

# Wound Type SMD Inductors (Coils)

For DC to DC Converters

SLF (Closed Magnetic Circuit Core) series

Type:           SLF6025  
                  SLF6028  
                  SLF6045  
                  SLF7032  
                  SLF7045  
                  SLF7055  
                  SLF10145  
                  SLF10165  
                  SLF12555  
                  SLF12565  
                  SLF12575

Issue date:     November 2010

- 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.
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# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF6025

### FEATURES

- The SLF series are characterized by low profile, low DC resistance, and high current handling capacities.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.

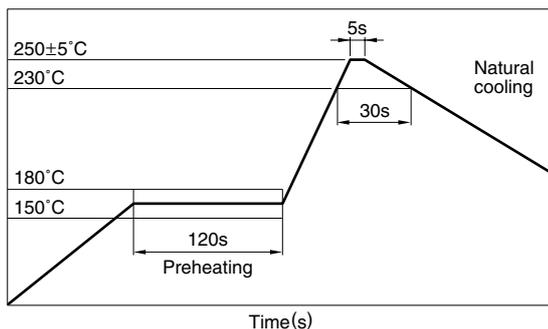
### APPLICATIONS

Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

Operating temperature range	-20 to +85°C [Including self-temperature rise]
Storage temperature range	-40 to +85°C[Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

SLF	6025	T-	4R7	M	1R5	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	

(1) Series name

(2) Dimensions

6025	6.0×6.0×2.5mm (L×W×T)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

4R7	4.7μH
100	10μH

(5) Inductance tolerance

M	±20%
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(6) Rated current

1R5	1.5A
R88	0.88A

(7) Lead-free compatible product

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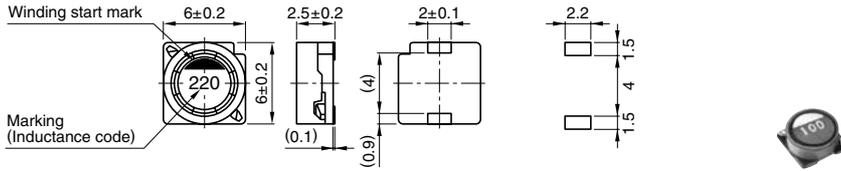
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	1000 pieces/reel

• 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/RECOMMENDED PC BOARD PATTERN



Weight: 0.3g typ.

Dimensions in mm

## ELECTRICAL CHARACTERISTICS

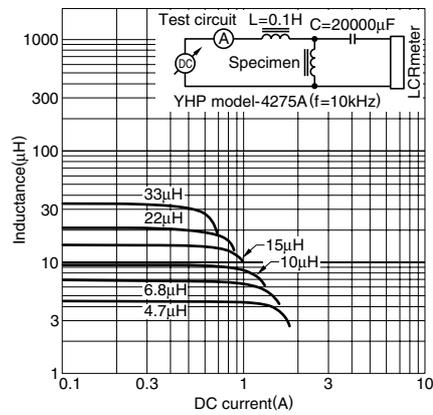
Inductance ( $\mu\text{H}$ )	Inductance tolerance	Test frequency L (kHz)	DC resistance ( $\Omega$ ) $\pm$ 20%	Rated current (A)*		Part No.
				Based on inductance change	Based on temperature rise	
4.7	$\pm$ 20%	100	0.0306	1.5max.	1.8typ.	SLF6025T-4R7M1R5-PF
6.8	$\pm$ 20%	100	0.0442	1.3max.	1.5typ.	SLF6025T-6R8M1R3-PF
10	$\pm$ 20%	100	0.0573	1max.	1.3typ.	SLF6025T-100M1R0-PF
15	$\pm$ 20%	100	0.085	0.88max.	1.1typ.	SLF6025T-150MR88-PF
22	$\pm$ 20%	100	0.122	0.73max.	0.94typ.	SLF6025T-220MR73-PF
33	$\pm$ 20%	100	0.18	0.59max.	0.79typ.	SLF6025T-330MR59-PF
47	$\pm$ 20%	100	0.24	0.48max.	0.67typ.	SLF6025T-470MR48-PF
68	$\pm$ 20%	100	0.37	0.42max.	0.54typ.	SLF6025T-680MR42-PF
100	$\pm$ 20%	100	0.5	0.33max.	0.47typ.	SLF6025T-101MR33-PF

\* Rated current: Value obtained when current flows and the temperature has risen to 25°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

- Test equipment: L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP, or equivalent  
Rdc: DIGITAL MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF6028

### FEATURES

- The SLF series are characterized by low profile, low DC resistance, and high current handling capacities.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.

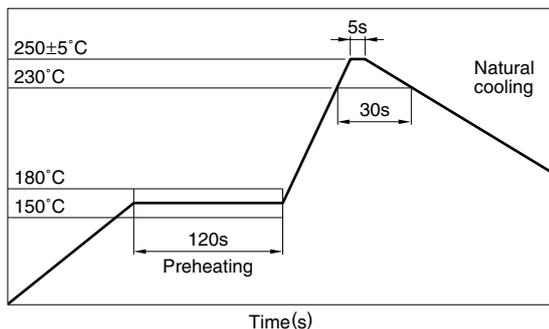
### APPLICATIONS

Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

Operating temperature range	-20 to +85°C [Including self-temperature rise]
Storage temperature range	-40 to +85°C[Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

SLF	6028	T-	4R7	M	1R6	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	

(1) Series name

(2) Dimensions

6028	6.0×6.0×2.8mm (L×W×T)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

4R7	4.7μH
100	10μH

(5) Inductance tolerance

M	±20%
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(6) Rated current

1R6	1.6A
R77	0.77A

(7) Lead-free compatible product

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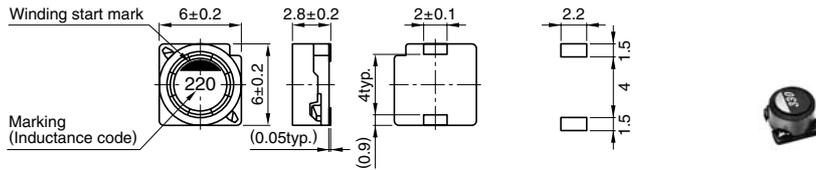
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	1000 pieces/reel

• 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/RECOMMENDED PC BOARD PATTERN



Weight: 0.3g typ.

Dimensions in mm

## ELECTRICAL CHARACTERISTICS

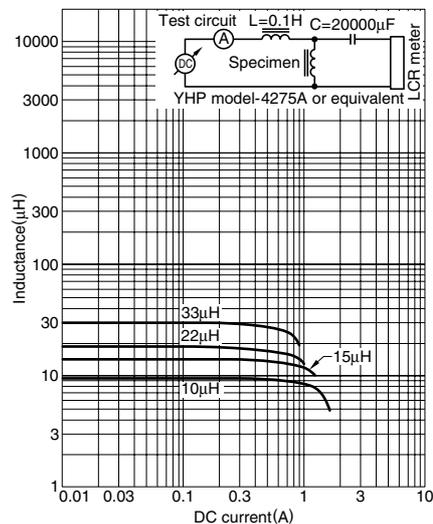
Inductance (μH)	Inductance tolerance	Test frequency L (kHz)	DC resistance (Ω)±20%	Rated current (A)*		Part No.
				Based on inductance change	Based on temperature rise	
4.7	±20%	100	0.0284	1.6max.	2.5typ.	SLF6028T-4R7M1R6-PF
6.8	±20%	100	0.0354	1.5max.	2.2typ.	SLF6028T-6R8M1R5-PF
10	±20%	100	0.0532	1.3max.	1.8typ.	SLF6028T-100M1R3-PF
15	±20%	100	0.0745	1max.	1.4typ.	SLF6028T-150M1R0-PF
22	±20%	100	0.104	0.77max.	1.3typ.	SLF6028T-220MR77-PF
33	±20%	100	0.148	0.69max.	1.1typ.	SLF6028T-330MR69-PF
47	±20%	100	0.21	0.59max.	0.92typ.	SLF6028T-470MR59-PF
68	±20%	100	0.29	0.5max.	0.78typ.	SLF6028T-680MR50-PF
100	±20%	100	0.43	0.42max.	0.64typ.	SLF6028T-101MR42-PF
150	±20%	100	0.65	0.34max.	0.5typ.	SLF6028T-151MR34-PF
220	±20%	100	0.98	0.26max.	0.38typ.	SLF6028T-221MR26-PF

\* Rated current: Value obtained when current flows and the temperature has risen to 25°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

- Test equipment L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP, or equivalent (Test frequency: 100kHz/0.5V)  
Rdc: DIGITAL MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



• All specifications are subject to change without notice.

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF6045

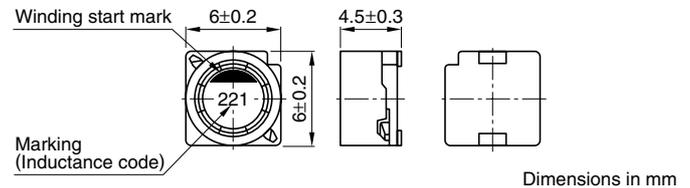
### FEATURES

- Miniature size  
Mount area: 6×6mm  
Height: 4.8mm max.
- Generic use for portable DC to DC converter line.
- High magnetic shield construction should actualize high resolution for EMC protection.
- Available for automatic mounting in tape and reel package.
- The products do not contain lead and support lead-free soldering.

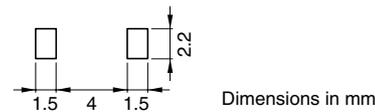
### APPLICATIONS

LCD-TVs, PDP-TVs, LCD displays, DVD recorders, HDDs, DSCs, etc.

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance (mΩ)	Rated current(A)*	
					Based on inductance change	Based on temperature rise
SLF6045T-1R5N4R0-3PF	1.5	±30	100	16±30%	4	4.1
SLF6045T-2R2N3R3-3PF	2.2	±30	100	18±30%	3.3	3.8
SLF6045T-3R3N2R8-3PF	3.3	±30	100	21.5±30%	2.8	3.4
SLF6045T-4R7N2R4-3PF	4.7	±30	100	26.5±30%	2.4	3.2
SLF6045T-6R8N2R0-3PF	6.8	±30	100	33±30%	2	2.8
SLF6045T-100M1R6-3PF	10	±20	100	39±20%	1.6	2.7
SLF6045T-150M1R3-3PF	15	±20	100	59.5±20%	1.3	2.2
SLF6045T-220M1R1-3PF	22	±20	100	82±20%	1.1	1.8

\* Rated current: Value obtained when current flows and the temperature has risen to 30°C or when DC current flows and the nominal value of inductance has fallen by 10%, whichever is smaller.

- Operating temperature range: -40 to +105°C (Including self-temperature rise)

• 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.

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF7032

### FEATURES

- The SLF series are characterized by low profile, low DC resistance, and high current handling capacities.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.

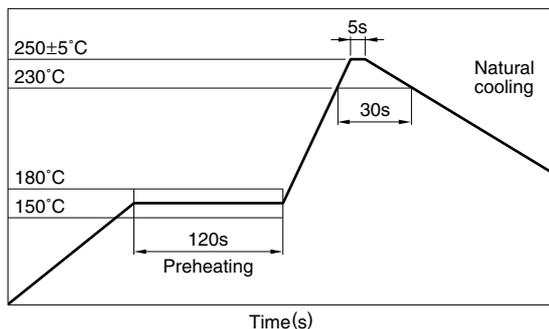
### APPLICATIONS

Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

Operating temperature range	-20 to +85°C [Including self-temperature rise]
Storage temperature range	-40 to +85°C[Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

SLF	7032	T-	220	M	R96	-2	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(1) Series name

(2) Dimensions

7032	7.0×7.0×3.2mm (L×W×T)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

3R3	3.3μH
100	10μH

(5) Inductance tolerance

M	±20%
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(6) Rated current

1R9	1.9A
R96	0.96A

(7) TDK internal code

Some products may not have this number.

(8) Lead-free compatible product

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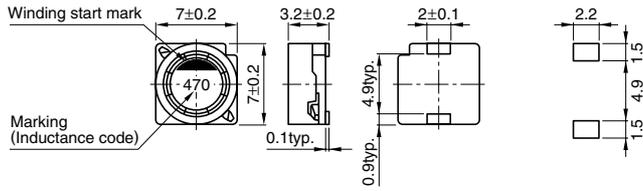
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	1000 pieces/reel

• 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/RECOMMENDED PC BOARD PATTERN



Weight: 0.4g

Dimensions in mm

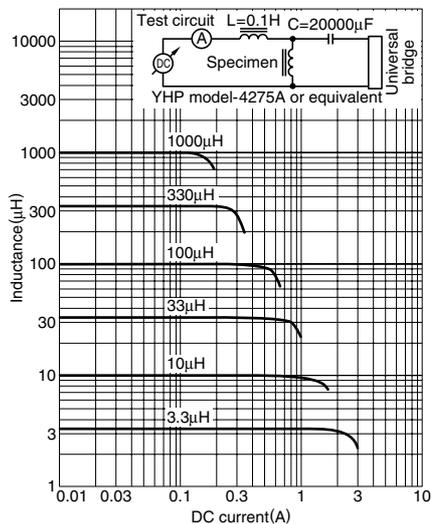
## ELECTRICAL CHARACTERISTICS

Inductance (μH)	Inductance tolerance	Test frequency L (kHz)	DC resistance (Ω)±20%	Rated current (A)max.	Part No.
3.3	±20%	100	0.023	1.9	SLF7032T-3R3M1R9-2PF
4.7	±20%	100	0.030	1.7	SLF7032T-4R7M1R7-2PF
6.8	±20%	100	0.041	1.6	SLF7032T-6R8M1R6-2PF
10	±20%	100	0.053	1.4	SLF7032T-100M1R4-2PF
15	±20%	100	0.075	1.1	SLF7032T-150M1R1-2PF
22	±20%	100	0.11	0.96	SLF7032T-220MR96-2PF
33	±20%	100	0.16	0.75	SLF7032T-330MR75-2PF
47	±20%	100	0.24	0.67	SLF7032T-470MR67-2PF
68	±20%	100	0.31	0.59	SLF7032T-680MR59-2PF
100	±20%	100	0.45	0.45	SLF7032T-101MR45-2PF
150	±20%	100	0.65	0.37	SLF7032T-151MR37-2PF
220	±20%	100	1.05	0.29	SLF7032T-221MR29-2PF
330	±20%	100	1.67	0.22	SLF7032T-331MR22-2PF
470	±20%	100	2.05	0.2	SLF7032T-471MR20-2PF
680	±20%	100	3.15	0.16	SLF7032T-681MR16-2PF
1000	±20%	100	4.78	0.13	SLF7032T-102MR13-2PF

- Test equipment L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP, or equivalent (Measured at 100kHz/0.5V)  
Rdc: MATSUSHITA, VP-2941A DIGITAL MILLIOHM METER, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF7045

### FEATURES

- The SLF series are characterized by low profile, low DC resistance, and high current handling capacities.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.

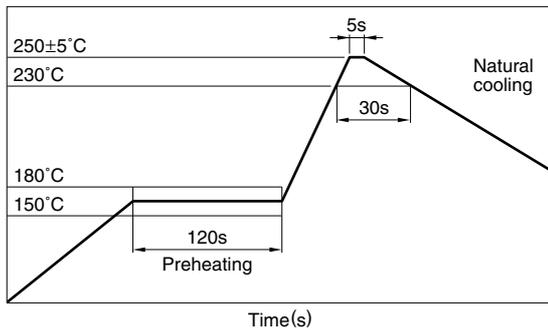
### APPLICATIONS

Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

Operating temperature range	-20 to +85°C [Including self-temperature rise]
Storage temperature range	-40 to +85°C[Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

SLF	7045	T-	220	M	R90	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	

(1) Series name

(2) Dimensions

7045	7.0×7.0×4.5mm (L×W×T)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

3R3	3.3μH
100	10μH

(5) Inductance tolerance

M	±20%
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(6) Rated current

2R5	2.5A
R90	0.90A

(7) Lead-free compatible product

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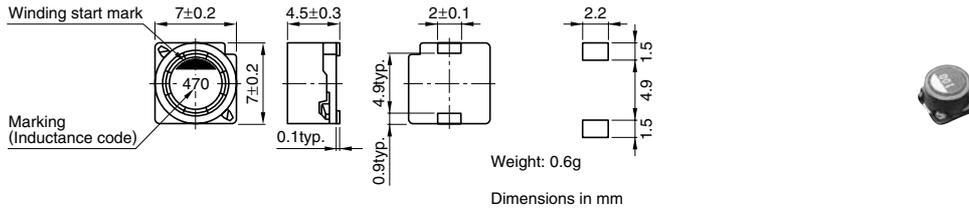
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	1000 pieces/reel

• 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/RECOMMENDED PC BOARD PATTERN



## ELECTRICAL CHARACTERISTICS

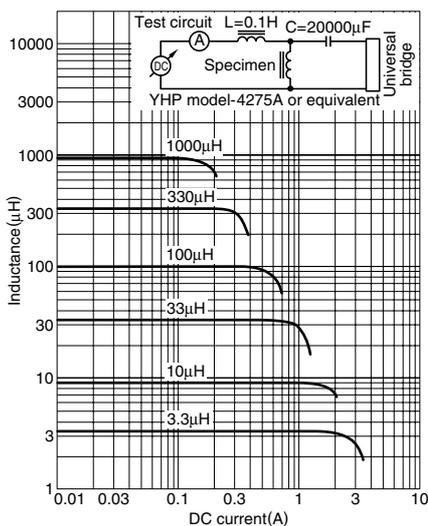
Inductance (μH)	Inductance tolerance	Test frequency L (kHz)	DC resistance (Ω)±20%	Rated current(A)* max.		Part No.
				Based on inductance change	Based on temperature rise	
3.3	±20%	100	0.02	2.5	2.3	SLF7045T-3R3M2R5-PF
4.7	±20%	100	0.03	2	2.1	SLF7045T-4R7M2R0-PF
6.8	±20%	100	0.039	1.7	1.74	SLF7045T-6R8M1R7-PF
10	±20%	100	0.036	1.3	1.78	SLF7045T-100M1R3-PF
15	±20%	100	0.052	1.1	1.53	SLF7045T-150M1R1-PF
22	±20%	100	0.061	0.9	1.34	SLF7045T-220MR90-PF
33	±20%	100	0.096	0.82	1.09	SLF7045T-330MR82-PF
47	±20%	100	0.125	0.75	0.92	SLF7045T-470MR75-PF
68	±20%	100	0.175	0.6	0.77	SLF7045T-680MR60-PF
100	±20%	100	0.25	0.5	0.65	SLF7045T-101MR50-PF
150	±20%	100	0.34	0.4	0.55	SLF7045T-151MR40-PF
220	±20%	100	0.52	0.33	0.45	SLF7045T-221MR33-PF
330	±20%	100	0.74	0.25	0.37	SLF7045T-331MR25-PF
470	±20%	100	1.05	0.22	0.31	SLF7045T-471MR22-PF
680	±20%	100	1.48	0.2	0.27	SLF7045T-681MR20-PF
1000	±20%	100	2.28	0.14	0.25	SLF7045T-102MR14-PF

\* Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the nominal value of inductance has fallen by 10%, whichever is smaller.

- Test equipment L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP, or equivalent (Measured at 100kHz/0.5V)
- Rdc: MATSUSHITA, VP-2941A DIGITAL MILLIOHM METER, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF7055

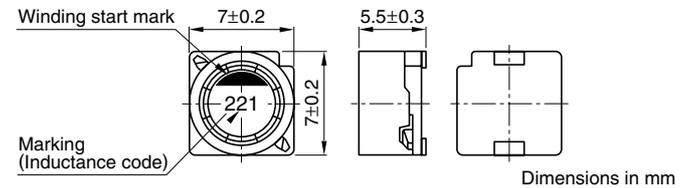
### FEATURES

- Miniature size  
Mount area: 7×7mm  
Height: 5.8mm max.
- Generic use for portable DC to DC converter line.
- High magnetic shield construction should actualize high resolution for EMC protection.
- Available for automatic mounting in tape and reel package.
- The products do not contain lead and support lead-free soldering.

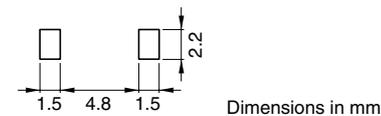
### APPLICATIONS

LCD-TV's, PDP-TV's, LCD displays, DVD recorders, HDDs, DSCs, etc.

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance (mΩ)	Rated current(A)*	
					Based on inductance change	Based on temperature rise
SLF7055T-1R5N4R0-3PF	1.5	±30	100	17.4±30%	6.2	4
SLF7055T-2R2N3R5-3PF	2.2	±30	100	21.7±30%	5.3	3.5
SLF7055T-3R3N3R3-3PF	3.3	±30	100	24±30%	4.3	3.3
SLF7055T-4R7N3R1-3PF	4.7	±30	100	28±30%	3.6	3.1
SLF7055T-6R8N2R8-3PF	6.8	±30	100	34±30%	3	2.8
SLF7055T-100M2R5-3PF	10	±20	100	39.1±20%	2.6	2.5
SLF7055T-150M2R1-3PF	15	±20	100	50.8±20%	2.1	2.2
SLF7055T-220M1R7-3PF	22	±20	100	64.3±20%	1.7	2

\* Rated current: Value obtained when current flows and the temperature has risen to 30°C or when DC current flows and the nominal value of inductance has fallen by 10%, whichever is smaller.

- Operating temperature range: -40 to +105°C (Including self-temperature rise)

• 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.

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF10145

### FEATURES

- The SLF series are characterized by low profile, low DC resistance, and high current handling capacities.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.

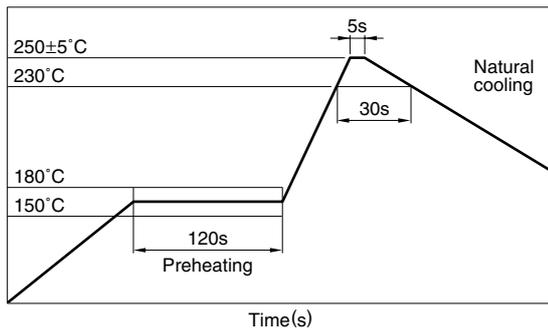
### APPLICATIONS

Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

Operating temperature range	-20 to +90°C [Including self-temperature rise]
Storage temperature range	-40 to +90°C[Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

SLF	10145	T	220	M	1R9	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series name

(2) Dimensions

10145	10.1×10.1×4.5mm (L×W×T)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

100	10μH
101	100μH

(5) Inductance tolerance

M	±20%
N	±30%

(6) Rated current

1R9	1.9A
R79	0.79A

(7) Lead-free compatible product

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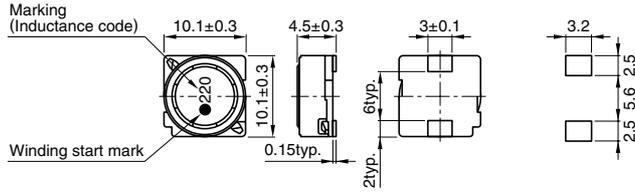
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	500 pieces/reel

• 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/RECOMMENDED PC BOARD PATTERN



Weight: 1.3g typ.

Dimensions in mm

## ELECTRICAL CHARACTERISTICS

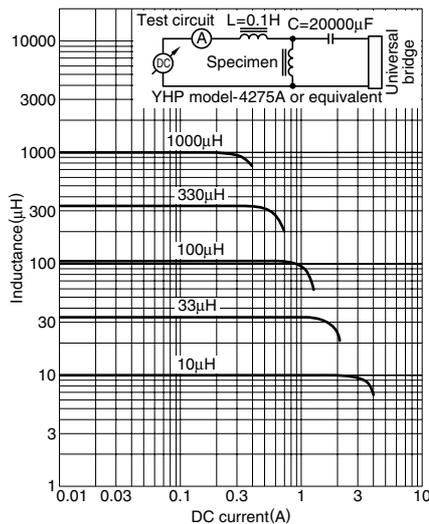
Inductance ( $\mu\text{H}$ )	Inductance tolerance	Test frequency L (kHz)	DC resistance ( $\Omega$ ) $\pm 20\%$	Rated current (A)* max.		Part No.
				Based on inductance change	Based on temperature rise	
3.3	$\pm 30\%$	1	0.0161	4.9	3.7	SLF10145T-3R3N3R7-PF
5.6	$\pm 20\%$	1	0.0220	3.8	3.2	SLF10145T-5R6M3R2-PF
10	$\pm 20\%$	1	0.0364	3	2.5	SLF10145T-100M2R5-PF
15	$\pm 20\%$	1	0.0472	2.4	2.2	SLF10145T-150M2R2-PF
22	$\pm 20\%$	1	0.0591	2.1	1.9	SLF10145T-220M1R9-PF
33	$\pm 20\%$	1	0.0815	1.6	1.7	SLF10145T-330M1R6-PF
47	$\pm 20\%$	1	0.1	1.4	1.5	SLF10145T-470M1R4-PF
68	$\pm 20\%$	1	0.14	1.2	1.3	SLF10145T-680M1R2-PF
100	$\pm 20\%$	1	0.2	1	1.1	SLF10145T-101M1R0-PF
150	$\pm 20\%$	1	0.35	0.79	0.81	SLF10145T-151MR79-PF
220	$\pm 20\%$	1	0.47	0.65	0.7	SLF10145T-221MR65-PF
330	$\pm 20\%$	1	0.68	0.54	0.58	SLF10145T-331MR54-PF
470	$\pm 20\%$	1	1.03	0.47	0.47	SLF10145T-471MR47-PF
680	$\pm 20\%$	1	1.6	0.38	0.38	SLF10145T-681MR38-PF
1000	$\pm 20\%$	1	2.8	0.32	0.29	SLF10145T-102MR29-PF
1500	$\pm 20\%$	1	3.4	0.22	0.26	SLF10145T-152MR22-PF

\* Rated current: Value obtained when current flows and the temperature has risen to 30°C or when DC current flows and the nominal value of inductance has fallen by 10%, whichever is smaller.

- Test equipment L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP, or equivalent (Measured at 1kHz/0.5V)  
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



• All specifications are subject to change without notice.

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF10165

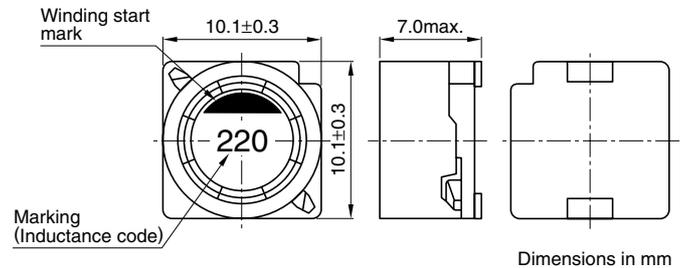
### FEATURES

- Miniature size  
Mount area: 10.1×10.1mm  
Height: 7mm max.
- Generic use for portable DC to DC converter line.
- High magnetic shield construction should actualize high resolution for EMC protection.
- Available for automatic mounting in tape and reel package.
- The products do not contain lead and support lead-free soldering.

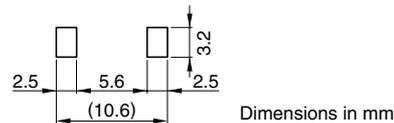
### APPLICATIONS

TVs, PDPs, notebook PCs, portable DVD players, terminal adapters, amusement games, LCD monitors, digital audios, etc.

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance (mΩ)	Rated current(A)*	
					Based on inductance change typ.	Based on temperature rise typ.
SLF10165T-1R5N6R83PF	1.5	±30	100	6.7±30%	10.7	6.8
SLF10165T-2R2N6R33PF	2.2	±30	100	8.4±30%	8.9	6.3
SLF10165T-3R3N5R83PF	3.3	±30	100	9.6±30%	7.8	5.8
SLF10165T-4R7N4R73PF	4.7	±30	100	11.7±30%	6.1	4.7
SLF10165T-6R8N4R33PF	6.8	±30	100	14±30%	4.6	4.3
SLF10165T-100M3R83PF	10	±20	100	18.5±20%	4.1	3.8
SLF10165T-150M3R13PF	15	±20	100	27±20%	3.1	3.1
SLF10165T-220M2R43PF	22	±20	100	44.8±20%	2.7	2.4

\* Rated current: Value obtained when current flows and the temperature has risen to 30°C or when DC current flows and the nominal value of inductance has fallen by 10%, whichever is smaller.

- Operating temperature range: -40 to +105°C (Including self-temperature rise)

• 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.

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF12555

### FEATURES

- The SLF series are characterized by low profile, low DC resistance, and high current handling capacities.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.

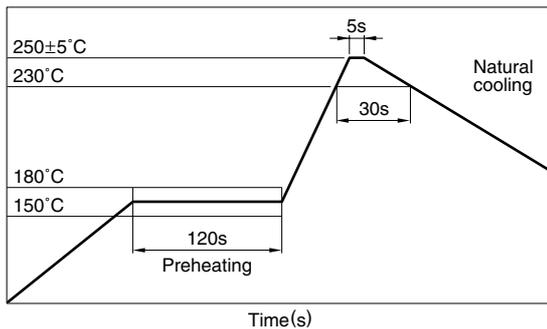
### APPLICATIONS

Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

Operating temperature range	-20 to +90°C [Including self-temperature rise]
Storage temperature range	-40 to +90°C[Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

SLF	12555	T	220	M	2R3	- PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series name

(2) Dimensions

12555	12.5×12.5×5.5mm (L×W×T)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

6R0	6μH
100	10μH

(5) Inductance tolerance

M	±20%
N	±30%

(6) Rated current

1R9	1.9A
R88	0.88A

(7) Lead-free compatible product

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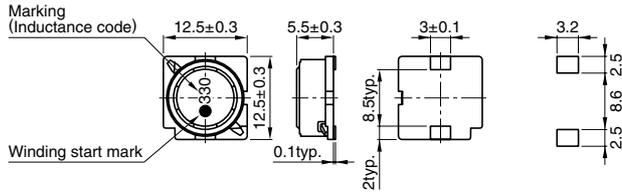
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	500 pieces/reel

• 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/RECOMMENDED PC BOARD PATTERN



Weight: 2.6g  
Dimensions in mm

### ELECTRICAL CHARACTERISTICS

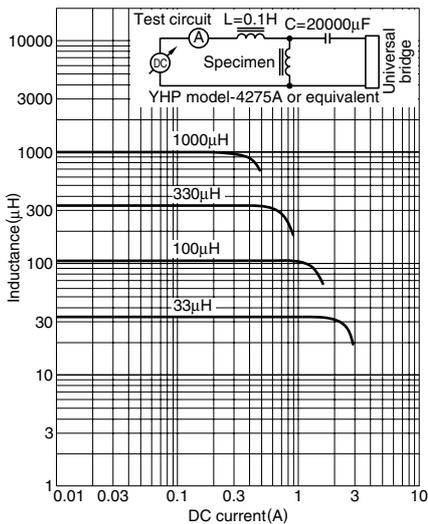
Inductance (μH)	Inductance tolerance	Test frequency L (kHz)	DC resistance (Ω)±20%	Rated current (A)* max.		Part No.
				Based on inductance change	Based on temperature rise	
6	±30%	1	0.0164	3.6	4.9	SLF12555T-6R0N3R6-PF
10	±20%	1	0.0215	3.4	4.3	SLF12555T-100M3R4-PF
15	±20%	1	0.0259	2.8	3.9	SLF12555T-150M2R8-PF
22	±20%	1	0.0338	2.3	3.4	SLF12555T-220M2R3-PF
33	±20%	1	0.0415	1.9	3.1	SLF12555T-330M1R9-PF
47	±20%	1	0.0618	1.6	2.5	SLF12555T-470M1R6-PF
68	±20%	1	0.0832	1.3	2.2	SLF12555T-680M1R3-PF
100	±20%	1	0.117	1.1	1.8	SLF12555T-101M1R1-PF
150	±20%	1	0.19	0.88	1.4	SLF12555T-151MR88-PF
220	±20%	1	0.27	0.72	1.2	SLF12555T-221MR72-PF
330	±20%	1	0.41	0.59	1	SLF12555T-331MR59-PF
470	±20%	1	0.52	0.49	0.88	SLF12555T-471MR49-PF
680	±20%	1	0.76	0.43	0.73	SLF12555T-681MR43-PF
1000	±20%	1	1.12	0.34	0.6	SLF12555T-102MR34-PF
1500	±20%	1	1.73	0.29	0.48	SLF12555T-152MR29-PF

\* Rated current: Value obtained when current flows and the temperature has risen to 30°C or when DC current flows and the nominal value of inductance has fallen by 10%, whichever is smaller.

- Test equipment L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP, or equivalent (Measured at 1kHz/0.5V)  
Rdc:MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



• All specifications are subject to change without notice.

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF12565

### FEATURES

- The SLF series are characterized by low profile, low DC resistance, and high current handling capacities.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.

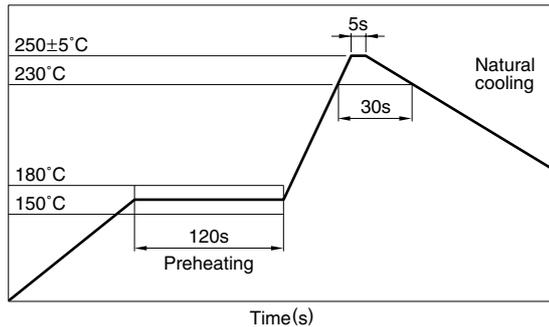
### APPLICATIONS

Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

Operating temperature range	-20 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C[Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

SLF	12565	T	220	M	3R5	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series name

(2) Dimensions

12565	12.5×12.5×6.5mm (L×W×T)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

2R0	2μH
100	10μH

(5) Inductance tolerance

M	±20%
N	±30%

(6) Rated current

1R6	1.6A
3R5	3.5A

(7) Lead-free compatible product

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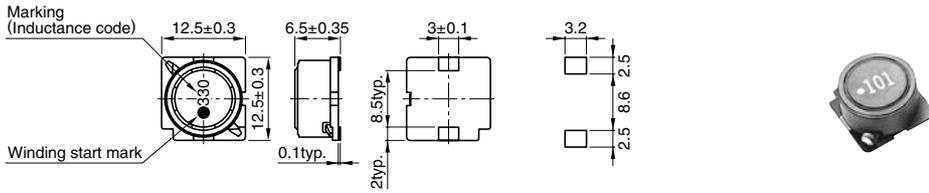
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	500 pieces/reel

• 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/RECOMMENDED PC BOARD PATTERN



Weight: 3.2g

Dimensions in mm

### ELECTRICAL CHARACTERISTICS

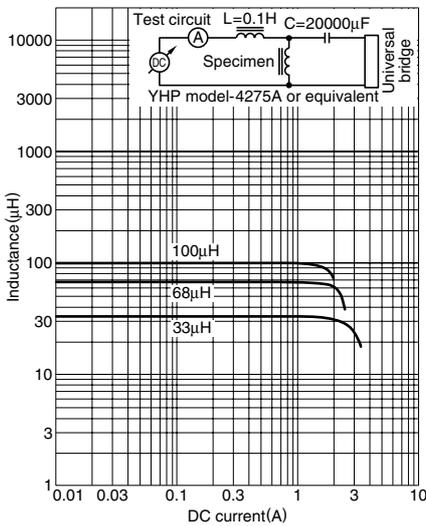
Inductance (μH)	Inductance tolerance	Test frequency L (kHz)	DC resistance (Ω)±20%	Rated current (A)* max.		Part No.
				Based on inductance change	Based on temperature rise	
2	±30%	1	0.0117	10	6.2	SLF12565T-2R0N6R2-PF
4.2	±30%	1	0.015	7.3	5.5	SLF12565T-4R2N5R5-PF
7	±30%	1	0.0177	5.7	5	SLF12565T-7R0N5R0-PF
10	±20%	1	0.0202	5	4.8	SLF12565T-100M4R8-PF
15	±20%	1	0.0237	4.2	4.4	SLF12565T-150M4R2-PF
22	±20%	1	0.0316	3.5	3.8	SLF12565T-220M3R5-PF
33	±20%	1	0.0406	2.8	3.4	SLF12565T-330M2R8-PF
47	±20%	1	0.0578	2.4	2.8	SLF12565T-470M2R4-PF
68	±20%	1	0.0787	2	2.4	SLF12565T-680M2R0-PF
100	±20%	1	0.123	1.6	1.9	SLF12565T-101M1R6-PF
220	±20%	1	0.273	1	1.2	SLF12565T-221M1R0-PF

\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 10%, whichever is smaller.

- Test equipment L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP or equivalent (Measured at 1kHz/0.5V)  
Rdc:MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



• All specifications are subject to change without notice.

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SLF Series SLF12575

### FEATURES

- The SLF series are characterized by low profile, low DC resistance, and high current handling capacities.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- Flat bottom surface ensures secure, reliable mounting.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.

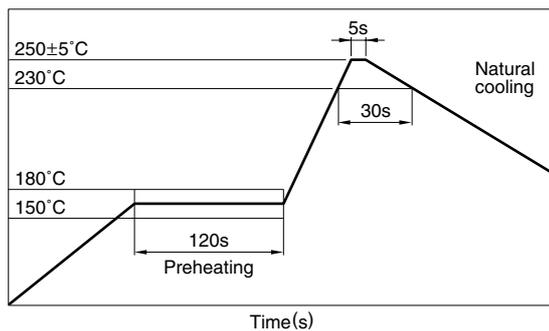
### APPLICATIONS

Portable telephones, personal computers, hard disk drives, and other electronic equipment.

### SPECIFICATIONS

Operating temperature range	-20 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C[Unit of products]

### RECOMMENDED REFLOW SOLDERING CONDITIONS



### PRODUCT IDENTIFICATION

SLF	12575	T	220	M	3R2	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series name

(2) Dimensions

12575	12.5×12.5×7.5mm (L×W×T)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

3R3	3.3μH
100	10μH

(5) Inductance tolerance

M	±20%
N	±30%

(6) Rated current

1R9	1.9A
3R2	3.2A

(7) Lead-free compatible product

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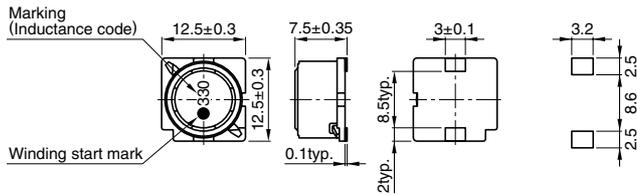
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	500 pieces/reel

• 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/RECOMMENDED PC BOARD PATTERN



Weight: 3.6g

Dimensions in mm

## ELECTRICAL CHARACTERISTICS

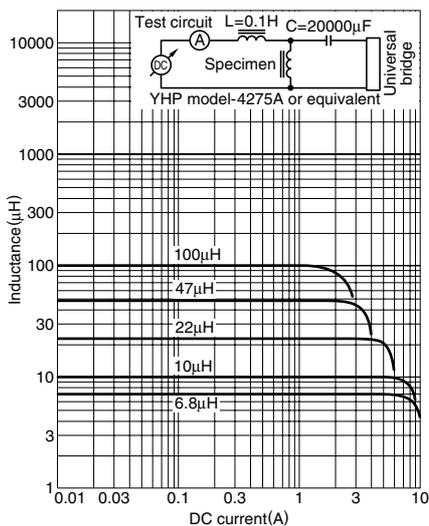
Inductance ( $\mu\text{H}$ )	Inductance tolerance	Test frequency L (kHz)	DC resistance ( $\Omega$ ) $\pm 20\%$	Rated current (A)* max.		Part No.
				Based on inductance change	Based on temperature rise	
1.2	$\pm 30\%$	1	0.0069	13	8.2	SLF12575T-1R2N8R2-PF
2.7	$\pm 30\%$	1	0.0094	10	7	SLF12575T-2R7N7R0-PF
3.9	$\pm 30\%$	1	0.0104	9	6.7	SLF12575T-3R9N6R7-PF
5.6	$\pm 30\%$	1	0.0116	7.8	6.3	SLF12575T-5R6N6R3-PF
6.8	$\pm 30\%$	1	0.0131	7.2	5.9	SLF12575T-6R8N5R9-PF
10	$\pm 20\%$	1	0.0156	5.5	5.4	SLF12575T-100M5R4-PF
15	$\pm 20\%$	1	0.0184	4.7	5	SLF12575T-150M4R7-PF
22	$\pm 20\%$	1	0.0263	4	4	SLF12575T-220M4R0-PF
33	$\pm 20\%$	1	0.0395	3.2	3.4	SLF12575T-330M3R2-PF
47	$\pm 20\%$	1	0.0528	2.7	3	SLF12575T-470M2R7-PF
68	$\pm 20\%$	1	0.0778	2	2.4	SLF12575T-680M2R0-PF
100	$\pm 20\%$	1	0.125	1.9	1.9	SLF12575T-101M1R9-PF
150	$\pm 20\%$	1	0.175	1.5	1.6	SLF12575T-151M1R5-PF
220	$\pm 20\%$	1	0.258	1.3	1.3	SLF12575T-221M1R3-PF

\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 10%, whichever is smaller.

- Test equipment L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP, or equivalent (Measured at 1kHz/0.5V)  
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



• All specifications are subject to change without notice.