



**THE DATASHEET OF
TSL0808RA-6R8M3R1-PF**



Inductors for Power Circuits

Radial lead

TSL series

Type: TSL0709
 TSL0808
 TSL1112
 TSL1315

Issue date: September 2011

- All specifications are subject to change without notice.
 - 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.
-

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

REMINDERS

- The storage period is less than 12 months. Be sure to follow the storage conditions (Temperature: 5 to 30°C, Humidity: 10 to 75% RH or less).
If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Before soldering, be sure to preheat components.
The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.
If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.
If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

- (1) Aerospace/Aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

Inductors for Power Circuits

Radial Lead

Conformity to RoHS Directive

TSL Series TSL0709

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.
- It is a product conforming to RoHS directive.

APPLICATIONS

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

SPECIFICATIONS

| | |
|-----------------------------|---|
| Operating temperature range | -40 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) |
|------|-----------------------------|

(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 |
|----|------------------------------|

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.

SHAPES AND DIMENSIONS



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 | |
| 1 | ±20% | 10 | 1k/7.96M | 70 | 0.006 | 6.6 | 5 | TSL0709□*2-1R0M5R0-PF |
| 1.5 | ±20% | 10 | 1k/7.96M | 56 | 0.008 | 5.4 | 4.3 | TSL0709□-1R5M4R3-PF |
| 2.2 | ±20% | 10 | 1k/7.96M | 45 | 0.011 | 4 | 3.7 | TSL0709□-2R2M3R7-PF |
| 3.3 | ±20% | 10 | 1k/7.96M | 36 | 0.018 | 3.6 | 2.9 | TSL0709□-3R3M2R9-PF |
| 4.7 | ±20% | 10 | 1k/7.96M | 29 | 0.022 | 3.1 | 2.6 | TSL0709□-4R7M2R6-PF |
| 6.8 | ±20% | 10 | 1k/7.96M | 24 | 0.028 | 2.5 | 2.3 | TSL0709□-6R8M2R3-PF |
| 10 | ±10% | 20 | 1k/2.52M | 19 | 0.043 | 2.1 | 1.9 | TSL0709□-100K1R9-PF |
| 15 | ±10% | 20 | 1k/2.52M | 15 | 0.056 | 1.7 | 1.6 | TSL0709□-150K1R6-PF |
| 22 | ±10% | 20 | 1k/2.52M | 12 | 0.086 | 1.4 | 1.3 | TSL0709□-220K1R3-PF |
| 33 | ±10% | 20 | 1k/2.52M | 9.4 | 0.14 | 1.1 | 1 | TSL0709□-330K1R0-PF |
| 47 | ±10% | 20 | 1k/2.52M | 7.6 | 0.17 | 0.96 | 0.94 | TSL0709□-470KR94-PF |
| 68 | ±10% | 20 | 1k/2.52M | 6.2 | 0.28 | 0.79 | 0.73 | TSL0709□-680KR73-PF |
| 100 | ±10% | 20 | 1k/796k | 5 | 0.33 | 0.66 | 0.67 | TSL0709□-101KR66-PF |
| 150 | ±10% | 20 | 1k/796k | 4 | 0.56 | 0.53 | 0.52 | TSL0709□-151KR52-PF |
| 220 | ±10% | 20 | 1k/796k | 3.2 | 0.72 | 0.44 | 0.46 | TSL0709□-221KR44-PF |
| 330 | ±10% | 20 | 1k/796k | 2.5 | 1.1 | 0.36 | 0.37 | TSL0709□-331KR36-PF |
| 470 | ±10% | 20 | 1k/796k | 2 | 1.7 | 0.3 | 0.3 | TSL0709□-471KR30-PF |
| 680 | ±10% | 20 | 1k/796k | 1.7 | 2.3 | 0.25 | 0.26 | TSL0709□-681KR25-PF |
| 1000 | ±10% | 70 | 1k/252k | 1.3 | 4.3 | 0.2 | 0.19 | TSL0709□-102KR19-PF |
| 1500 | ±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



• All specifications are subject to change without notice.

Inductors for Power Circuits

Radial Lead

Conformity to RoHS Directive

TSL Series TSL0808

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.
- It is a product conforming to RoHS directive.

APPLICATIONS

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

SPECIFICATIONS

| | |
|-----------------------------|---|
| Operating temperature range | -40 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 | 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 |
|----|------------------------------|

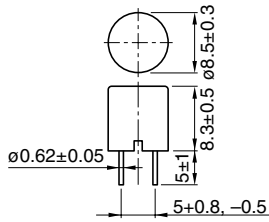
PACKAGING STYLE AND QUANTITIES

| Packaging style | Quantity |
|-----------------------|-------------------|
| Taping (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.

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SHAPES AND DIMENSIONS



Weight: 1.5g

Dimensions in mm



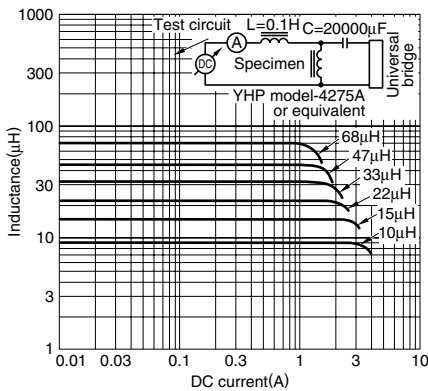
ELECTRICAL CHARACTERISTICS

| 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□-332KR14-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



• All specifications are subject to change without notice.

Inductors for Power Circuits

Radial Lead

Conformity to RoHS Directive

TSL Series TSL1112

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.
- It is a product conforming to RoHS directive.

APPLICATIONS

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

SPECIFICATIONS

| | |
|-----------------------------|---|
| Operating temperature range | -40 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 | 1112 | RA- | 3R3 | M | 5R9 | - PF |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |

(1)Series name

(2)Dimensions

| | |
|------|-------------------------------|
| 1112 | ø11.2×12.2mm (lead pitch 5mm) |
|------|-------------------------------|

(3)Packaging style

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

(4)Inductance value

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

(5)Inductance tolerance

| | |
|---|------|
| J | ±5% |
| K | ±10% |
| M | ±20% |

(6)Rated current

| | |
|-----|-------|
| 5R9 | 5.9A |
| R56 | 0.56A |

(7)Lead-free compatible product

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

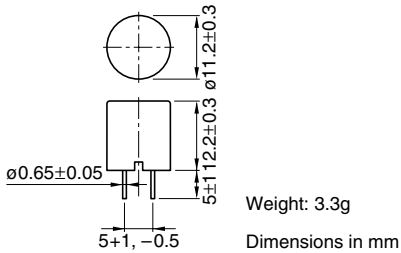
PACKAGING STYLE AND QUANTITIES

| Packaging style | Quantity |
|-----------------------|------------------|
| Taping (Ammo-pack) | 500 pieces/box |
| Bulk | 400 pieces/8tray |

• 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.

SHAPES AND DIMENSIONS



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 | |
| 1.0 | ±20% | 15 | 1k/7.96M | 144 | 0.058 | 14 | 7.7 | TSL1112□*2-1R0M7R7-PF |
| 2.2 | ±20% | 15 | 1k/7.96M | 70 | 0.073 | 10 | 6.7 | TSL1112□-2R2M6R7-PF |
| 3.3 | ±20% | 10 | 1k/7.96M | 36 | 0.01 | 8.8 | 5.9 | TSL1112□-3R3M5R9-PF |
| 4.7 | ±20% | 10 | 1k/7.96M | 28 | 0.015 | 7.2 | 4.8 | TSL1112□-4R7M4R8-PF |
| 6.8 | ±20% | 10 | 1k/7.96M | 18 | 0.016 | 6.1 | 4.6 | TSL1112□-6R8M4R6-PF |
| 10 | ±20% | 20 | 1k/2.52M | 16 | 0.025 | 5 | 3.7 | TSL1112□-100M3R7-PF |
| 15 | ±20% | 20 | 1k/2.52M | 12 | 0.029 | 4.2 | 3.4 | TSL1112□-150M3R4-PF |
| 22 | ±10% | 20 | 1k/2.52M | 9.5 | 0.04 | 3.4 | 2.9 | TSL1112□-220K2R9-PF |
| 33 | ±10% | 30 | 1k/2.52M | 7 | 0.062 | 2.8 | 2.3 | TSL1112□-330K2R3-PF |
| 47 | ±10% | 30 | 1k/2.52M | 5.8 | 0.075 | 2.3 | 2.1 | TSL1112□-470K2R1-PF |
| 68 | ±10% | 20 | 1k/2.52M | 4.7 | 0.13 | 1.9 | 1.6 | TSL1112□-680K1R6-PF |
| 100 | ±10% | 20 | 1k/796k | 3.8 | 0.16 | 1.6 | 1.4 | TSL1112□-101K1R4-PF |
| 150 | ±10% | 20 | 1k/796k | 3.1 | 0.26 | 1.3 | 1.1 | TSL1112□-151K1R1-PF |
| 220 | ±10% | 20 | 1k/796k | 2.5 | 0.33 | 1.1 | 1 | TSL1112□-221K1R0-PF |
| 330 | ±10% | 20 | 1k/796k | 2 | 0.52 | 0.88 | 0.82 | TSL1112□-331KR82-PF |
| 470 | ±10% | 10 | 1k/796k | 1.6 | 0.66 | 0.75 | 0.72 | TSL1112□-471KR72-PF |
| 680 | ±10% | 10 | 1k/796k | 1.3 | 1.1 | 0.61 | 0.56 | TSL1112□-681KR56-PF |
| 1000 | ±5% | 20 | 1k/252k | 1.1 | 1.4 | 0.51 | 0.5 | TSL1112□-102JR50-PF |
| 1500 | ±5% | 30 | 1k/252k | 0.82 | 2.4 | 0.43 | 0.38 | TSL1112□-152JR38-PF |
| 2200 | ±5% | 20 | 1k/252k | 0.76 | 3.2 | 0.35 | 0.33 | TSL1112□-222JR33-PF |
| 3300 | ±5% | 30 | 1k/252k | 0.64 | 4.9 | 0.28 | 0.26 | TSL1112□-332JR26-PF |
| 4700 | ±5% | 30 | 1k/252k | 0.54 | 7.6 | 0.24 | 0.21 | TSL1112□-472JR21-PF |
| 6800 | ±5% | 30 | 1k/252k | 0.45 | 9.8 | 0.2 | 0.18 | TSL1112□-682JR18-PF |
| 10000 | ±5% | 30 | 1k/79.6k | 0.38 | 18 | 0.17 | 0.14 | TSL1112□-103JR14-PF |
| 15000 | ±5% | 50 | 1k/79.6k | 0.29 | 24 | 0.13 | 0.12 | TSL1112□-153JR12-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



• All specifications are subject to change without notice.

Inductors for Power Circuits

Radial Lead

Conformity to RoHS Directive

TSL Series TSL1315

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.
- It is a product conforming to RoHS directive.

APPLICATIONS

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

SPECIFICATIONS

| | |
|-----------------------------|---|
| Operating temperature range | -40 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 | 1315 | RA- | 100 | K | 5R1 | - | PF |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | |

(1)Series name

(2)Dimensions

| | |
|------|-----------------------------|
| 1315 | ø14×17mm (lead pitch 7.5mm) |
|------|-----------------------------|

(3)Packaging style

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

(4)Inductance value

| | |
|-----|--------|
| 100 | 10μH |
| 102 | 1000μH |

(5)Inductance tolerance

| | |
|---|------|
| J | ±5% |
| K | ±10% |

(6)Rated current

| | |
|-----|-------|
| 5R1 | 5.1A |
| R99 | 0.99A |

(7)Lead-free compatible product

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

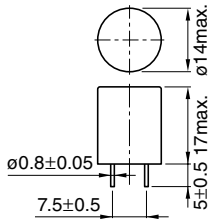
PACKAGING STYLE AND QUANTITIES

| Packaging style | Quantity |
|-----------------------|----------------|
| Taping (Ammo-pack) | 200 pieces/box |
| Bulk | 50 pieces/pack |

• 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.

SHAPES AND DIMENSIONS



Weight: 7.5g

Dimensions in mm



ELECTRICAL CHARACTERISTICS

| Inductance (μH) | Inductance tolerance | Q typ. | 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 | |
| 10 | ±10% | 70 | 1k/2.52M | 19 | 0.023 | 12 | 5.1 | TSL1315□*2-100K5R1-PF |
| 15 | ±10% | 70 | 1k/2.52M | 12 | 0.028 | 9.5 | 4.5 | TSL1315□-150K4R5-PF |
| 22 | ±10% | 60 | 1k/2.52M | 7.6 | 0.035 | 8.2 | 4.2 | TSL1315□-220K4R2-PF |
| 33 | ±10% | 50 | 1k/2.52M | 6.9 | 0.043 | 6.8 | 3.7 | TSL1315□-330K3R7-PF |
| 47 | ±10% | 50 | 1k/2.52M | 5.6 | 0.052 | 5.7 | 3.4 | TSL1315□-470K3R4-PF |
| 68 | ±10% | 40 | 1k/2.52M | 4.4 | 0.068 | 4.8 | 3 | TSL1315□-680K3R0-PF |
| 100 | ±10% | 50 | 1k/796k | 3.3 | 0.097 | 3.9 | 2.5 | TSL1315□-101K2R5-PF |
| 150 | ±10% | 50 | 1k/796k | 2.6 | 0.14 | 3.2 | 2.1 | TSL1315□-151K2R1-PF |
| 220 | ±10% | 40 | 1k/796k | 2.2 | 0.2 | 2.7 | 1.7 | TSL1315□-221K1R7-PF |
| 330 | ±10% | 30 | 1k/796k | 1.8 | 0.3 | 2.1 | 1.4 | TSL1315□-331K1R4-PF |
| 470 | ±10% | 30 | 1k/796k | 1.5 | 0.43 | 1.8 | 1.1 | TSL1315□-471K1R1-PF |
| 680 | ±10% | 30 | 1k/796k | 1.2 | 0.61 | 1.5 | 0.99 | TSL1315□-681KR99-PF |
| 1000 | ±5% | 30 | 1k/252k | 1 | 1 | 1.2 | 0.78 | TSL1315□-102JR78-PF |
| 1500 | ±5% | 40 | 1k/252k | 0.83 | 1.3 | 1 | 0.68 | TSL1315□-152JR68-PF |
| 2200 | ±5% | 40 | 1k/252k | 0.7 | 2 | 0.83 | 0.55 | TSL1315□-222JR55-PF |
| 3300 | ±5% | 40 | 1k/252k | 0.6 | 3.1 | 0.69 | 0.44 | TSL1315□-332JR44-PF |
| 4700 | ±5% | 40 | 1k/252k | 0.43 | 4.4 | 0.58 | 0.37 | TSL1315□-472JR37-PF |
| 6800 | ±5% | 30 | 1k/252k | 0.38 | 6.5 | 0.46 | 0.3 | TSL1315□-682JR30-PF |
| 10000 | ±5% | 70 | 1k/79.6k | 0.3 | 10 | 0.4 | 0.24 | TSL1315□-103JR24-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



• All specifications are subject to change without notice.

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