

# Inductors for Power Circuits

Wound/STD • magnetic shielded

## RLF series

**Type:** **RLF7030 (7.3x6.8 mm)**  
**RLF12545 (12.5x12.8 mm)**  
**RLF12560 (12.5x12.8 mm)**

Issue date: September 2011

- All specifications are subject to change without notice.
- 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.

# Inductors for Power Circuits

## Wound/STD • Magnetic Shielded

Conformity to RoHS Directive

### RLF Series RLF7030

#### FEATURES

- Low profile design
- Mount area: 7.3×6.8mm
- Height: 3.2mm max.
- Be similar series to SLF7032, but this is design exercising low loss and large current characteristic. In comparison with SLF7032, be DC resistance component 80% and rating DC current 2.5 times.
- High magnetic shield construction should actualize high resolution for EMC protection.
- Available for automatic mounting in tape and reel package.
- The products do not contain lead and support lead-free soldering.
- It is a product conforming to RoHS directive.

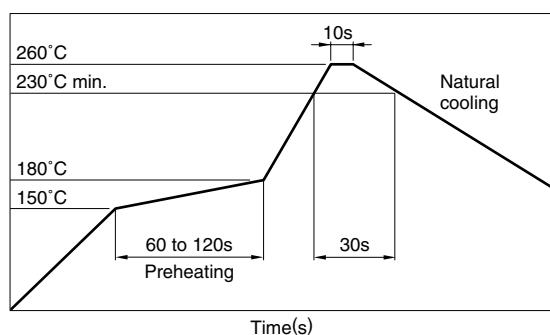
#### APPLICATIONS

Notebook type and mobile computers, amusement equipment, VRMs, automotive equipment, etc.

#### SPECIFICATIONS

Operating temperature range	-40 to +85°C [Including self-temperature rise]
Storage temperature range	-40 to +125°C[Unit of products]

#### RECOMMENDED REFLOW SOLDERING CONDITIONS



#### PRODUCT IDENTIFICATION

RLF 7030 T- 1R0 N 6R4  
(1) (2) (3) (4) (5) (6)

(1) Series name

(2) Dimensions

7030 7.3x6.8x3.2 (L×W×T)

(3) Packaging style

T Taping(reel)

(4) Inductance value

1R0 1μH  
6R8 6.8μH

(5) Inductance tolerance

M ±20%  
N ±30%

(6) Rated current

6R4 6.4A  
2R8 2.8A

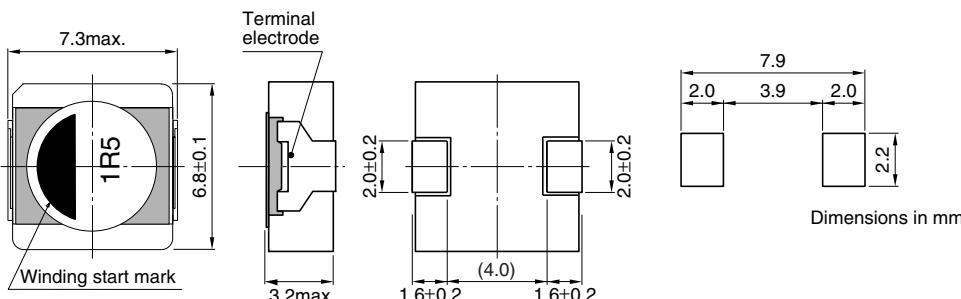
#### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	1000 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

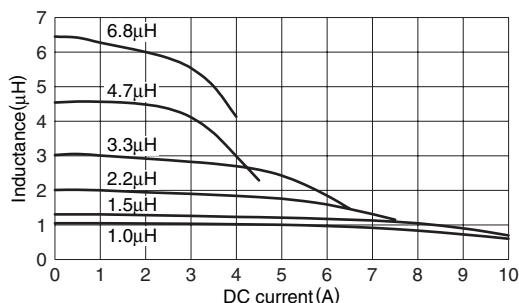


## ELECTRICAL CHARACTERISTICS

Inductance ( $\mu$ H)	Inductance tolerance	Test frequency L (kHz)	DC resistance (m $\Omega$ )	Rated current(A)*max. Based on inductance change	Based on temperature rise	Part No.
1	$\pm 30\%$	100	8.8 max.(7.3 typ.)	7.9	6.4	RLF7030T-1R0N6R4
1.5	$\pm 30\%$	100	9.6 max.(8.0 typ.)	6.5	6.1	RLF7030T-1R5N6R1
2.2	$\pm 20\%$	100	12 max. (10 typ.)	5.5	5.4	RLF7030T-2R2M5R4
3.3	$\pm 20\%$	100	20 max. (17.4 typ.)	4.4	4.1	RLF7030T-3R3M4R1
4.7	$\pm 20\%$	100	31 max. (26 typ.)	3.5	3.4	RLF7030T-4R7M3R4
6.8	$\pm 20\%$	100	45 max. (37.3 typ.)	3.0	2.8	RLF7030T-6R8M2R8

\* 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 30%, whichever is smaller.

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



# Inductors for Power Circuits

## Wound/STD • 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.

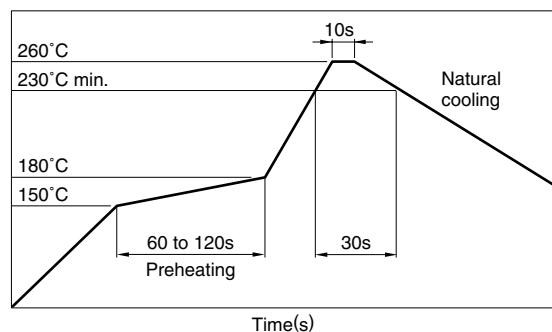
#### APPLICATIONS

- Choke coils in power circuit of note book computers, LCD, DVD, STB, PDP, amusement equipment, 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)
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(3) Packaging style

T	Taping(reel)
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(4) Inductance value

2R7	2.7μH
100	10μH

(5) Inductance tolerance

M	±20%
N	±30%

(6) Rated current

8R7	8.7A
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(7) Lead-free compatible product

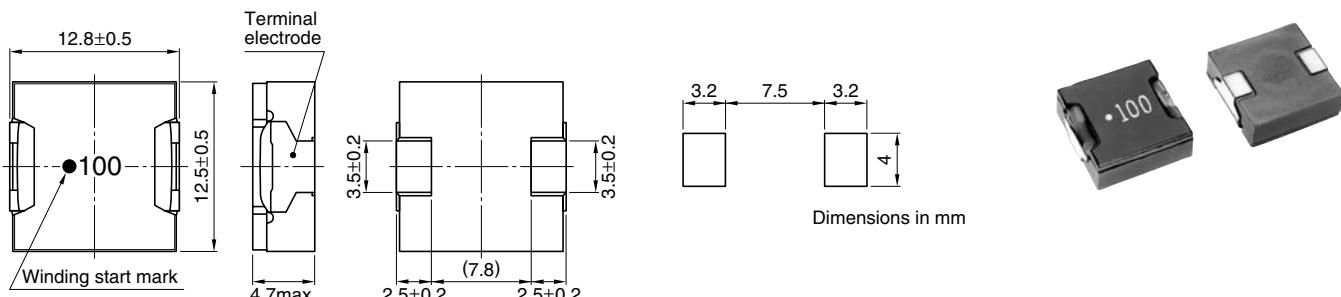
PF	Lead-free compatible product
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#### PACKAGING STYLE AND QUANTITIES

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

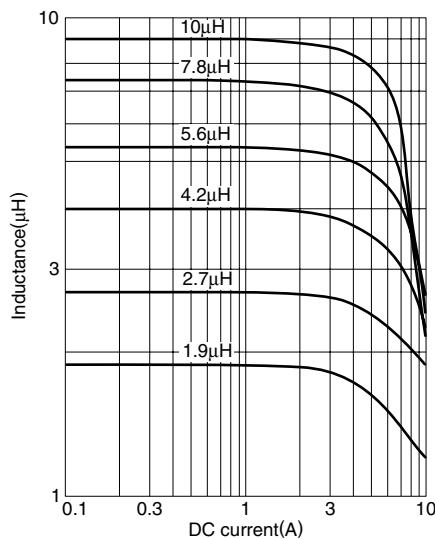


## ELECTRICAL CHARACTERISTICS

Inductance ( $\mu$ H)	Inductance tolerance	Test frequency L (kHz)	DC resistance (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

# Inductors for Power Circuits

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Conformity to RoHS Directive

### RLF Series RLF12560

Accompanying large current power supplies, these inductors have secured efficient characteristics by improving its magnetic circuit based on existing products. These products meet resistance reducing and current enlargement.

#### FEATURES

- Comparing with existing products(RLF12545), DC current superimposition characteristic has improved. Especially, inductance rises about 10% in spite of high temperature at 100°C. In addition, inductance has risen about 30% at normal temperature.
- Using flat-square wire for winding, that is rising space factor, these inductors can reduce current resistance and suppress calorific value.
- Forming internal gap, their structure suppress outgoing magnetic flux leakage.
- Completely Pb free for both inside of products and terminal electrodes.

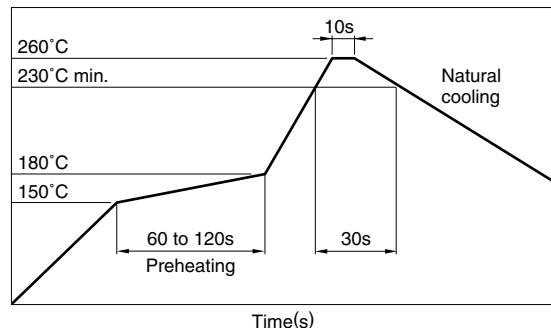
#### APPLICATIONS

- Choke coils in power circuit of note book computers, LCD, DVD, STB, PDP, amusement equipment, 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 12560 T- 1R0 N 140  
(1) (2) (3) (4) (5) (6)

(1) Series name

(2) Dimensions

12560 12.5×12.8×6.0mm (L×W×T)

(3) Packaging style

T Taping(reel)

(4) Inductance value

1R0 1μH  
100 10μH

(5) Inductance tolerance

M ±20%  
N ±30%

(6) Rated current

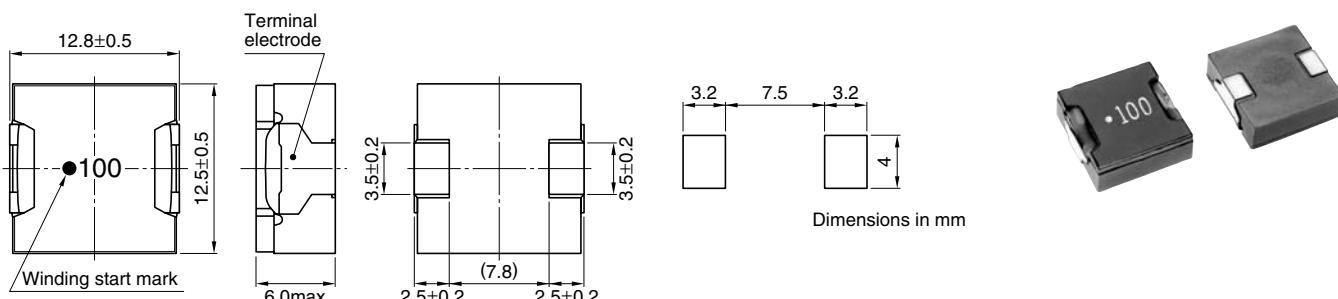
8R2 8.2A  
140 14.4A

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



## ELECTRICAL CHARACTERISTICS

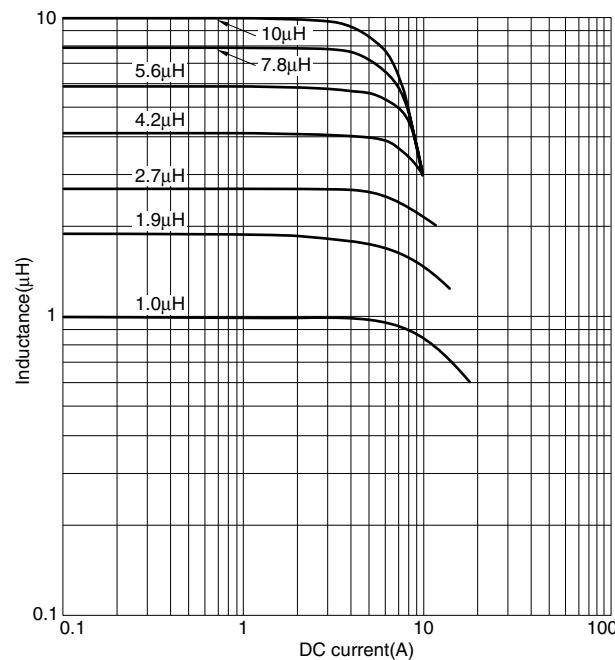
Inductance ( $\mu$ H)	Inductance tolerance	Test frequency L (kHz)	DC resistance (m $\Omega$ ) $\pm$ 20%	Rated current(A)*max.		Part No.
				Based on inductance change	Based on temperature rise	
1.0	$\pm$ 30%	100	2.8	18.5	14.4	RLF12560T-1R0N140
1.9	$\pm$ 30%	100	3.6	15.6	12.7	RLF12560T-1R9N120
2.7	$\pm$ 30%	100	4.5	14.4	11.5	RLF12560T-2R7N110
4.2	$\pm$ 30%	100	7.4	10.2	10.0	RLF12560T-4R2N100
5.6	$\pm$ 30%	100	8.5	9.7	9.2	RLF12560T-5R6N9R2
7.8	$\pm$ 30%	100	10.2	8.2	8.4	RLF12560T-7R8N8R2
10	$\pm$ 20%	100	12.4	7.5	7.8	RLF12560T-100M7R5

\* 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





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

#### Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помошь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помошь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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