isat (A) Max.	I <sub>rms</sub> (A) Max.	DC RESISTANCE (m $\Omega$ )	
				Typical	Max.
SCDS103R-1R1M	1.10	9.50	7.00	6.50	7.90
SCDS103R-1R8M	1.80	7.41	5.90	9.10	11.00
SCDS103R-2R8M	2.80	6.08	5.10	12.10	14.50
SCDS103R-3R9M	3.90	5.13	4.30	16.40	20.00
SCDS103R-5R2M	5.20	4.75	3.70	22.90	27.50
SCDS103R-6R8M	6.80	3.90	3.50	24.90	30.00
SCDS103R-8R2M	8.20	3.54	3.30	28.40	34.10
SCDS103R-100M	10.00	3.18	2.80	40.20	48.00
SCDS103R-150M	15.00	2.66	2.30	57.30	68.80
SCDS103R-220M	22.00	2.19	1.80	95.50	114.60
SCDS103R-330M	33.00	1.81	1.60	113.60	136.30
SCDS103R-470M	47.00	1.52	1.30	166.60	200.00
SCDS103R-680M	68.00	1.24	1.10	253.10	303.70
SCDS103R-820M	82.00	1.14	1.00	332.40	382.30
SCDS103R-101M	100.00	1.05	0.86	375.00	450.00
SCDS103R-121M	120.00	0.95	0.80	523.40	602.00
SCDS103R-151M	150.00	0.86	0.68	590.00	700.00

**Note:**

Inductance test frequency at 100KHz

Isat: DC current at which the inductance drops 35% from its value without current

 I<sub>rms</sub>: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS SCDS104R

PART NO.	INDUCTANCE ( $\mu\text{H}$ ) $\pm 20\%$	Isat (A) Max.	I <sub>rms</sub> (A) Max.	DC RESISTANCE (m $\Omega$ )	
				Typical	Max.
SCDS104R-1R5M	1.50	10.00	6.50	6.00	8.10
SCDS104R-2R5M	2.50	7.80	6.10	7.00	9.00
SCDS104R-3R8M	3.80	6.40	5.50	9.60	13.00
SCDS104R-5R2M	5.20	5.50	5.40	14.00	17.00
SCDS104R-7R0M	7.00	4.80	4.50	17.00	20.00
SCDS104R-8R2M	8.20	4.60	3.98	24.00	29.00
SCDS104R-100M	10.00	4.40	3.80	26.00	35.00
SCDS104R-150M	15.00	3.60	3.10	37.00	50.00
SCDS104R-220M	22.00	2.90	2.50	54.00	73.00
SCDS104R-330M	33.00	2.45	2.20	69.00	93.00
SCDS104R-470M	47.00	2.10	1.90	95.00	128.00
SCDS104R-680M	68.00	1.65	1.42	152.00	183.00
SCDS104R-820M	82.00	1.47	1.29	214.00	260.00
SCDS104R-101M	100.00	1.35	1.25	225.00	304.00
SCDS104R-151M	150.00	1.15	0.85	356.00	430.00
SCDS104R-221M	220.00	0.92	0.70	530.00	640.00
SCDS104R-331M	330.00	0.70	0.52	810.00	1090.00

Note:

Inductance test frequency at 100KHz

Isat: DC current at which the inductance drops 35% from its value without current

I<sub>rms</sub>: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$


**ELECTRICAL CHARACTERISTICS SCDS105R**

PART NO.	INDUCTANCE ( $\mu$ H) $\pm$ 20%	Isat (A) Max.	I <sub>rms</sub> (A) Max.	DC RESISTANCE (m $\Omega$ )	
				Typical	Max.
SCDS105R-R80M	0.80	13.50	9.70	3.20	4.00
SCDS105R-1R5M	1.50	10.50	8.60	4.00	5.00
SCDS105R-2R2M	2.20	9.25	7.52	5.60	6.80
SCDS105R-3R3M	3.30	8.20	6.50	8.00	10.00
SCDS105R-4R7M	4.70	6.70	6.13	9.50	11.90
SCDS105R-6R8M	6.80	5.80	5.45	13.00	16.50
SCDS105R-8R2M	8.20	5.00	5.24	15.10	19.00
SCDS105R-100M	10.00	4.58	4.80	18.00	22.50
SCDS105R-120M	12.00	4.10	3.94	24.30	30.40
SCDS105R-150M	15.00	3.70	3.80	26.00	32.50
SCDS105R-180M	18.00	3.30	3.39	32.80	41.00
SCDS105R-220M	22.00	3.00	3.12	38.70	48.40
SCDS105R-270M	27.00	2.80	2.82	42.60	53.30
SCDS105R-330M	33.00	2.50	2.56	57.50	71.90
SCDS105R-390M	39.00	2.35	2.35	60.70	75.90
SCDS105R-470M	47.00	2.10	2.06	89.00	111.00
SCDS105R-560M	56.00	1.94	1.96	98.00	123.00
SCDS105R-680M	68.00	1.70	1.84	111.00	139.00
SCDS105R-820M	82.00	1.58	1.60	147.00	184.00
SCDS105R-101M	100.00	1.45	1.52	164.00	205.00
SCDS105R-121M	120.00	1.30	1.30	223.00	279.00
SCDS105R-151M	150.00	1.15	1.26	238.00	298.00
SCDS105R-181M	180.00	1.08	1.18	273.00	341.00
SCDS105R-221M	220.00	0.98	1.00	377.00	472.00
SCDS105R-271M	270.00	0.90	0.96	410.00	513.00
SCDS105R-331M	330.00	0.80	0.83	554.00	693.00
SCDS105R-391M	390.00	0.72	0.76	648.00	810.00
SCDS105R-471M	470.00	0.62	0.64	855.00	1069.00
SCDS105R-561M	560.00	0.60	0.62	970.00	1213.00
SCDS105R-681M	680.00	0.55	0.56	1095.00	1369.00
SCDS105R-821M	820.00	0.50	0.54	1185.00	1481.00
SCDS105R-102M	1000.00	0.48	0.43	1528.00	1950.00

Note:

Inductance test frequency at 100KHz

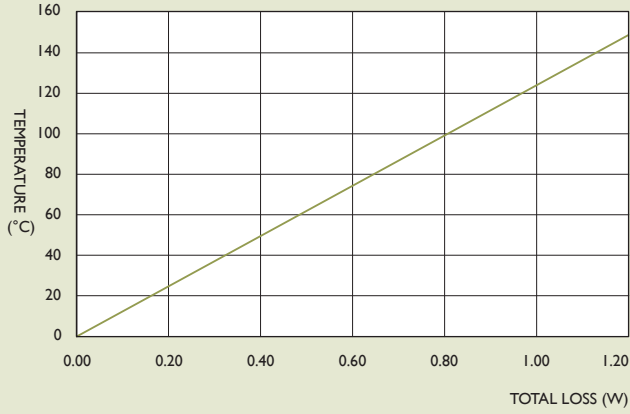
Isat: DC current at which the inductance drops 35% from its value without current

I<sub>rms</sub>: The actual current when temperature of coil becomes  $\Delta T = 40^{\circ}\text{C}$

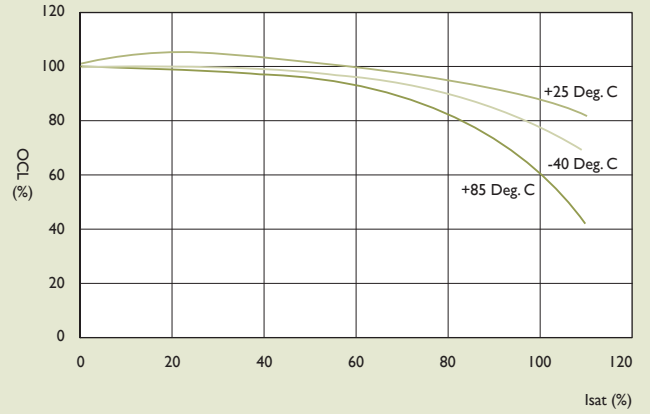


## TYPICAL ELECTRICAL CHARACTERISTICS

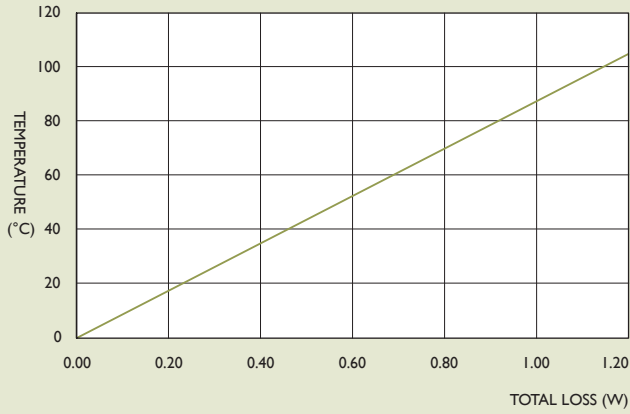
SCDS103R, TEMPERATURE RISE vs. TOTAL LOSS



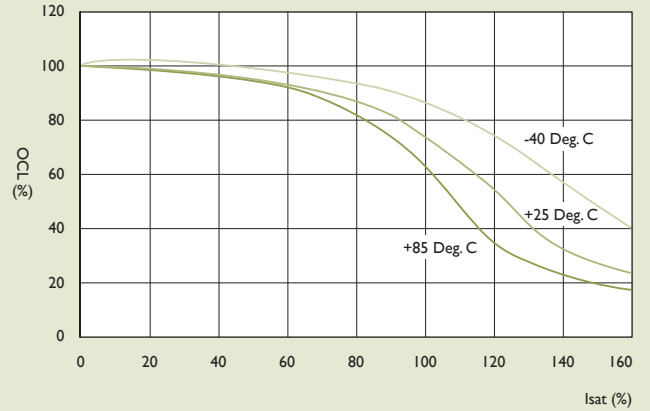
SCDS103R, INDUCTANCE CHARACTERISTICS



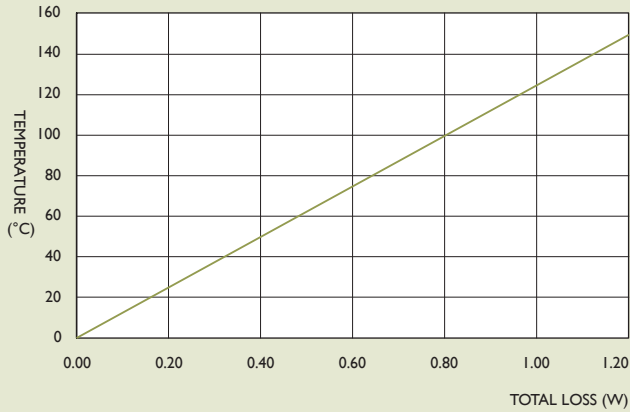
SCDS104R, TEMPERATURE RISE vs. TOTAL LOSS



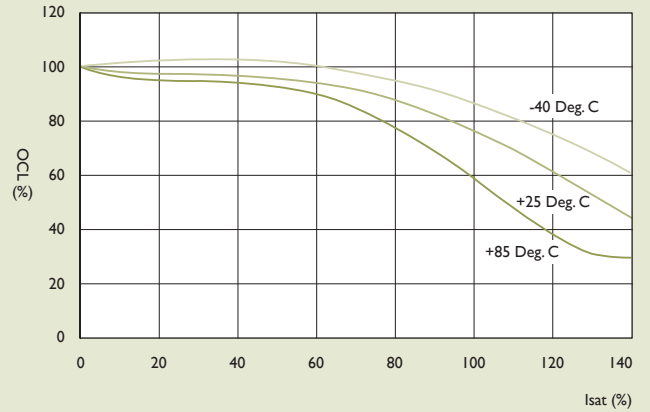
SCDS104R, INDUCTANCE CHARACTERISTICS



SCDS105R, TEMPERATURE RISE vs. TOTAL LOSS



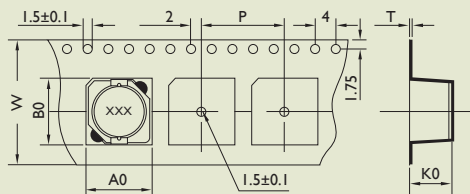
SCDS105R, INDUCTANCE CHARACTERISTICS





## TAPE DIMENSIONS

Unit: mm



TYPE	A0	B0	K0	P	W	T
SCDS103R	10.8	11.0	3.2	16	24	0.05
SCDS104R	10.8	11.0	4.2	16	24	0.05
SCDS105R	10.8	11.0	5.0	16	24	0.05

## PACKAGING QUANTITY

TYPE	BULK	QUANTITY/REEL	CASKET/REEL	CASKET	QUANTITY/BOX
SCDS103R	v	1000	2	2	4000
SCDS104R	v	850	2	2	3400
SCDS105R	v	500	2	2	2000



# SCDS Series

## SMD Power Inductors

### FEATURES

Halogen Free products

Shielded construction

Low profile products

High efficiency

### APPLICATIONS

Computer, DVD players and portable power devices

LCD panels, LCD TV, digital camera, DC-DC converters

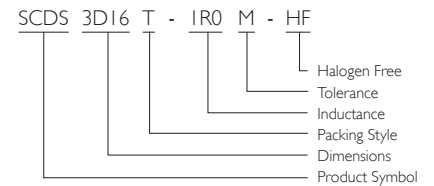
Noise filtering and filter chokes

### SHAPES AND DIMENSIONS

TYPE	A	B	C	D	E	F	a	b	c
SCDS3D16T	3.8 ± 0.2	3.8 ± 0.2	1.8 <sup>+0</sup>	5.2 <sup>+0</sup>	1.15	3.6	5.2	2.4	1.5
SCDS4D18T	4.7 ± 0.3	4.7 ± 0.3	2.0 <sup>+0</sup>	6.9 <sup>+0</sup>	1.5	4.5	5.3	1.5	5.3
SCDS4D28T	4.7 ± 0.3	4.7 ± 0.3	3.0 <sup>+0</sup>	6.9 <sup>+0</sup>	1.5	4.5	5.3	1.5	5.3
SCDS5D18T	5.7 ± 0.3	5.7 ± 0.3	2.0 <sup>+0</sup>	8.2 <sup>+0</sup>	2.0	5.5	6.3	2.0	6.3
SCDS5D28T	5.7 ± 0.3	5.7 ± 0.3	3.0 <sup>+0</sup>	8.2 <sup>+0</sup>	2.0	5.5	6.3	2.0	6.3
SCDS6D28T	6.7 ± 0.3	6.7 ± 0.3	3.0 <sup>+0</sup>	9.5 <sup>+0</sup>	2.0	6.5	7.3	2.0	7.3
SCDS6D38T	6.7 ± 0.3	6.7 ± 0.3	4.0 <sup>+0</sup>	9.5 <sup>+0</sup>	2.0	6.5	7.3	2.0	7.3

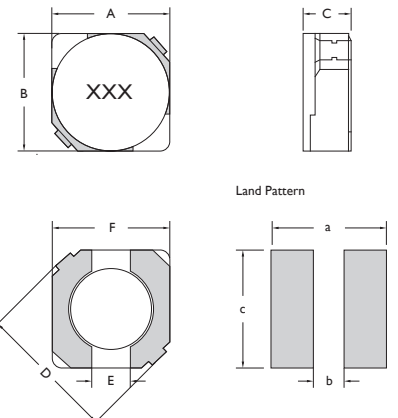


### PRODUCT IDENTIFICATION



■ Tolerance: J = ±5%, K = ±10%, L = ±15%, M = ±20%,  
P = ±25%, N = ±30%, Y = min

Unit: mm




**ELECTRICAL CHARACTERISTICS SCDS3DI6T**

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/1V)	DC RESISTANCE (m $\Omega$ )		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS3DI6T-R26N	0.26	30.0	100.0	27.5	21.0	3.60
SCDS3DI6T-R47N	0.47	30.0	100.0	35.0	27.0	2.75
SCDS3DI6T-R70N	0.70	30.0	100.0	43.0	33.0	2.25
SCDS3DI6T-1R1N	1.10	30.0	100.0	50.0	38.0	1.90
SCDS3DI6T-1R5N	1.50	30.0	100.0	52.0	40.0	1.55
SCDS3DI6T-2R2N	2.20	30.0	100.0	72.0	55.0	1.20
SCDS3DI6T-3R3N	3.30	30.0	100.0	85.0	65.0	1.10
SCDS3DI6T-4R7N	4.70	30.0	100.0	105.0	80.0	0.90
SCDS3DI6T-6R8N	6.80	30.0	100.0	170.0	130.0	0.73
SCDS3DI6T-100N	10.00	30.0	100.0	210.0	160.0	0.55
SCDS3DI6T-150N	15.00	30.0	100.0	295.0	225.0	0.45
SCDS3DI6T-220N	22.00	30.0	100.0	430.0	330.0	0.40
SCDS3DI6T-330N	33.00	30.0	100.0	675.0	520.0	0.32

Note:

Isat: DC current at which the inductance drops 35% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40\text{ }^{\circ}\text{C}$



## ELECTRICAL CHARACTERISTICS SCDS4D18T

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm\%$ )	TEST FREQUENCY	DC RESISTANCE (m $\Omega$ )		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS4D18T-1R0N	1.00	30.0	7.96 MHz	45.0	35.0	1.72
SCDS4D18T-2R2N	2.20	30.0	7.96 MHz	75.0	58.0	1.32
SCDS4D18T-2R7N	2.70	30.0	7.96 MHz	105.0	80.0	1.28
SCDS4D18T-3R3N	3.30	30.0	7.96 MHz	110.0	85.0	1.04
SCDS4D18T-3R9N	3.90	30.0	7.96 MHz	155.0	120.0	0.88
SCDS4D18T-4R7N	4.70	30.0	7.96 MHz	162.0	125.0	0.84
SCDS4D18T-5R6N	5.60	30.0	7.96 MHz	170.0	130.0	0.80
SCDS4D18T-6R8N	6.80	30.0	7.96 MHz	200.0	155.0	0.76
SCDS4D18T-8R2N	8.20	30.0	7.96 MHz	245.0	190.0	0.68
SCDS4D18T-100N	10.00	30.0	100 KHz	200.0	148.0	0.61
SCDS4D18T-120N	12.00	30.0	100 KHz	210.0	156.0	0.56
SCDS4D18T-150N	15.00	30.0	100 KHz	240.0	178.0	0.50
SCDS4D18T-180N	18.00	30.0	100 KHz	338.0	250.0	0.48
SCDS4D18T-220N	22.00	30.0	100 KHz	397.0	294.0	0.41
SCDS4D18T-270N	27.00	30.0	100 KHz	441.0	327.0	0.35
SCDS4D18T-330N	33.00	30.0	100 KHz	694.0	514.0	0.32
SCDS4D18T-390N	39.00	30.0	100 KHz	709.0	525.0	0.30
SCDS4D18T-470N	47.00	30.0	100 KHz	922.0	683.0	0.28
SCDS4D18T-560N	56.00	30.0	100 KHz	1080.0	800.0	0.26
SCDS4D18T-680N	68.00	30.0	100 KHz	1300.0	1000.0	0.24
SCDS4D18T-820N	82.00	30.0	100 KHz	1560.0	1200.0	0.22
SCDS4D18T-101N	100.00	30.0	100 KHz	1730.0	1330.0	0.20
SCDS4D18T-121N	120.00	30.0	100 KHz	2390.0	1840.0	0.18
SCDS4D18T-151N	150.00	30.0	100 KHz	2670.0	2050.0	0.15
SCDS4D18T-181N	180.00	30.0	100 KHz	4000.0	3050.0	0.14

Note:

I<sub>sat</sub>: DC current at which the inductance drops 35% from its value without current

I<sub>rms</sub>: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$


**ELECTRICAL CHARACTERISTICS SCDS4D28T**

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/IV)	DC RESISTANCE (m $\Omega$ )		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS4D28T-1R2N	1.20	30.0	100.0	23.6	17.5	2.56
SCDS4D28T-1R8N	1.80	30.0	100.0	27.5	20.4	2.20
SCDS4D28T-2R2N	2.20	30.0	100.0	31.3	23.2	2.04
SCDS4D28T-2R7N	2.70	30.0	100.0	43.3	32.1	1.60
SCDS4D28T-3R3N	3.30	30.0	100.0	49.2	36.4	1.57
SCDS4D28T-3R9N	3.90	30.0	100.0	64.8	48.0	1.44
SCDS4D28T-4R7N	4.70	30.0	100.0	72.0	53.3	1.32
SCDS4D28T-5R6N	5.60	30.0	100.0	100.9	74.7	1.17
SCDS4D28T-6R8N	6.80	30.0	100.0	108.9	80.7	1.12
SCDS4D28T-8R1N	8.20	30.0	100.0	117.5	87.0	1.04
SCDS4D28T-100N	10.00	30.0	100.0	128.3	95.0	1.00
SCDS4D28T-120N	12.00	30.0	100.0	131.6	97.5	0.84
SCDS4D28T-150N	15.00	30.0	100.0	149.0	110.4	0.76
SCDS4D28T-180N	18.00	30.0	100.0	166.0	123.0	0.72
SCDS4D28T-220N	22.00	30.0	100.0	235.0	174.5	0.70
SCDS4D28T-270N	27.00	30.0	100.0	261.0	193.3	0.58
SCDS4D28T-330N	33.00	30.0	100.0	331.3	254.8	0.56
SCDS4D28T-390N	39.00	30.0	100.0	383.7	384.2	0.50
SCDS4D28T-470N	47.00	30.0	100.0	587.0	435.0	0.48
SCDS4D28T-560N	56.00	30.0	100.0	624.5	462.6	0.41
SCDS4D28T-680N	68.00	30.0	100.0	699.0	517.8	0.35
SCDS4D28T-820N	82.00	30.0	100.0	914.8	677.6	0.32
SCDS4D28T-101N	100.00	30.0	100.0	1020.0	765.8	0.29
SCDS4D28T-121N	120.00	30.0	100.0	1270.0	976.8	0.27
SCDS4D28T-151N	150.00	30.0	100.0	1350.0	1080.0	0.24
SCDS4D28T-181N	180.00	30.0	100.0	1540.0	1230.0	0.22

Note:

Isat: DC current at which the inductance drops 35% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS SCDS5D18T

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/IV)	DC RESISTANCE (m $\Omega$ )		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS5D18T-4R1N	4.10	30.0	100.0	57.0	42.0	1.95
SCDS5D18T-5R4N	5.40	30.0	100.0	76.0	56.0	1.60
SCDS5D18T-6R2N	6.20	30.0	100.0	96.0	71.0	1.40
SCDS5D18T-8R9N	8.90	30.0	100.0	116.0	86.0	1.25
SCDS5D18T-100N	10.00	30.0	100.0	124.0	92.0	1.20
SCDS5D18T-120N	12.00	30.0	100.0	153.0	113.0	1.10
SCDS5D18T-150N	15.00	30.0	100.0	196.0	145.0	0.97
SCDS5D18T-180N	18.00	30.0	100.0	210.0	155.0	0.85
SCDS5D18T-220N	22.00	30.0	100.0	290.0	215.0	0.80
SCDS5D18T-270N	27.00	30.0	100.0	330.0	245.0	0.75
SCDS5D18T-330N	33.00	30.0	100.0	385.0	285.0	0.65
SCDS5D18T-390N	39.00	30.0	100.0	520.0	385.0	0.57
SCDS5D18T-470N	47.00	30.0	100.0	595.0	440.0	0.54
SCDS5D18T-560N	56.00	30.0	100.0	665.0	493.0	0.50
SCDS5D18T-680N	68.00	30.0	100.0	840.0	622.0	0.43
SCDS5D18T-820N	82.00	30.0	100.0	978.0	725.0	0.41
SCDS5D18T-101N	100.00	30.0	100.0	1200.0	895.0	0.36

Note:

Isat: DC current at which the inductance drops 35% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$


**ELECTRICAL CHARACTERISTICS** SCDS5D28T

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/1V)	DC RESISTANCE (m $\Omega$ )		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS5D28T-2R5N	2.50	30.0	100.0	18.0	13.0	2.60
SCDS5D28T-3R0N	3.00	30.0	100.0	24.0	18.0	2.40
SCDS5D28T-4R2N	4.20	30.0	100.0	31.0	23.0	2.20
SCDS5D28T-5R3N	5.30	30.0	100.0	38.0	28.0	1.90
SCDS5D28T-6R2N	6.20	30.0	100.0	45.0	33.0	1.80
SCDS5D28T-8R2N	8.20	30.0	100.0	53.0	39.0	1.60
SCDS5D28T-100N	10.00	30.0	100.0	65.0	48.0	1.30
SCDS5D28T-120N	12.00	30.0	100.0	76.0	56.0	1.20
SCDS5D28T-150N	15.0	30.0	100.0	103.0	76.0	1.10
SCDS5D28T-180N	18.00	30.0	100.0	110.0	82.0	1.00
SCDS5D28T-220N	22.00	30.0	100.0	122.0	90.0	0.90
SCDS5D28T-270N	27.00	30.0	100.0	175.0	130.0	0.85
SCDS5D28T-330N	33.00	30.0	100.0	189.0	140.0	0.75
SCDS5D28T-390N	39.00	30.0	100.0	212.0	157.0	0.70
SCDS5D28T-470N	47.00	30.0	100.0	250.0	185.0	0.62
SCDS5D28T-560N	56.00	30.0	100.0	305.0	226.0	0.58
SCDS5D28T-680N	68.00	30.0	100.0	355.0	263.0	0.52
SCDS5D28T-820N	82.00	30.0	100.0	463.0	343.0	0.46
SCDS5D28T-101N	100.00	30.0	100.0	520.0	385.0	0.42

**Note:**

Isat: DC current at which the inductance drops 35% from its value without current

 Irms: The actual current when temperature of coil becomes  $\Delta T = 40\text{ }^{\circ}\text{C}$



## ELECTRICAL CHARACTERISTICS SCDS6D28T

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/IV)	DC RESISTANCE (m $\Omega$ )		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS6D28T-3R0N	3.00	30.0	100.0	24.0	18.0	3.00
SCDS6D28T-3R9N	3.90	30.0	100.0	27.0	20.0	2.60
SCDS6D28T-5R0N	5.00	30.0	100.0	31.0	23.0	2.40
SCDS6D28T-6R0N	6.00	30.0	100.0	35.0	26.0	2.25
SCDS6D28T-7R3N	7.30	30.0	100.0	54.0	40.0	2.10
SCDS6D28T-8R6N	8.60	30.0	100.0	58.0	43.0	1.85
SCDS6D28T-100N	10.00	30.0	100.0	65.0	48.0	1.70
SCDS6D28T-120N	12.00	30.0	100.0	70.0	52.0	1.55
SCDS6D28T-150N	15.00	30.0	100.0	84.0	62.0	1.40
SCDS6D28T-180N	18.00	30.0	100.0	95.0	70.0	1.32
SCDS6D28T-220N	22.00	30.0	100.0	128.0	95.0	1.20
SCDS6D28T-270N	27.00	30.0	100.0	142.0	105.0	1.05
SCDS6D28T-330N	33.00	30.0	100.0	165.0	122.0	0.97
SCDS6D28T-390N	39.00	30.0	100.0	210.0	156.0	0.86
SCDS6D28T-470N	47.00	30.0	100.0	238.0	176.0	0.80
SCDS6D28T-560N	56.00	30.0	100.0	277.0	205.0	0.73
SCDS6D28T-680N	68.00	30.0	100.0	304.0	225.0	0.65
SCDS6D28T-820N	82.00	30.0	100.0	390.0	290.0	0.60
SCDS6D28T-101N	100.00	30.0	100.0	535.0	397.0	0.54

Note:

Isat: DC current at which the inductance drops 35% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$


**ELECTRICAL CHARACTERISTICS SCDS6D38T**

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/1V)	DC RESISTANCE (m $\Omega$ )		RATED CURRENT (A) Max.
				Typical	Max.	
SCDS6D38T-3R3N	3.30	30.0	100.0	20.0	15.0	3.50
SCDS6D38T-5R0N	5.00	30.0	100.0	24.0	18.0	2.90
SCDS6D38T-6R2N	6.20	30.0	100.0	27.0	20.0	2.50
SCDS6D38T-7R4N	7.40	30.0	100.0	31.0	23.0	2.30
SCDS6D38T-8R7N	8.70	30.0	100.0	34.0	25.0	2.20
SCDS6D38T-100N	10.00	30.0	100.0	38.0	28.0	2.00
SCDS6D38T-120N	12.00	30.0	100.0	53.0	39.0	1.70
SCDS6D38T-150N	15.00	30.0	100.0	57.0	42.0	1.60
SCDS6D38T-180N	18.00	30.0	100.0	92.0	68.0	1.50
SCDS6D38T-220N	22.00	30.0	100.0	96.0	71.0	1.30
SCDS6D38T-270N	27.00	30.0	100.0	109.0	81.0	1.20
SCDS6D38T-330N	33.00	30.0	100.0	124.0	92.0	1.10
SCDS6D38T-470N	47.00	30.0	100.0	155.0	115.0	0.95
SCDS6D38T-560N	56.00	30.0	100.0	202.0	150.0	0.85
SCDS6D38T-680N	68.00	30.0	100.0	234.0	173.0	0.75
SCDS6D38T-101N	100.00	30.0	100.0	358.0	265.0	0.65

Note:

Isat: DC current at which the inductance drops 35% from its value without current

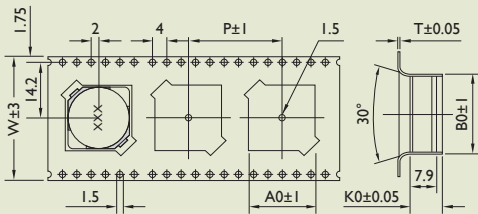
Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ \text{C}$





## TAPE DIMENSIONS

Unit: mm



TYPE	A0	B0	K0	P	W	T
SCDS3D16T	4.0	4	1.8	8	12	0.4
SCDS4D18T	5.0	5	2.0	8	12	0.4
SCDS4D28T	5.0	5	3.0	8	12	0.4
SCDS5D18T	6.0	6	2.0	8	12	0.4
SCDS5D28T	6.0	6	3.0	8	12	0.4
SCDS6D28T	7.0	7	3.0	12	16	0.4
SCDS6D38T	7.0	7	4.0	12	16	0.4

## PACKAGING QUANTITY

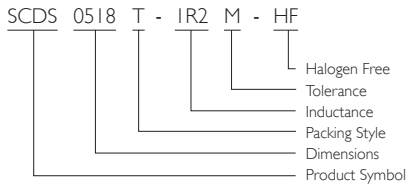
TYPE	BULK	QUANTITY/REEL	CASKET/REEL	CASKET	QUANTITY/BOX
SCDS3D16T	v	2000	3	5	30000
SCDS4D18T	v	2000	3	5	30000
SCDS4D28T	v	2000	3	5	30000
SCDS5D18T	v	2000	3	5	30000
SCDS5D28T	v	2000	3	5	30000
SCDS6D28T	v	1500	3	5	22500
SCDS6D38T	v	1000	3	5	15000

# SMD Power Inductors

# SCDS Series



## PRODUCT IDENTIFICATION



■ Tolerance: J = ±5%, K = ±10%, L = ±15%, M = ±20%,  
P = ±25%, N = ±30%, Y = min

## FEATURES

Halogen Free products

Shielded construction

High efficiency

## APPLICATIONS

Computer, DVD players and portable power devices

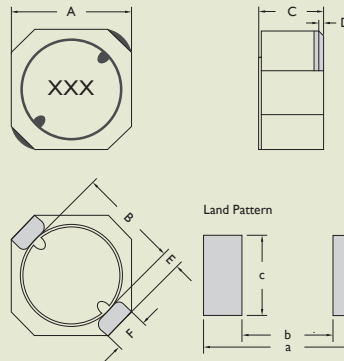
LCD panels, LCD TV, digital camera, DC-DC converters

Noise filtering and filter chokes

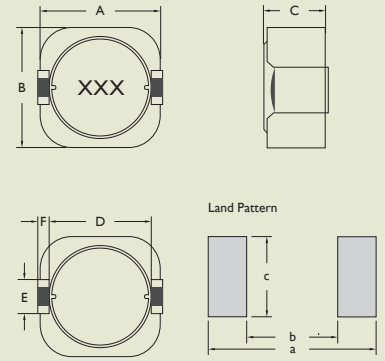
## SHAPES AND DIMENSIONS

Unit: mm

SCDS0518T



SCDS0620T



TYPE	A (Max.)	B	C (Max.)	D	E	F	a	b	c
SCDS0518T	5.2 <sup>+0</sup>	4.2	1.8 <sup>+0</sup>	0.15	0.6	1.4	6.0	4.0	2.0
SCDS0620T	6.3 <sup>+0</sup>	6.2 <sup>+0</sup>	2.0 <sup>+0</sup>	4.8	2.0	0.6	6.6	4.6	2.6



## ELECTRICAL CHARACTERISTICS SCDS0518T

PART NO.	INDUCTANCE ( $\mu\text{H}$ ) $\pm 20\%$	DC RESISTANCE ( $\text{m}\Omega$ )		INDUCTANCE DECREASE CURRENT (A)				I <sub>rms</sub> RISS CURRENT (A)	
		Typical	Max.	$\Delta L/L = 10\%$		$\Delta L/L = 30\%$		$\Delta T = 40\text{ }^\circ\text{C}$	
				Typical	Max.	Typical	Max.	Typical	Max.
SCDS0518T-1R2	1.20	38	46	1.60	2.15	2.00	2.78	1.97	2.32
SCDS0518T-1R8	1.80	45	54	1.40	1.94	1.80	2.48	1.77	2.08
SCDS0518T-2R3	2.30	53	63	1.20	1.66	1.50	2.13	1.67	1.96
SCDS0518T-3R6	3.60	68	82	1.00	1.35	1.20	1.73	1.42	1.68
SCDS0518T-4R3	4.30	77	92	0.92	1.23	1.10	1.55	1.34	1.58
SCDS0518T-5R1	5.10	86	105	0.82	1.10	1.00	1.43	1.18	1.39
SCDS0518T-6R8	6.80	105	130	0.72	0.97	0.94	1.26	1.14	1.34
SCDS0518T-100	10.00	150	180	0.60	0.81	0.80	1.07	0.95	1.12
SCDS0518T-150	15.00	225	270	0.48	0.65	0.64	0.86	0.77	0.90
SCDS0518T-180	18.00	265	320	0.44	0.59	0.56	0.76	0.70	0.83
SCDS0518T-220	22.00	375	450	0.38	0.52	0.49	0.66	0.62	0.73
SCDS0518T-330	33.00	530	640	0.31	0.42	0.41	0.55	0.49	0.58
SCDS0518T-470	47.00	780	930	0.25	0.34	0.33	0.45	0.39	0.46

## ELECTRICAL CHARACTERISTICS SCDS0620T

PART NO.	INDUCTANCE ( $\mu\text{H}$ ) $\pm 20\%$	DC RESISTANCE ( $\text{m}\Omega$ )		INDUCTANCE DECREASE CURRENT (A)				I <sub>rms</sub> RISS CURRENT (A)	
		Typical	Max.	$\Delta L/L = 10\%$		$\Delta L/L = 30\%$		$\Delta T = 40\text{ }^\circ\text{C}$	
				Typical	Max.	Typical	Max.	Typical	Max.
SCDS0620T-1R0	1.00	17	14	2.97	3.95	3.50	4.67	3.70	4.35
SCDS0620T-1R5	1.50	21	17	2.48	3.30	2.94	3.92	3.17	3.74
SCDS0620T-2R0	2.00	29	24	2.06	2.74	2.47	3.30	2.47	2.91
SCDS0620T-3R3	3.30	47	39	1.65	2.20	1.99	2.65	2.10	2.47
SCDS0620T-4R7	4.70	66	55	1.33	1.77	1.59	2.11	1.63	1.93
SCDS0620T-6R2	6.20	74	62	1.25	1.67	1.49	1.99	1.53	1.81
SCDS0620T-8R2	8.20	102	85	1.03	1.38	1.25	1.66	1.31	1.54
SCDS0620T-100	10.00	118	98	1.01	1.35	1.22	1.62	1.15	1.36
SCDS0620T-120	12.00	154	128	0.82	1.10	0.99	1.32	1.17	1.38
SCDS0620T-150	15.00	179	149	0.79	1.06	0.94	1.25	0.87	1.03
SCDS0620T-180	18.00	207	172	0.70	0.93	0.83	1.11	0.95	1.12
SCDS0620T-220	22.00	253	211	0.67	0.89	0.80	1.06	0.78	0.92
SCDS0620T-270	27.00	331	275	0.55	0.73	0.65	0.87	0.68	0.81
SCDS0620T-330	33.00	368	306	0.54	0.72	0.63	0.85	0.64	0.76
SCDS0620T-390	39.00	473	394	0.46	0.61	0.55	0.73	0.59	0.70
SCDS0620T-470	47.00	542	452	0.42	0.57	0.50	0.67	0.55	0.65

Note:

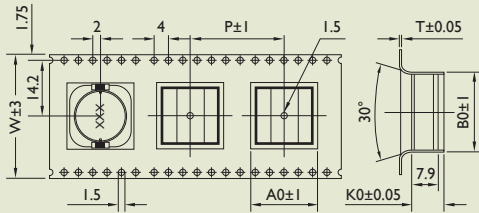
Isat: DC current at which the inductance drops 25% from its value without current

I<sub>rms</sub>: The actual current when temperature of coil becomes  $\Delta T = 40\text{ }^\circ\text{C}$



## TAPE DIMENSIONS

Unit: mm



TYPE	A0	B0	K0	P	W	T
SCDS0518T	5.2	5.2	1.8	8	12	0.4
SCDS0620T	6.3	6.2	2.0	8	12	0.4

## PACKAGING QUANTITY

TYPE	BULK	QUANTITY/REEL	CASKET/REEL	CASKET	QUANTITY/BOX
SCDS0518T	v	2000	3	5	30000
SCDS0620T	v	1500	3	5	22500

# SLF Series

## SMD Power Inductors

### FEATURES

Halogen Free products

Shielded construction

High current SMD Inductor

High efficiency

### APPLICATIONS

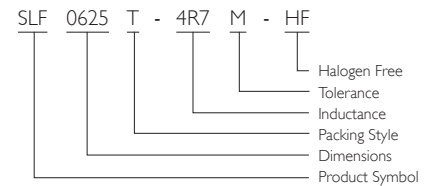
Handsets, personal computers, HDD, electronic devices

### SHAPES AND DIMENSIONS

TYPE	A	B	C	D	E	F	a	b	c
SLF0625T	6 ± 0.2	6 ± 0.2	2.5 ± 0.2	2 ± 0.1	4.00	0.9	4.0	2.2	1.5
SLF0628T	6 ± 0.2	6 ± 0.2	2.8 ± 0.2	2 ± 0.1	4.0 typ	0.9	4.0	2.2	1.5
SLF0728T	7 ± 0.2	7 ± 0.2	2.8 ± 0.2	2 ± 0.1	4.9 typ	0.9	4.9	2.2	1.5
SLF0730T	7 ± 0.2	7 ± 0.2	3 ± 0.22	2 ± 0.1	4.9	0.9	4.9	2.2	1.5
SLF0732T	7 ± 0.2	7 ± 0.2	3.0 ± 0.2	2 ± 0.1	4.9 typ	0.9 typ	4.9	2.2	1.5
SLF0745T	7 ± 0.2	7 ± 0.2	4.5 ± 0.3	2 ± 0.1	4.9 typ	0.9 typ	4.9	2.2	1.5
SLF1045T	10.1 ± 0.3	10.1 ± 0.3	4.5 ± 0.3	3 ± 0.1	6 typ	2 typ	5.6	3.2	2.5
SLF1055T	10.1 ± 0.3	10.1 ± 0.3	5.5 ± 0.3	3 ± 0.1	6 ± 0.3	2 ± 0.15	5.6	3.2	2.5
SLF1255T	12.5 ± 0.3	12.5 ± 0.3	5.5 ± 0.3	3 ± 0.1	8.5 typ	2 typ	8.6	3.2	2.5
SLF1265T	12.5 ± 0.3	12.5 ± 0.3	6.5 ± 0.35	3 ± 0.1	8.5 typ	2 typ	8.6	3.2	2.5
SLF1275T	12.5 ± 0.3	12.5 ± 0.3	7.5 ± 0.35	3 ± 0.1	8.5 typ	2 typ	8.6	3.2	2.5

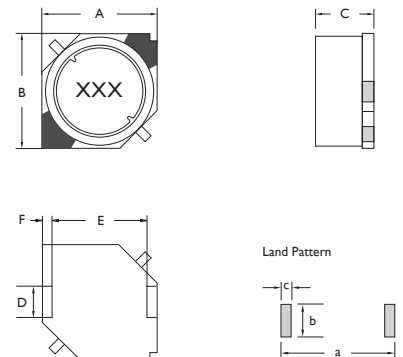


### PRODUCT IDENTIFICATION



■ Tolerance: J = ±5%, K = ±10%, L = ±15%, M = ±20%,  
P = ±25%, N = ±30%, Y = min

Unit: mm




**ELECTRICAL CHARACTERISTICS SLF0625T**

<b>PART NO.</b>	<b>INDUCTANCE (<math>\mu</math>H) <math>\pm</math>20%</b>	<b>TEST FREQUENCY (KHz/0.5V)</b>	<b>DC RESISTANCE (<math>\Omega</math>) <math>\pm</math>20%</b>	<b>Isat (A) Max.</b>	<b>Irms (A) Typical</b>
SLF0625T-4R7M	4.70	100	0.0306	1.50	1.80
SLF0625T-6R8M	6.80	100	0.0442	1.30	1.50
SLF0625T-100M	10.00	100	0.0573	1.00	1.30
SLF0625T-150M	15.00	100	0.0850	0.88	1.10
SLF0625T-220M	22.00	100	0.1220	0.73	0.94
SLF0625T-330M	33.00	100	0.1800	0.59	0.79
SLF0625T-470M	47.00	100	0.2400	0.48	0.67
SLF0625T-680M	68.00	100	0.3700	0.42	0.54
SLF0625T-101M	100.00	100	0.5000	0.33	0.47

**ELECTRICAL CHARACTERISTICS SLF0628T**

<b>PART NO.</b>	<b>INDUCTANCE (<math>\mu</math>H) <math>\pm</math>20%</b>	<b>TEST FREQUENCY (KHz/0.5V)</b>	<b>DC RESISTANCE (<math>\Omega</math>) <math>\pm</math>20%</b>	<b>Isat (A) Max.</b>	<b>Irms (A) Typical</b>
SLF0628T-4R7M	4.70	100	0.0284	1.60	2.50
SLF0628T-6R8M	6.80	100	0.0354	1.50	2.20
SLF0628T-100M	10.00	100	0.0532	1.30	1.80
SLF0628T-150M	15.00	100	0.0745	1.00	1.40
SLF0628T-220M	22.00	100	0.1040	0.77	1.30
SLF0628T-330M	33.00	100	0.1480	0.69	1.10
SLF0628T-470M	47.00	100	0.2100	0.59	0.92
SLF0628T-680M	68.00	100	0.2900	0.50	0.78
SLF0628T-101M	100.00	100	0.4300	0.42	0.64

Note:

Isat: DC current at which the inductance drops 30% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$



### ELECTRICAL CHARACTERISTICS SLF0728T

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/0.5V)	DC RESISTANCE ( $\Omega$ ) $\pm$ 20%	RATED CURRENT (A) Max.
SLF0728T-3R3M	3.30	20.0	100	0.0370	1.60
SLF0728T-4R7M	4.70	20.0	100	0.0450	1.50
SLF0728T-6R8M	6.80	20.0	100	0.0590	1.30
SLF0728T-100M	10.00	20.0	100	0.0830	1.10
SLF0728T-150M	15.00	20.0	100	0.1300	0.88
SLF0728T-220M	22.00	20.0	100	0.1800	0.75
SLF0728T-330M	33.00	20.0	100	0.2400	0.65
SLF0728T-470M	47.00	20.0	100	0.3400	0.54

### ELECTRICAL CHARACTERISTICS SLF0730T

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/0.5V)	DC RESISTANCE ( $\Omega$ ) $\pm$ 20%	RATED CURRENT (A) Max.
SLF0730T-3R3M	3.30	20.0	100	0.023	1.80
SLF0730T-4R7M	4.70	20.0	100	0.036	1.60
SLF0730T-6R8M	6.80	20.0	100	0.041	1.50
SLF0730T-100M	10.00	20.0	100	0.053	1.30
SLF0730T-150M	15.00	20.0	100	0.084	1.00
SLF0730T-220M	22.00	20.0	100	0.110	0.86
SLF0730T-330M	33.00	20.0	100	0.160	0.65
SLF0730T-470M	47.00	20.0	100	0.240	0.57
SLF0730T-680M	68.00	20.0	100	0.310	0.49
SLF0730T-101M	100.00	20.0	100	0.450	0.35

Note:

Isat: DC current at which the inductance drops 30% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$


**ELECTRICAL CHARACTERISTICS SLF0732T**

PART NO.	INDUCTANCE ( $\mu$ H)	TOLERANCE ( $\pm$ %)	TEST FREQUENCY (KHz/0.5V)	DC RESISTANCE ( $\Omega$ ) $\pm$ 20%	RATED CURRENT (A) Max.
SLF0732T-3R3M	3.30	20.0	100	0.023	1.90
SLF0732T-4R7M	4.70	20.0	100	0.036	1.70
SLF0732T-6R8M	6.80	20.0	100	0.041	1.60
SLF0732T-100M	10.00	20.0	100	0.053	1.40
SLF0732T-150M	15.00	20.0	100	0.075	1.10
SLF0732T-220M	22.00	20.0	100	0.110	0.96
SLF0732T-330M	33.00	20.0	100	0.160	0.75
SLF0732T-470M	47.00	20.0	100	0.240	0.67
SLF0732T-680M	68.00	20.0	100	0.310	0.59
SLF0732T-101M	100.00	20.0	100	0.450	0.45
SLF0732T-151M	150.00	20.0	100	0.650	0.37
SLF0732T-221M	220.00	20.0	100	1.050	0.29
SLF0732T-331M	330.00	20.0	100	1.670	0.22
SLF0732T-471M	470.00	20.0	100	2.050	0.20
SLF0732T-681M	680.00	20.0	100	3.150	0.16
SLF0732T-102M	1000.00	20.0	100	4.780	0.13

**ELECTRICAL CHARACTERISTICS SLF0745T**

PART NO.	INDUCTANCE ( $\mu$ H) $\pm$ 20%	TEST FREQUENCY (KHz/0.5V)	DC RESISTANCE ( $\Omega$ ) $\pm$ 20%	I <sub>sat</sub> (A) Max.	I <sub>rms</sub> (A) Typical
SLF0745T-3R3M	3.30	100	0.020	2.50	2.30
SLF0745T-4R7M	4.70	100	0.030	2.00	2.10
SLF0745T-6R8M	6.80	100	0.039	1.70	1.74
SLF0745T-100M	10.00	100	0.036	1.30	1.78
SLF0745T-150M	15.00	100	0.052	1.10	1.53
SLF0745T-220M	22.00	100	0.061	0.90	1.34
SLF0745T-330M	33.00	100	0.096	0.82	1.09
SLF0745T-470M	47.00	100	0.125	0.75	0.92
SLF0745T-680M	68.00	100	0.175	0.60	0.77
SLF0745T-101M	100.00	100	0.250	0.50	0.65
SLF0745T-151M	150.00	100	0.340	0.40	0.55
SLF0745T-221M	220.00	100	0.520	0.33	0.45
SLF0745T-331M	330.00	100	0.740	0.25	0.37
SLF0745T-471M	470.00	100	1.050	0.22	0.31
SLF0745T-681M	680.00	100	1.480	0.20	0.27
SLF0745T-102M	1000.00	100	2.280	0.14	0.25

**Note:**

 I<sub>sat</sub>: DC current at which the inductance drops 30% from its value without current

 I<sub>rms</sub>: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$





## ELECTRICAL CHARACTERISTICS SLFI045T

PART NO.	INDUCTANCE ( $\mu$ H)	TEST FREQUENCY (KHz/0.5V)	DC RESISTANCE ( $\Omega$ ) $\pm 20\%$	Isat (A) Max.	Irms (A) Typical
SLFI045T-3R3N	3.30 $\pm 30\%$		0.0161	4.90	3.70
SLFI045T-5R6M	5.60 $\pm 20\%$		0.0220	3.80	3.20
SLFI045T-100M	10.00 $\pm 20\%$		0.0364	3.00	2.50
SLFI045T-150M	15.00 $\pm 20\%$		0.0472	2.40	2.20
SLFI045T-220M	22.00 $\pm 20\%$		0.0591	2.10	1.90
SLFI045T-330M	33.00 $\pm 20\%$		0.0815	1.60	1.70
SLFI045T-470M	47.00 $\pm 20\%$		0.1000	1.40	1.50
SLFI045T-680M	68.00 $\pm 20\%$		0.1400	1.20	1.30
SLFI045T-101M	100.00 $\pm 20\%$		0.2000	1.00	1.10
SLFI045T-151M	150.00 $\pm 20\%$		0.3500	0.79	0.81
SLFI045T-221M	220.00 $\pm 20\%$		0.4700	0.65	0.70
SLFI045T-331M	330.00 $\pm 20\%$		0.6800	0.54	0.58
SLFI045T-471M	470.00 $\pm 20\%$		1.0300	0.47	0.47
SLFI045T-681M	680.00 $\pm 20\%$		1.6000	0.38	0.38
SLFI045T-102M	1000.00 $\pm 20\%$		2.8000	0.32	0.29
SLFI045T-152M	1500.00 $\pm 20\%$		3.4000	0.22	0.26

## ELECTRICAL CHARACTERISTICS SLFI055T

PART NO.	INDUCTANCE ( $\mu$ H) $\pm 20\%$	TEST FREQUENCY (KHz/1V)	DC RESISTANCE (m $\Omega$ ) $\pm 20\%$	Isat (A) Max.	Irms (A) Typical
SLFI055T-4R7M	4.70		11.50	5.20	5.20
SLFI055T-6R8M	6.80		14.60	4.20	4.20
SLFI055T-100M	10.00		17.40	3.50	4.00
SLFI055T-220M	22.00		35.70	2.50	3.00
SLFI055T-330M	33.00		51.50	2.10	2.30

Note:

Isat: DC current at which the inductance drops 30% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$


**ELECTRICAL CHARACTERISTICS SLFI255T**

PART NO.	INDUCTANCE ( $\mu$ H)	TEST FREQUENCY (KHz/0.5V)	DC RESISTANCE ( $\Omega$ ) $\pm 20\%$	Isat (A) Max.	Irms (A) Typical
SLFI255T-6R0N	6.00 $\pm 30\%$	I	0.0164	3.60	4.90
SLFI255T-100M	10.00 $\pm 20\%$	I	0.0215	3.40	4.30
SLFI255T-150M	15.00 $\pm 20\%$	I	0.0259	2.80	3.90
SLFI255T-220M	22.00 $\pm 20\%$	I	0.0338	2.30	3.40
SLFI255T-330M	33.00 $\pm 20\%$	I	0.0415	1.90	3.10
SLFI255T-470M	47.00 $\pm 20\%$	I	0.0618	1.60	2.50
SLFI255T-680M	68.00 $\pm 20\%$	I	0.0832	1.30	2.20
SLFI255T-101M	100.00 $\pm 20\%$	I	0.1170	1.10	1.80
SLFI255T-151M	150.00 $\pm 20\%$	I	0.1900	0.88	1.40
SLFI255T-221M	220.00 $\pm 20\%$	I	0.2700	0.72	1.20
SLFI255T-331M	330.00 $\pm 20\%$	I	0.4100	0.59	1.00
SLFI255T-471M	470.00 $\pm 20\%$	I	0.5200	0.49	0.88
SLFI255T-681M	680.00 $\pm 20\%$	I	0.7600	0.43	0.73
SLFI255T-102M	1000.00 $\pm 20\%$	I	1.1200	0.34	0.60
SLFI255T-152M	1500.00 $\pm 20\%$	I	1.7300	0.29	0.48

**ELECTRICAL CHARACTERISTICS SLFI265T**

PART NO.	INDUCTANCE ( $\mu$ H)	TEST FREQUENCY (KHz/0.5V)	DC RESISTANCE ( $\Omega$ ) $\pm 20\%$	Isat (A) Max.	Irms (A) Typical
SLFI265T-4R2N	4.20 $\pm 30\%$	I	0.0150	7.30	5.50
SLFI265T-7R0N	7.00 $\pm 30\%$	I	0.0177	5.70	5.00
SLFI265T-100M	10.00 $\pm 20\%$	I	0.0202	5.00	4.80
SLFI265T-150M	15.00 $\pm 20\%$	I	0.0237	4.20	4.40
SLFI265T-220M	22.00 $\pm 20\%$	I	0.0316	3.50	3.80
SLFI265T-330M	33.00 $\pm 20\%$	I	0.0406	2.80	3.40
SLFI265T-470M	47.00 $\pm 20\%$	I	0.0578	2.40	2.80
SLFI265T-680M	68.00 $\pm 20\%$	I	0.0787	2.00	2.40
SLFI265T-221M	220.00 $\pm 20\%$	I	0.2730	1.00	1.20

Note:

Isat: DC current at which the inductance drops 30% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40\text{ }^{\circ}\text{C}$



## ELECTRICAL CHARACTERISTICS SLFI275T

PART NO.	INDUCTANCE ( $\mu$ H) $\pm 20\%$	TEST FREQUENCY (KHz/0.5V)	DC RESISTANCE ( $\Omega$ ) $\pm 20\%$	Isat (A) Max.	Irms (A) Typical
SLFI275T-1R2M	1.20	1	0.0069	13.00	8.20
SLFI275T-2R7M	2.70	1	0.0094	10.00	7.00
SLFI275T-3R9M	3.90	1	0.0104	9.00	6.70
SLFI275T-5R6M	5.60	1	0.0116	7.80	6.30
SLFI275T-6R8M	6.80	1	0.0131	7.20	5.90
SLFI275T-100M	10.00	1	0.0156	5.50	5.40
SLFI275T-150M	15.00	1	0.0184	4.70	5.00
SLFI275T-220M	22.00	1	0.0263	4.00	4.00
SLFI275T-330M	33.00	1	0.0395	3.20	3.40
SLFI275T-470M	47.00	1	0.0528	2.70	3.00
SLFI275T-680M	68.00	1	0.0778	2.00	2.40
SLFI275T-101M	100.00	1	0.1250	1.90	1.90
SLFI275T-151M	150.00	1	0.1750	1.50	1.60
SLFI275T-221M	220.00	1	0.2580	1.30	1.30

Note:

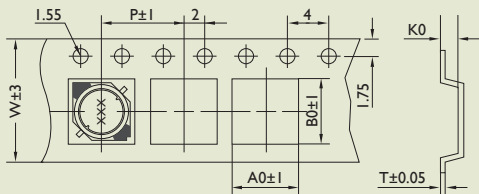
Isat: DC current at which the inductance drops 30% from its value without current

Irms: The actual current when temperature of coil becomes  $\Delta T = 40^\circ\text{C}$



## TAPE DIMENSIONS

Unit: mm



TYPE	A0	B0	K0	P	W	T
SLF0625T	6.2	6.2	2.7	12	16	0.4
SLF0628T	6.2	6.2	3.0	12	16	0.4
SLF0728T	7.2	7.2	3.0	12	16	0.4
SLF0730T	7.2	7.2	3.2	12	16	0.4
SLF0732T	7.2	7.2	3.2	12	16	0.4
SLF0745T	7.2	7.2	4.8	12	16	0.4
SLF1045T	10.4	10.4	4.8	16	24	0.4
SLF1055T	10.4	10.4	5.8	16	24	0.4
SLF1255T	12.8	12.8	5.8	16	24	0.4
SLF1265T	12.8	12.8	6.8	16	24	0.4
SLF1275T	12.8	12.8	7.8	16	24	0.4

## PACKAGING QUANTITY

TYPE	BULK	QUANTITY/REEL	CASKET/REEL	CASKET	QUANTITY/BOX
SLF0625T	v	1000	3.0	5.0	15000
SLF0628T	v	1000	3.0	5.0	15000
SLF0728T	v	1000	3.0	5.0	15000
SLF0730T	v	1000	3.0	5.0	15000
SLF0732T	v	1000	3.0	5.0	15000
SLF0745T	v	1000	3.0	5.0	15000
SLF1045T	v	500	3.0	5.0	7500
SLF1055T	v	500	3.0	5.0	7500
SLF1255T	v	500	3.0	5.0	7500
SLF1265T	v	500	3.0	5.0	7500
SLF1275T	v	500	3.0	5.0	7500