### **Inductors**

## For Power Line SMD

## SLF Series SLF6028 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.

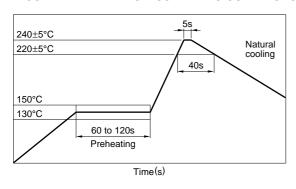
#### **APPLICATIONS**

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

#### **SPECIFICATIONS**

0	perating temperature	Storage temperature	
e ra	ange	range	
[li	ncluding self-temperature rise]	[Unit of products]	
6025 –	20 to +85°C	-40 to +85°C	
6028 –	20 to +85°C	-40 to +85°C	
7028 –	20 to +85°C	–40 to +85°C	
7030 –	20 to +85°C	–40 to +85°C	
7032 –	20 to +85°C	-40 to +85°C	
7045 –	20 to +85°C	-40 to +85°C	
10145 –	20 to +90°C	-40 to +90°C	
12555 –	20 to +90°C	-40 to +90°C	
12565 –	20 to +105°C	-40 to +105°C	
12575 –	20 to +105°C	-40 to +105°C	
76025 — 76028 — 77028 — 77030 — 77032 — 77045 — 712555 — 712565 —	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

#### (4) Inductance value

3R3	3.3μΗ	
100	10μΗ	

#### (5) Inductance tolerance

M	±20%
N	±30%

#### (6) Rated current

1.9A	
0.96A	
	1.9A 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

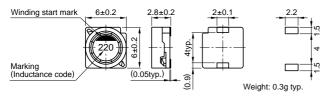


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#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN





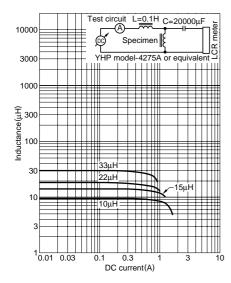
Dimensions in mm

#### **ELECTRICAL CHARACTERISTICS**

Inductance Inductance (µH) tolerance	Industance	Test frequency L (kHz)	DC resistance $(\Omega)\pm20\%$	Rated current (A)*		
				Based on inductance	Based on	Part No.
	tolerance (76)	L (KI IZ)		change	temperature rise	
4.7	±20	1	0.0284	1.6max.	2.5typ.	SLF6028T-4R7M1R6
6.8	±20	1	0.0354	1.5max.	2.2typ.	SLF6028T-6R8M1R5
10	±20	1	0.0532	1.3max.	1.8typ.	SLF6028T-100M1R3
15	±20	1	0.0745	1max.	1.4typ.	SLF6028T-150M1R0
22	±20	1	0.104	0.77max.	1.3typ.	SLF6028T-220MR77
33	±20	1	0.148	0.69max.	1.1typ.	SLF6028T-330MR69
47	±20	1	0.21	0.59max.	0.92typ.	SLF6028T-470MR59
68	±20	1	0.29	0.5max.	0.78typ.	SLF6028T-680MR50
100	±20	1	0.43	0.42max.	0.64typ.	SLF6028T-101MR42

<sup>\*</sup> 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 30%, whichever is smaller.

# TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



531\_SLF6028 990803



Test equipment Inductance: YHP 4194A IMPEDANCE GAIN/PHASE ANALYZER, or equivalent (Test frequency: 1kHz/0.5V)
 Rdc: DIGITAL MILLIOHM METER VP-2941A MATSUSHITA, or equivalent