

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

Conformity to RoHS Directive

## RLF Series RLF12545

This inductor is designed for power circuits that require a low profile, low inductance, and large current, such as those used in notebook PCs. It measures L12.5×W12.8×T4.5mm, about 40% lower in profile than our existing products (the SLF12575 type).

### FEATURES

- With the height at only 4.5mm, and retaining the DC current superimposition characteristic, this inductor reduces DC resistance 20 to 50% lower than our existing products(the SLF12575 type).
- Structural efficiency allows for both a lower profile than, and electrical features equivalent to, our existing devices.
- The low profile makes the inductor particularly optimal for power circuit applications requiring low voltages and large current.
- Completely lead free for both inside of products and terminal electrodes.

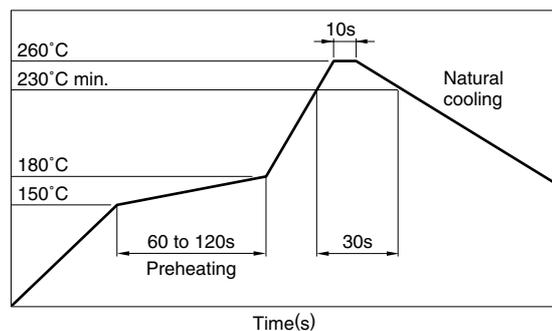
### APPLICATIONS

- Choke coils in power circuit of note book computers, LCD, DVD, STB, PDP, amusement equipments, etc.

### 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

RLF	12545	T	2R7	N	8R7	-	PF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	

(1) Series name

(2) Dimensions

12545	12.5×12.8×4.5mm (L×W×T)
-------	-------------------------

(3) Packaging style

T	Taping(reel)
---	--------------

(4) Inductance value

2R7	2.7μH
100	10μH

(5) Inductance tolerance

M	±20%
N	±30%

(6) Rated current

8R7	8.7A
-----	------

(7)Lead-free compatible product

PF	Lead-free compatible product
----	------------------------------

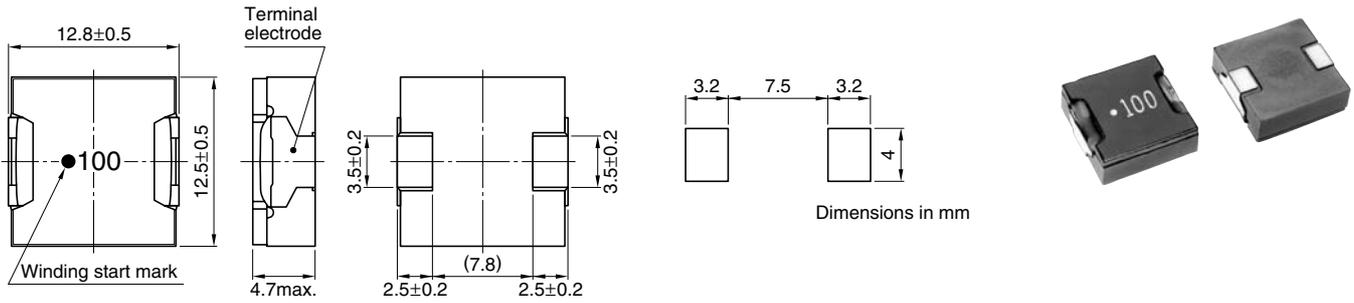
### PACKAGING STYLE AND QUANTITIES

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



## ELECTRICAL CHARACTERISTICS

Inductance ( $\mu\text{H}$ )	Inductance tolerance	Test frequency L (kHz)	DC resistance ( $\text{m}\Omega$ ) $\pm 20\%$	Rated current(A)*max.		Part No.
				Based on inductance change	Based on temperature rise	
1.9	$\pm 30\%$	100	3.6	13	10.5	RLF12545T-1R9N100-PF
2.7	$\pm 30\%$	100	4.5	12	8.7	RLF12545T-2R7N8R7-PF
4.2	$\pm 30\%$	100	7.4	9.5	6.5	RLF12545T-4R2N6R5-PF
5.6	$\pm 30\%$	100	8.5	8	6.1	RLF12545T-5R6N6R1-PF
7.8	$\pm 30\%$	100	10.2	7	5.4	RLF12545T-7R8N5R4-PF
10	$\pm 20\%$	100	12.4	6	5.1	RLF12545T-100M5R1-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 50%, whichever is smaller.

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS

