**⊗TDK** 

# **Inductors for Power Circuits**

Radial lead

## SL series

Type: SL1215 SL1720 SL1923 SL2125

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.

### **Conformity to RoHS Directive**

## Inductors for Power Circuits Radial Lead

## SL Series SL1215

## FEATURES

- This is a low Rdc, best for the power supply line.
- It has an open magnetic circuit for large current.
- There is a series of many types from low inductance to high inductance in large current.
- It is a product conforming to RoHS directive.

## APPLICATIONS

Televisions, CRT displays, printers, and various types of electronic products.

### SPECIFICATIONS

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

\* Only for lead type specification. Wire type's specification depends on the vibration test.

## **PRODUCT IDENTIFICATION**

SL	1215	- 100	Κ	3R6	- PF
(1)	(2)	(3)	(4)	(5)	(6)

### (1)Series name

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12	11.)1	m۵	ncı	ons
( ~ )	ישי	1110	1131	0113

Туре	Dimension	Lead pitch
1215 ø12×14.5mr	a1014 Emm	11mm (10 to 100μH for wire type)
	Ø12×14.5000	7.5mm (150 to 5600µH for lead type)

### (3)Inductance value

100	10µH	
102	1000µH	

### (4)Inductance tolerance

К	±10%

### (5)Rated current

3R6	3.6A
R20	0.2A

### (6)Lead-free compatible product

PF	Lead-free compatible product
-	

### PACKAGING STYLE AND QUANTITIES

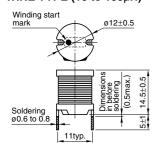
Packaging style	Quantity
Bulk	100 pieces/tray

• 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.

(2/8)

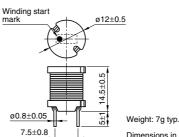
**<b>***<u>⊗</u>TDK* 

# SHAPES AND DIMENSIONS WIRE TYPE (10 to 100µH)



### **ELECTRICAL CHARACTERISTICS**

## LEAD TYPE (150 to 5600µH)





Dimensions in mm

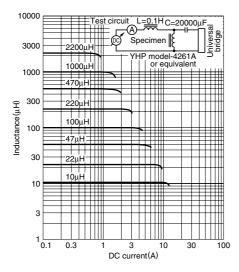
Inductance Inductance			Rated current(A)*max.			
inductance (μH)	Inductance tolerance	DC resistance (Ω)max.	Based on inductance	Based on	Part No.	Lead wire style
(μπ)	loierance	(52)max.	change	temperature rise		
10	±10%	0.019	9.8	3.6	SL1215-100K3R6-PF	Wire type
15	±10%	0.022	8.9	3.3	SL1215-150K3R3-PF	Wire type
22	±10%	0.031	7.2	2.8	SL1215-220K2R8-PF	Wire type
33	±10%	0.044	6	2.3	SL1215-330K2R3-PF	Wire type
47	±10%	0.059	4.9	2	SL1215-470K2R0-PF	Wire type
68	±10%	0.073	4.2	1.8	SL1215-680K1R8-PF	Wire type
100	±10%	0.1	3.4	1.5	SL1215-101K1R5-PF	Wire type
150	±10%	0.15	2.8	1.3	SL1215-151K1R3-PF	Lead type
220	±10%	0.26	1.9	1	SL1215-221K1R0-PF	Lead type
330	±10%	0.32	1.8	0.91	SL1215-331KR91-PF	Lead type
470	±10%	0.48	1.6	0.72	SL1215-471KR72-PF	Lead type
680	±10%	0.73	1.3	0.58	SL1215-681KR58-PF	Lead type
1000	±10%	0.96	1.1	0.51	SL1215-102KR51-PF	Lead type
1500	±10%	1.4	0.9	0.42	SL1215-152KR42-PF	Lead type
2200	±10%	2.5	0.7	0.31	SL1215-222KR31-PF	Lead type
3300	±10%	3.3	0.6	0.27	SL1215-332KR27-PF	Lead type
5600	±10%	6.4	0.47	0.2	SL1215-562KR20-PF	Lead type

\* Rated current: Value obtained when current flows and self-temperature has risen to 25°C.

• Test equipment Inductance:LCR METER YHP4261A, or equivalent

Rdc: MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



### **Conformity to RoHS Directive**

## Inductors for Power Circuits Radial Lead

SL Series SL1720

## FEATURES

- This is a low Rdc, best for the power supply line.
- It has an open magnetic circuit for large current.
- There is a series of many types from low inductance to high inductance in large current.
- It is a product conforming to RoHS directive.

## APPLICATIONS

Televisions, CRT displays, printers, and various types of electronic products.

## SPECIFICATIONS

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

## **PRODUCT IDENTIFICATION**

SL	1720	- 151	Κ	2R1	- PF
(1)	(2)	(3)	(4)	(5)	(6)

### (1)Series name

### (2)Dimensions

Туре	Dimension	Lead pitch
1720	ø16.9×20.5mm	10mm

#### (3)Inductance value

151	150µH	
102	1000μH	

### (4)Inductance tolerance

### (5)Rated current

, 2R1	2 1A	
R60	0.6A	

### (6)Lead-free compatible product

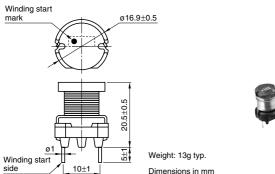
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Bulk	100 pieces/tray

• 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.

(4/8)

### SHAPES AND DIMENSIONS





Dimensions in mm

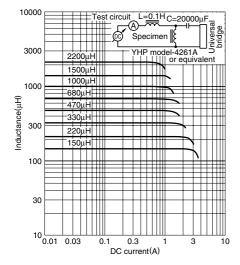
## **ELECTRICAL CHARACTERISTICS**

Inductance	Inductance	DC resistance	Rated current(A)*max.		
(μH)	tolerance	$(\Omega)$ max.	Based on inductance change	Based on Part No. temperature rise	
150	±10%	0.1	3	2.1	SL1720-151K2R1-PF
220	±10%	0.13	2.6	1.8	SL1720-221K1R8-PF
330	±10%	0.18	2	1.5	SL1720-331K1R5-PF
470	±10%	0.27	1.7	1.3	SL1720-471K1R3-PF
680	±10%	0.38	1.4	1	SL1720-681K1R0-PF
1000	±10%	0.54	1.1	0.9	SL1720-102KR90-PF
1500	±10%	0.86	0.98	0.72	SL1720-152KR72-PF
2200	±10%	1.22	0.81	0.6	SL1720-222KR60-PF

\* Rated current: Value obtained when current flows and self-temperature has risen to 25°C.

• Test equipment Inductance:LCR METER YHP4261A, or equivalent Rdc: MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

## **TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS**



• All specifications are subject to change without notice.

### **Conformity to RoHS Directive**

## Inductors for Power Circuits Radial Lead

SL Series SL1923

## FEATURES

- This is a low Rdc, best for the power supply line.
- It has an open magnetic circuit for large current.
- There is a series of many types from low inductance to high inductance in large current.
- It is a product conforming to RoHS directive.

## APPLICATIONS

Televisions, CRT displays, printers, and various types of electronic products.

## SPECIFICATIONS

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

## **PRODUCT IDENTIFICATION**

SL	1923	- 471	Κ	1R5	- PF
(1)	(2)	(3)	(4)	(5)	(6)

### (1)Series name

### (2)Dimensions

Туре	Dimension	Lead pitch	
1923	ø18.8×23.5mm	10mm	

### (3)Inductance value

471	470µH	
102	1000µH	

### (4)Inductance tolerance

|--|

### (5)Rated current

,		
1R5	1.5A	
R26	0.26A	

### (6)Lead-free compatible product

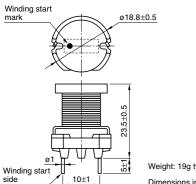
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Bulk	100 pieces/tray

• 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.

(6/8)

### SHAPES AND DIMENSIONS







### **ELECTRICAL CHARACTERISTICS**

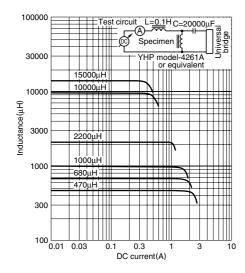
Inductorea Inductorea		DC resistance	Rated current(A)*max.	Rated current(A)*max.	
Inductance (µH)	Inductance tolerance	$(\Omega)$ max.	Based on inductance change	Based on temperature rise	Part No.
470	±10%	0.2	2.1	1.5	SL1923-471K1R5-PF
680	±10%	0.29	1.8	1.3	SL1923-681K1R3-PF
1000	±10%	0.41	1.4	1.1	SL1923-102K1R1-PF
2200	±10%	1	1	0.7	SL1923-222KR70-PF
10000	±10%	4.3	0.46	0.33	SL1923-103KR33-PF
15000	±10%	7.1	0.38	0.26	SL1923-153KR26-PF

 $^{\ast}$  Rated current: Value obtained when current flows and self-temperature has risen to 25°C.

• Test equipment Inductance:LCR METER YHP4261A, or equivalent

Rdc: MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

## **TYPICAL ELECTRICAL CHARACTERISTICS** INDUCTANCE CHANGE vs. DC SUPERPOSITION **CHARACTERISTICS**



• All specifications are subject to change without notice.

## Inductors for Power Circuits Radial Lead

SL Series SL2125

## FEATURES

- This is a low Rdc, best for the power supply line.
- It has an open magnetic circuit for large current.
- There is a series of many types from low inductance to high inductance in large current.
- It is a product conforming to RoHS directive.

## APPLICATIONS

Televisions, CRT displays, printers, and various types of electronic products.

## SPECIFICATIONS

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

## **PRODUCT IDENTIFICATION**

SL	2125 ·	102	Κ	1R3	- PF
(1)	(2)	(3)	(4)	(5)	(6)

### (1)Series name

### (2)Dimensions

Туре	Dimension	Lead pitch	
2125	ø20.8×25.5mm	10mm	

#### (3)Inductance value

102	1000µH	
103	10000μH	

### (4)Inductance tolerance

K ±10%
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### (5)Rated current

-,		
1R3	1.3A	
R41	0.41A	

### (6)Lead-free compatible product

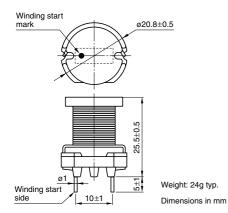
PF Lead-free compatible product	
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### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Bulk	100 pieces/tray

• 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.

### SHAPES AND DIMENSIONS





## ELECTRICAL CHARACTERISTICS

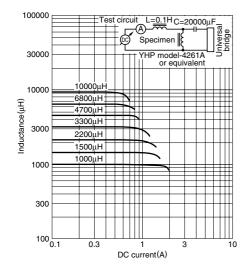
Inductance (μH)	Inductance tolerance	Test frequency L (kHz)	DC resistance (Ω)max.	Rated current(A)*max.		
				Based on inductance change	Based on temperature rise	Part No.
1000	±10%	1	0.35	1.7	1.3	SL2125-102K1R3-PF
1500	±10%	1	0.61	1.3	0.99	SL2125-152KR99-PF
2200	±10%	1	0.78	1.1	0.87	SL2125-222KR87-PF
3300	±10%	1	1.15	0.95	0.72	SL2125-332KR72-PF
4700	±10%	1	1.71	0.78	0.59	SL2125-472KR59-PF
6800	±10%	1	2.61	0.66	0.47	SL2125-682KR47-PF
10000	±10%	1	3.41	0.55	0.41	SL2125-103KR41-PF

\* Rated current: Value obtained when current flows and self-temperature has risen to 25°C.

• Test equipment Inductance: LCR METER YHP4261A, or equivalent

Rdc: MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



<sup>•</sup> All specifications are subject to change without notice.