# **Inductors**

# For Power Line SMD

# SLF Series SLF10145 Type

#### **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.

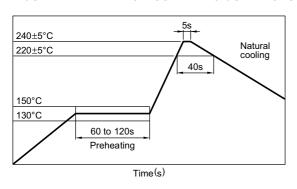
# **APPLICATIONS**

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

# **SPECIFICATIONS**

	Operating temperature	Storage temperature
Type	range	range
	[Including self-temperature rise]	[Unit of products]
SLF6025	–20 to +85°C	–40 to +85°C
SLF6028	–20 to +85°C	–40 to +85°C
SLF7028	–20 to +85°C	–40 to +85°C
SLF7030	–20 to +85°C	–40 to +85°C
SLF7032	–20 to +85°C	–40 to +85°C
SLF7045	–20 to +85°C	–40 to +85°C
SLF10145	–20 to +90°C	–40 to +90°C
SLF12555	–20 to +90°C	–40 to +90°C
SLF12565	–20 to +105°C	-40 to +105°C
SLF12575	–20 to +105°C	-40 to +105°C

# RECOMMENDED REFLOW SOLDERING CONDITIONS



# PRODUCT IDENTIFICATION

 $\frac{\mathsf{SLF}}{(1)} \ \frac{7032}{(2)} \ \frac{\mathsf{T-}}{(3)} \ \frac{220}{(4)} \ \frac{\mathsf{M}}{(5)} \ \frac{\mathsf{R96}}{(6)} \ \frac{\mathsf{-2}}{(7)}$ 

(1) Series name

# (2) Dimensions L×W×T

6025	6.0×6.0×2.5mm
6028	6.0×6.0×2.8mm
7028	7.0×7.0×2.8mm
7030	7.0×7.0×3.0mm
7032	7.0×7.0×3.2mm
7045	7.0×7.0×4.5mm
10145	10.1×10.1×4.5mm
12555	12.5×12.5×5.5mm
12565	12.5×12.5×6.5mm
12575	12.5×12.5×7.5mm

#### (3) Packaging style

Taning(rool)	
I Ianing(reel)	
i iaping(icci)	

#### (4) Inductance value

3R3	3.3μΗ	
100	10μΗ	

## (5) Inductance tolerance

M	±20%
N	±30%

#### (6) Rated current

•		
	1R9	1.9A
	R96	0.96A

# (7) TDK internal code

(Some products may not have this number. See the main body for details.)

#### **PACKAGING STYLE AND QUANTITIES**

Packaging style	Type	Quantity
	, , , , , , , , , , , , , , , , , , ,	
Taping	SLF6025T	1000 pieces/reel
	SLF6028T	1000 pieces/reel
	SLF7028T	1000 pieces/reel
	SLF7030T	1000 pieces/reel
	SLF7032T	1000 pieces/reel
	SLF7045T	1000 pieces/reel
	SLF10145T	500 pieces/reel
	SLF12555T	500 pieces/reel
	SLF12565T	500 pieces/reel
	SLF12575T	500 pieces/reel

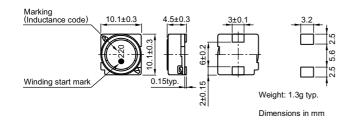


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For Power Line **SMD** 

#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



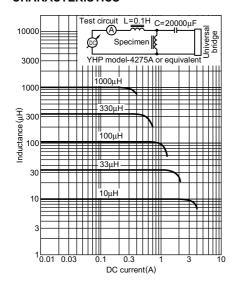


#### **ELECTRICAL CHARACTERISTICS**

lundi cata una a	Inductance tolerance (%)	Test frequency L (kHz)	DC resistance (Ω)±20%	Rated current (A)* max.		
Inductance (µH)				Based on inductance change	Based on temperature rise	Part No.
10	±20	1	0.0364	3	2.5	SLF10145T-100M2R5
15	±20	1	0.0472	2.4	2.2	SLF10145T-150M2R2
22	±20	1	0.0591	2.1	1.9	SLF10145T-220M1R9
33	±20	1	0.0815	1.6	1.7	SLF10145T-330M1R6
47	±20	1	0.1	1.4	1.5	SLF10145T-470M1R4
68	±20	1	0.14	1.2	1.3	SLF10145T-680M1R2
100	±20	1	0.2	1	1.1	SLF10145T-101M1R0
150	±20	1	0.35	0.79	0.81	SLF10145T-151MR79
220	±20	1	0.47	0.65	0.7	SLF10145T-221MR65
330	±20	1	0.68	0.54	0.58	SLF10145T-331MR54
470	±20	1	1.03	0.47	0.47	SLF10145T-471MR47
680	±20	1	1.6	0.38	0.38	SLF10145T-681MR38
1000	±20	1	2.8	0.32	0.29	SLF10145T-102MR29
1500	±20	1	3.4	0.22	0.26	SLF10145T-152MR22

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

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



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