### **Inductors**

## For Power Line SMD

## SLF Series SLF12575 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.

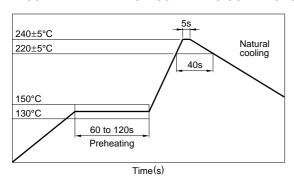
#### **APPLICATIONS**

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

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

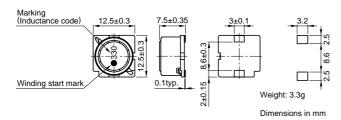


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#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



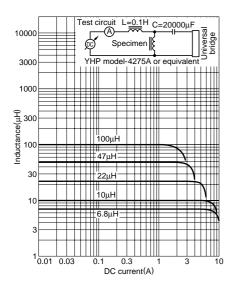


#### **ELECTRICAL CHARACTERISTICS**

Inductance / I I co	Inductance	Test frequency	DC resistance	Rated current (A)* max	۲.	
(µH)	tolerance (%)	L (kHz)	$(\Omega)$ ±20%	Based on inductance change	Based on temperature rise	Part No.
1.2	±30	1	0.0069	13	8.2	SLF12575T-1R2N8R2
2.7	±30	1	0.0094	10	7	SLF12575T-2R7N7R0
3.9	±30	1	0.0104	9	6.7	SLF12575T-3R9N6R7
5.6	±30	1	0.0116	7.8	6.3	SLF12575T-5R6N6R3
6.8	±30	1	0.0131	7.2	5.9	SLF12575T-6R8N5R9
10	±20	1	0.0156	5.5	5.4	SLF12575T-100M5R4
15	±20	1	0.0184	4.7	5	SLF12575T-150M4R7
22	±20	1	0.0263	4	4	SLF12575T-220M4R0
33	±20	1	0.0395	3.2	3.4	SLF12575T-330M3R2
47	±20	1	0.0528	2.7	3	SLF12575T-470M2R7
68	±20	1	0.0778	2	2.4	SLF12575T-680M2R0
100	±20	1	0.125	1.9	1.9	SLF12575T-101M1R9
150	±20	1	0.175	1.5	1.6	SLF12575T-151M1R5
220	±20	1	0.258	1.3	1.3	SLF12575T-221M1R3

<sup>\*</sup> Rated current: Value obtained when current flows and the temperature has risen to 40°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\_SLF12575 990803

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