INDUCTORS

Radial Lead

TSL SERIES (Non-Magnetic Shield)

As switching power supplies become increasingly popular for use in electronic equipment, a large choice of .08 to 6 ampere choke coils are in a greater demand as well as a variety of fixed inductors for signal circuits. TDK uses a new ferrite core of it's own to produce a far smaller, lightweight choke coil.

Features

- Greatly reduced in size, weight and particularly in height (up to 40%).
- Nonflammable.

Applications

Used as power supply smoothing choke coils (dropper and switching types) for CRT displays, VCRs, office equipment, EMI filters and telephones

Characteristics

Ambient temperature
+60°C maximum

Temperature rise
+25°C maximum

Operating temperature range
-20°C ~ +85°C
(including self-temperature rise)

Storage temperature range
-40°C ~ +85°C

Rated current
Value obtained based on inductance change rate (10% drop in initial value) or temperature rise whichever is smaller.

Product Identification

TSL	07	09	RA	-	100	K	1R9
(1)	(2)	(3)	(4)		(5)	(6)	(7)

(1) Type

(2) Outside diameter

(3) Height

(4) RA: Taping
S: Bulk

(5) Inductance value
Example 1R0: 1μH, 100: 10μH

(6) Inductance tolerance
Example K: ±10%, M: ±20%

(7) Rated DC current
Example 1R9: 1.9A

Inductance range (μH)

Size	Range
0709	1.0 to 1,000
0809	3.3 to 1,500
1112	1.0 to 15,000

Packaging quantities

Size	Quantity
0709	1,000 pcs./box
0809	500 pcs./box
1112	500 pcs./box

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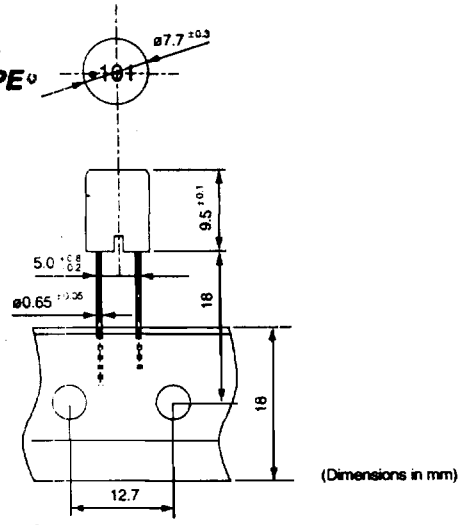
TSL SERIES (Non-Magnetic Shield)

TSL0709RA TYPE



(Dimensions in mm)

Electrical Characteristics

Part Number	L (μH)	Q Min.	L,Q Test Freq. (Hz)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (A) Max.* IDC1 (A)	IDC2 (A)
TSL0709RA-1R0M5R0	1.0±20%	10	1k/7.96M	70.0	0.006	6.6	5.0
TSL0709RA-1R5M4R3	1.5±20%	10	1k/7.96M	56.0	0.008	5.4	4.3
TSL0709RA-2R2M3R7	2.2±20%	10	1k/7.96M	45.0	0.010	4.0	3.7
TSL0709RA-3R3M2R9	3.3±20%	10	1k/7.96M	36.0	0.018	3.6	2.9
TSL0709RA-4R7M2R6	4.7±20%	10	1k/7.96M	29.0	0.022	3.1	2.6
TSL0709RA-6R8M2R3	6.8±20%	10	1k/7.96M	24.0	0.028	2.5	2.3
TSL0709RA-100K1R9	10±10%	20	1k/2.52M	19.0	0.043	2.1	1.9
TSL0709RA-150K1R6	15±10%	20	1k/2.52M	15.0	0.056	1.7	1.6
TSL0709RA-220K1R3	22±10%	20	1k/2.52M	12.0	0.086	1.4	1.3
TSL0709RA-330K1R0	33±10%	20	1k/2.52M	9.4	0.14	1.1	1.0
TSL0709RA-470KR94	47±10%	20	1k/2.52M	7.6	0.17	0.96	0.94
TSL0709RA-680KR73	68±10%	20	1k/2.52M	6.2	0.28	0.79	0.73
TSL0709RA-101KR66	100±10%	20	1k/796k	5.0	0.33	0.66	0.67
TSL0709RA-151KR52	150±10%	20	1k/796k	4.0	0.56	0.53	0.52
TSL0709RA-221KR44	220±10%	20	1k/796k	3.2	0.72	0.44	0.46
TSL0709RA-331KR36	330±10%	20	1k/796k	2.5	1.10	0.36	0.37
TSL0709RA-471KR30	470±10%	20	1k/796k	2.0	1.70	0.30	0.30
TSL0709RA-681KR25	680±10%	20	1k/796k	1.7	2.30	0.25	0.26
TSL0709RA-102KR19	1000±10%	70	1k/252k	1.3	4.30	0.20	0.19
TSL0709RA-152KR16	1500±10%	50	1k/252k	1.3	5.0	0.17	0.16

**IDC1: Based on inductance change (ΔL: -10%)*
IDC2: Based on self-temperature rise (Δt: 25°C)
IDC: The less value which is IDC1 or IDC2

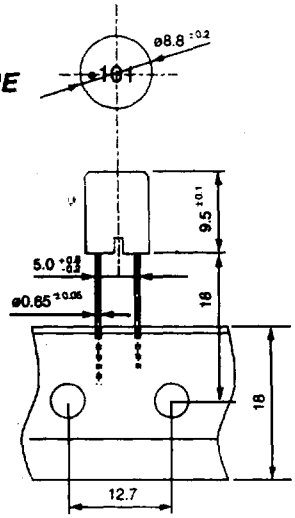
Note: Test instruments
L: LCR meter 4261A YHP or equivalent
Q: Q meter 4340A YHP or equivalent
SRF: Megacycle meter 159 measurements or equivalent
RDC: Milliohm meter VP-2941A Matsushita or equivalent

INDUCTORS

Radial Lead

TSL SERIES (Non-Magnetic Shield)

TSL0809RA TYPE



Electrical Characteristics

Part Number	L (μH)	Q Min.	L,Q Test Freq. (Hz)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (A) Max.* IDC1 (A)	IDC2 (A)
TSL0809RA-2R2M4R0	2.2±20%	10	1k/7.96M	60.0	0.011	5.5	4.0
TSL0809RA-3R3M3R4	3.3±20%	10	1k/7.96M	38.0	0.013	3.8	3.4
TSL0809RA-4R7M3R0	4.7±20%	10	1k/7.96M	30.0	0.017	3.7	3.0
TSL0809RA-6R8M2R6	6.8±20%	10	1k/7.96M	24.0	0.023	2.8	2.6
TSL0809RA-100K2R2	10±10%	20	1k/2.52M	19.0	0.031	2.5	2.2
TSL0809RA-150K1R9	15±10%	20	1k/2.52M	15.0	0.042	2.0	1.9
TSL0809RA-220K1R5	22±10%	20	1k/2.52M	12.0	0.070	1.6	1.5
TSL0809RA-330K1R2	33±10%	20	1k/2.52M	10.0	0.092	1.3	1.2
TSL0809RA-470K1R0	47±10%	20	1k/2.52M	8.2	0.130	1.1	1.0
TSL0809RA-680KR91	68±10%	20	1k/2.52M	6.6	0.160	0.91	0.97
TSL0809RA-101KR75	100±10%	15	1k/796k	5.4	0.230	0.75	0.81
TSL0809RA-151KR61	150±10%	15	1k/796k	4.3	0.400	0.61	0.61
TSL0809RA-221KR50	220±10%	15	1k/796k	3.5	0.530	0.50	0.53
TSL0809RA-331KR41	330±10%	15	1k/796k	2.8	0.780	0.41	0.44
TSL0809RA-471KR34	470±10%	10	1k/796k	2.3	1.0	0.34	0.39
TSL0809RA-681KR28	680±10%	10	1k/796k	1.9	1.5	0.28	0.32
TSL0809RA-102KR23	1000±10%	20	1k/252k	1.5	2.2	0.23	0.26
TSL0809RA-152KR18	1500±10%	30	1k/252k	1.2	3.5	0.18	0.21

**IDC1: Based on inductance change (ΔL: -10%)*
IDC2: Based on self-temperature rise (Δt: 25°C)
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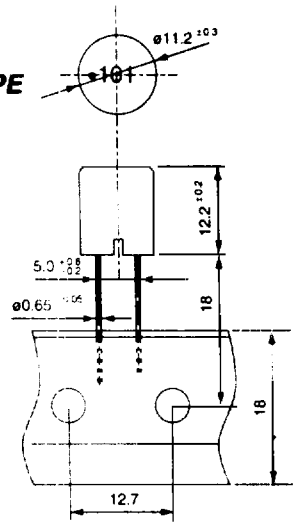
Q: Q meter 4340A YHP or equivalent
SRF: Megacycle meter 159 measurements or equivalent
RDC: Milliohm meter VP-2941A Matsushita or equivalent

INDUCTORS

Radial Lead

TSL SERIES (Non-Magnetic Shield)

TSL1112RA TYPE



Electrical Characteristics

	L (μH)	Q Min.	LQ Test Freq. (Hz)	RDC (Ω) Max.	IDC (A) Max.* IDC1 (A)	IDC2 (A)	Marking
TSL1112RA-3R3M5R9	3.3±20%	10	1k/7.96M	0.010	8.80	5.90	●3R3
TSL1112RA-4R7M4R8	4.7±20%	10	1k/7.96M	0.015	7.20	4.80	●4R7
TSL1112RA-6R8M4R6	6.8±20%	10	1k/7.96M	0.016	6.10	4.60	●6R8
TSL1112RA-100M3R7	10±20%	20	1k/2.52M	0.025	5.00	3.70	●100
TSL1112RA-150M3R4	15±20%	20	1k/2.52M	0.029	4.20	3.40	●150
TSL1112RA-220K2R9	22±10%	20	1k/2.52M	0.040	3.40	2.90	●220
TSL1112RA-330K2R3	33±10%	30	1k/2.52M	0.062	2.80	2.30	●330
TSL1112RA-470K2R1	47±10%	30	1k/2.52M	0.075	2.30	2.10	●470
TSL1112RA-680K1R6	68±10%	20	1k/2.52M	0.130	1.90	1.60	●680
TSL1112RA-101K1R4	100±10%	20	1k/796k	0.160	1.60	1.40	●101
TSL1112RA-151K1R1	150±10%	20	1k/796k	0.260	1.30	1.10	●151
TSL1112RA-221K1R0	220±10%	20	1k/796k	0.330	1.10	1.00	●221
TSL1112RA-331KR82	330±10%	20	1k/796k	0.520	0.88	0.82	●331
TSL1112RA-471KR72	470±10%	10	1k/796k	0.660	0.75	0.72	●471
TSL1112RA-681KR56	680±10%	10	1k/796k	1.10	0.61	0.56	●681
TSL1112RA-102JR50	1,000±5%	20	1k/252k	1.40	0.51	0.50	●102
TSL1112RA-152JR38	1,500±5%	30	1k/252k	2.40	0.43	0.38	●152
TSL1112RA-222JR33	2,200±5%	20	1k/252k	3.20	0.35	0.33	●222
TSL1112RA-332JR26	3,300±5%	30	1k/252k	4.90	0.28	0.26	●332
TSL1112RA-472JR21	4,700±5%	30	1k/252k	7.60	0.24	0.21	●472
TSL1112RA-682JR18	6,800±5%	30	1k/252k	9.80	0.20	0.18	●682
TSL1112RA-103JR14	10,000±5%	30	1k/79.6k	18.0	0.17	0.14	●103
TSL1112RA-153JR12	15,000±5%	50	1k/79.6k	24.0	0.13	0.12	●153

*IDC1. Based on inductance change (ΔL: -10%)
IDC2. Based on self-temperature rise (Δt: 25°C)
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