Inductors

For Power Line
SMD

RLF Series RLF5018 Type

This inductor is designed for power circuits that require a low profile, low inductance, and high current, such as those used in compact portable equipments.

FEATURES

- RLF5018 type has been developed to expand the RLF series by acquiring a more compact and low-profile type. Its low resistance feature contributes to power saving of portable devices (long-time driving of batteries).
- This inductor has a structural design for an automated production line, capable of responding to the requirements in delivery dates and prices.
- This product is a compact and low-profile type by adopting an optimum structural design of a core shape on a magnetic circuit. A rectangular wire is applied to increase a rate of wiring area for a low resistance and a large current.
- This product can be delivered with embossed carrier taping so as to be available for the reflow soldering.
- Completely lead-free product.

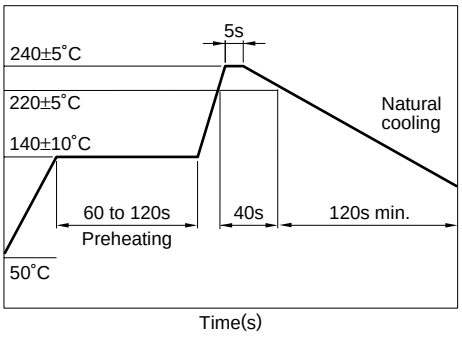
APPLICATIONS

DVCs, DSCs, MD players, portable terminals, mobile telephones, HDDs, MP3 players, etc.

SPECIFICATIONS

Type	Operating temperature range [Including self-temperature rise]	Storage temperature range [Unit of products]
RLF5018	–40 to +105°C	–40 to +105°C

RECOMMENDED REFLOW SOLDERING CONDITIONS



PRODUCT IDENTIFICATIONS

RLF	5018	T-	100	M	R94
(1)	(2)	(3)	(4)	(5)	(6)

(1) Series name

(2) Dimensions

(3) Packaging style

T	Taping(reel)

(4) Inductance value

4R7	4.7µH
100	10µH

(5) Inductance tolerance

M	±20%

(6) Rated current

R94	0.94A
1R4	1.4A

PACKAGING STYLE AND QUANTITIES

Packaging style	Type	Quantity
Taping	RLF5018T	1000 pieces/reel

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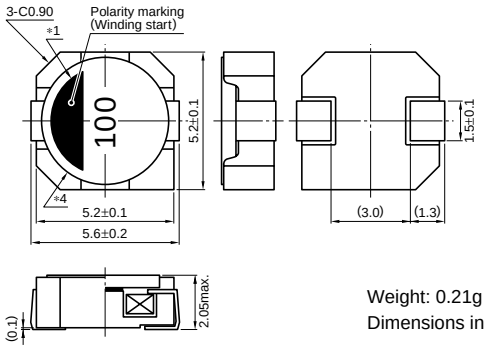
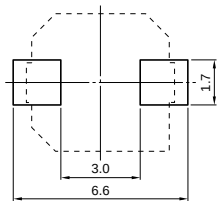
SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN





Dimensions in mm

Weight: 0.21g
Dimensions in mm

ELECTRICAL CHARACTERISTICS

Inductance (μH)	Inductance tolerance(%)	Test frequency L (kHz)	DC resistance(mΩ)		Rated current(A)*		Part No.
			max.	typ.	Based on inductance change	Based on temperature rise	
1.5	±20	100	25	20	2.4 max.	2.1 typ.	RLF5018T-1R5M2R1
2.7	±20	100	33	27	1.8 max.	1.8 typ.	RLF5018T-2R7M1R8
3.9	±20	100	40	32	1.5 max.	1.7 typ.	RLF5018T-3R9M1R5
4.7	±20	100	45	37	1.4 max.	1.6 typ.	RLF5018T-4R7M1R4
6.8	±20	100	56	47	1.1 max.	1.4 typ.	RLF5018T-6R8M1R1
10	±20	100	67	56	0.94 max.	1.3 typ.	RLF5018T-100MR94
15	±20	100	120	97	0.76 max.	1 typ.	RLF5018T-150MR76
22	±20	100	160	130	0.63 max.	0.86 typ.	RLF5018T-220MR63
33	±20	100	250	210	0.51 max.	0.68 typ.	RLF5018T-330MR51

* 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.

- Test equipment Inductance: IMPEDANCE GAIN/PHASE ANALYZER 4194A, or equivalent
  DC resistance: MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

TYPICAL ELECTRICAL CHARCTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS