

# Inductors

## For Power Line Radial

## TSL Series TSL0808 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<br>[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 | 0808 | RA- | 3R3 | M   | 3R8 | -   | PF |
| (1) | (2)  | (3) | (4) | (5) | (6) | (7) |    |

(1)Series name

(2)Dimensions

|      |                             |
|------|-----------------------------|
| 0808 | ø8.5×8.3mm (lead pitch 5mm) |
|------|-----------------------------|

(3)Packaging style

|    |                   |
|----|-------------------|
| RA | Taping(Ammo-pack) |
| S  | Bulk              |

(4)Inductance value

|     |       |
|-----|-------|
| 3R3 | 3.3μH |
| 100 | 10μH  |

(5)Inductance tolerance

|   |      |
|---|------|
| K | ±10% |
| M | ±20% |

(6)Rated current

|     |       |
|-----|-------|
| 3R8 | 3.8A  |
| R67 | 0.67A |

(7)Lead-free compatible product

|    |                              |
|----|------------------------------|
| PF | Lead-free compatible product |
|----|------------------------------|

### PACKAGING STYLE AND QUANTITIES

|                       |                   |
|-----------------------|-------------------|
| Packaging style       | Quantity          |
| Taping<br>(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.

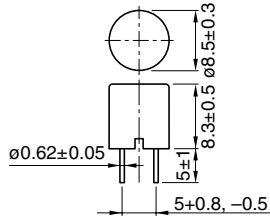
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### Radial

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### SHAPES AND DIMENSIONS



Weight: 1.5g

Dimensions in mm



### ELECTRICAL CHARACTERISTICS

| Inductance (μH) | Inductance tolerance | Q min. | Test frequency L/Q (Hz) | Self-resonant frequency (MHz)min. | DC resistance (Ω)max. | Rated current (A)*1max.    |                           | Part No.              |
|-----------------|----------------------|--------|-------------------------|-----------------------------------|-----------------------|----------------------------|---------------------------|-----------------------|
|                 |                      |        |                         |                                   |                       | Based on inductance change | Based on temperature rise |                       |
| 2.2             | ±20%                 | 10     | 1k/7.96M                | 45                                | 0.015                 | 5.6                        | 3.9                       | TSL0808□*2-2R2M3R9-PF |
| 3.3             | ±20%                 | 10     | 1k/7.96M                | 34                                | 0.017                 | 4.5                        | 3.8                       | TSL0808□-3R3M3R8-PF   |
| 4.7             | ±20%                 | 10     | 1k/7.96M                | 27                                | 0.021                 | 3.8                        | 3.5                       | TSL0808□-4R7M3R5-PF   |
| 6.8             | ±20%                 | 10     | 1k/7.96M                | 22                                | 0.025                 | 3.2                        | 3.1                       | TSL0808□-6R8M3R1-PF   |
| 10              | ±10%                 | 20     | 1k/2.52M                | 17                                | 0.031                 | 2.6                        | 2.7                       | TSL0808□-100K2R6-PF   |
| 15              | ±10%                 | 20     | 1k/2.52M                | 13                                | 0.042                 | 2.1                        | 2.4                       | TSL0808□-150K2R1-PF   |
| 22              | ±10%                 | 20     | 1k/2.52M                | 10                                | 0.07                  | 1.7                        | 1.9                       | TSL0808□-220K1R7-PF   |
| 33              | ±10%                 | 20     | 1k/2.52M                | 8                                 | 0.092                 | 1.4                        | 1.5                       | TSL0808□-330K1R4-PF   |
| 47              | ±10%                 | 20     | 1k/2.52M                | 6.5                               | 0.13                  | 1.2                        | 1.3                       | TSL0808□-470K1R2-PF   |
| 68              | ±10%                 | 20     | 1k/2.52M                | 5.4                               | 0.16                  | 1                          | 1.1                       | TSL0808□-680K1R0-PF   |
| 100             | ±10%                 | 20     | 1k/796k                 | 4.4                               | 0.25                  | 0.8                        | 0.94                      | TSL0808□-101KR80-PF   |
| 150             | ±10%                 | 20     | 1k/796k                 | 3.6                               | 0.4                   | 0.67                       | 0.73                      | TSL0808□-151KR67-PF   |
| 220             | ±10%                 | 15     | 1k/796k                 | 2.9                               | 0.53                  | 0.54                       | 0.64                      | TSL0808□-221KR54-PF   |
| 330             | ±10%                 | 15     | 1k/796k                 | 2.4                               | 0.78                  | 0.45                       | 0.52                      | TSL0808□-331KR45-PF   |
| 470             | ±10%                 | 15     | 1k/796k                 | 2                                 | 1                     | 0.38                       | 0.46                      | TSL0808□-471KR38-PF   |
| 680             | ±10%                 | 15     | 1k/796k                 | 1.6                               | 1.5                   | 0.32                       | 0.37                      | TSL0808□-681KR32-PF   |
| 1000            | ±10%                 | 30     | 1k/252k                 | 1.3                               | 2.2                   | 0.26                       | 0.3                       | TSL0808□-102KR26-PF   |
| 1500            | ±10%                 | 30     | 1k/252k                 | 1.1                               | 3.5                   | 0.21                       | 0.25                      | TSL0808□-152KR21-PF   |
| 2200            | ±10%                 | 50     | 1k/252k                 | 0.88                              | 6.4                   | 0.17                       | 0.21                      | TSL0808□-222KR17-PF   |
| 3300            | ±10%                 | 50     | 1k/252k                 | 0.71                              | 8.5                   | 0.14                       | 0.16                      | TSL0808□-212KR14-PF   |
| 4700            | ±5%                  | 50     | 1k/252k                 | 0.68                              | 12.2                  | 0.15                       | 0.13                      | TSL0808□-472JR13-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 10%, whichever is smaller.

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

### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS

