### **Inductors**

## For Power Line SMD

## SLF Series SLF7045 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.

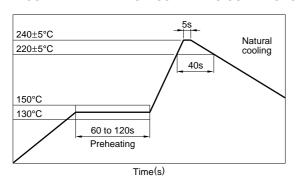
#### **APPLICATIONS**

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
SLF6028 SLF7028 SLF7030 SLF7032 SLF7045 SLF10145 SLF12555 SLF12565	-20 to +85°C -20 to +90°C -20 to +90°C -20 to +105°C	-40 to +85°C -40 to +90°C -40 to +90°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

Taping(reel)	
I Ianing(reel)	-
1 (4)	

#### (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	Туре	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

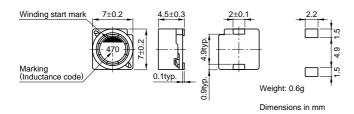


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#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



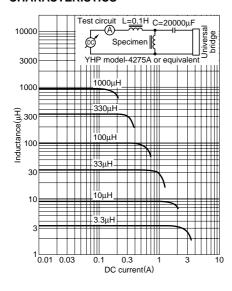


#### **ELECTRICAL CHARACTERISTICS**

la di retena e	la di rata a a a	To at fra average	DC resistance	Rated current(A)* max.		
Inductance (µH)	Inductance tolerance (%)	Test frequency L (kHz)	DC resistance (Ω)±20%	Based on inductance change	Based on temperature rise	Part No.
3.3	±20	1	0.02	2.5	2.3	SLF7045T-3R3M2R5
4.7	±20	1	0.03	2	2.1	SLF7045T-4R7M2R0
6.8	±20	1	0.039	1.7	1.74	SLF7045T-6R8M1R7
10	±20	1	0.036	1.3	1.78	SLF7045T-100M1R3
15	±20	1	0.052	1.1	1.53	SLF7045T-150M1R1
22	±20	1	0.061	0.9	1.34	SLF7045T-220MR90
33	±20	1	0.096	0.82	1.09	SLF7045T-330MR82
47	±20	1	0.125	0.75	0.92	SLF7045T-470MR75
68	±20	1	0.175	0.6	0.77	SLF7045T-680MR60
100	±20	1	0.25	0.5	0.65	SLF7045T-101MR50
150	±20	1	0.34	0.4	0.55	SLF7045T-151MR40
220	±20	1	0.52	0.33	0.45	SLF7045T-221MR33
330	±20	1	0.74	0.25	0.37	SLF7045T-331MR25
470	±20	1	1.05	0.22	0.31	SLF7045T-471MR22
680	±20	1	1.48	0.2	0.27	SLF7045T-681MR20
1000	±20	1	2.28	0.14	0.25	SLF7045T-102MR14

<sup>\*</sup> Rated current: Value obtained when current flows and the temperature has risen to 20°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



531\_SLF7045 990803



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