

# Inductors

## For Power Line

### Radial

## TSL Series TSL0709 Type

### FEATURES

- The TSL series feature low DC resistance and high current handling capacities, making them ideal for power supply line applications.
- These parts are manufactured to a high degree of dimensional accuracy using non-flammable material (UL94V-0).
- Available in tape packaging to support automated mounting machines.
- This product conforms to the standards that are slated to be introduced under the RoHS Directive.

### APPLICATIONS

Televisions, VCRs, personal computers, and other electronic equipments.

### SPECIFICATIONS

Operating temperature range	-20 to +85°C [Including self-temperature rise]
Storage temperature range	-40 to +85°C[Unit of products]
Terminal tensile strength	9.8N min.
Flow soldering condition	260°C /10 seconds

### PRODUCT IDENTIFICATION

TSL	0709	RA-	1R0	M	5R0	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	

(1)Series name

(2)Dimensions

0709	ø7.7×9.5mm (lead pitch 5mm)
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(3)Packaging style

RA	Taping(Ammo-pack)
S	Bulk

(4)Inductance value

1R0	1μH
100	10μH

(5)Inductance tolerance

K	±10%
M	±20%

(6)Rated current

5R0	5A
R66	0.66A

(7)Lead-free compatible product

PF	Lead-free compatible product
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### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping (Ammo-pack)	1000 pieces/box
Bulk	500 pieces/10tray

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

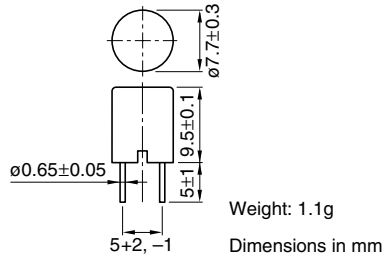
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### SHAPES AND DIMENSIONS



### ELECTRICAL CHARACTERISTICS

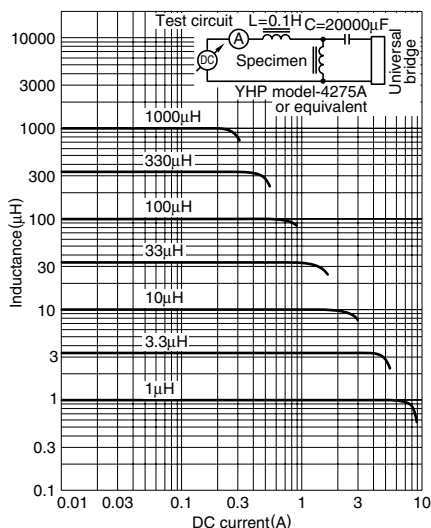
Inductance ( $\mu\text{H}$ )	Inductance tolerance	Q min.	Test frequency L/Q (Hz)	Self-resonant frequency (MHz)min.	DC resistance ( $\Omega$ )max.	Rated current(A) <sup>*1</sup> max.		Part No.
						Based on inductance change	Based on temperature rise	
1	$\pm 20\%$	10	1k/7.96M	70	0.006	6.6	5	TSL0709□ <sup>*2</sup> -1R0M5R0-PF
1.5	$\pm 20\%$	10	1k/7.96M	56	0.008	5.4	4.3	TSL0709□-1R5M4R3-PF
2.2	$\pm 20\%$	10	1k/7.96M	45	0.011	4	3.7	TSL0709□-2R2M3R7-PF
3.3	$\pm 20\%$	10	1k/7.96M	36	0.018	3.6	2.9	TSL0709□-3R3M2R9-PF
4.7	$\pm 20\%$	10	1k/7.96M	29	0.022	3.1	2.6	TSL0709□-4R7M2R6-PF
6.8	$\pm 20\%$	10	1k/7.96M	24	0.028	2.5	2.3	TSL0709□-6R8M2R3-PF
10	$\pm 10\%$	20	1k/2.52M	19	0.043	2.1	1.9	TSL0709□-100K1R9-PF
15	$\pm 10\%$	20	1k/2.52M	15	0.056	1.7	1.6	TSL0709□-150K1R6-PF
22	$\pm 10\%$	20	1k/2.52M	12	0.086	1.4	1.3	TSL0709□-220K1R3-PF
33	$\pm 10\%$	20	1k/2.52M	9.4	0.14	1.1	1	TSL0709□-330K1R0-PF
47	$\pm 10\%$	20	1k/2.52M	7.6	0.17	0.96	0.94	TSL0709□-470KR94-PF
68	$\pm 10\%$	20	1k/2.52M	6.2	0.28	0.79	0.73	TSL0709□-680KR73-PF
100	$\pm 10\%$	20	1k/796k	5	0.33	0.66	0.67	TSL0709□-101KR66-PF
150	$\pm 10\%$	20	1k/796k	4	0.56	0.53	0.52	TSL0709□-151KR52-PF
220	$\pm 10\%$	20	1k/796k	3.2	0.72	0.44	0.46	TSL0709□-221KR44-PF
330	$\pm 10\%$	20	1k/796k	2.5	1.1	0.36	0.37	TSL0709□-331KR36-PF
470	$\pm 10\%$	20	1k/796k	2	1.7	0.3	0.3	TSL0709□-471KR30-PF
680	$\pm 10\%$	20	1k/796k	1.7	2.3	0.25	0.26	TSL0709□-681KR25-PF
1000	$\pm 10\%$	70	1k/252k	1.3	4.3	0.2	0.19	TSL0709□-102KR19-PF
1500	$\pm 10\%$	50	1k/252k	1.3	5	0.17	0.16	TSL0709□-152KR16-PF

\*1 Rated current: Value obtained when current flows and the temperature has risen to 25°C or when DC current flows and the initial value of inductance has fallen by 20%, whichever is smaller.

\*2 □: Please specify packaging style, S(Bulk) or RA(Taping).

### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



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