

# SMD Inductors(Coils)

## For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

### SLF Series SLF6028

#### 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.

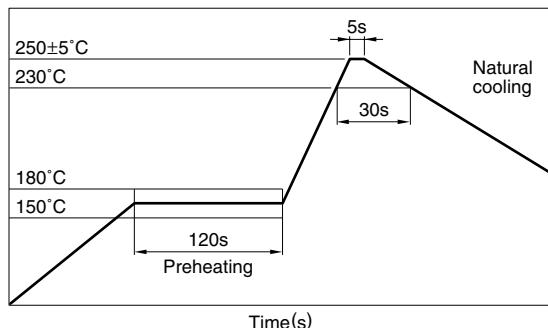
#### APPLICATIONS

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

#### SPECIFICATIONS

|                             |   |
|-----------------------------|---|
| Operating temperature range | -20 to +85°C<br>[Including self-temperature rise] |
| Storage temperature range   | -40 to +85°C [Unit of products]                   |

#### RECOMMENDED REFLOW SOLDERING CONDITIONS



#### PRODUCT IDENTIFICATION

SLF 6028 T- 4R7 M 1R6 - PF  
(1) (2) (3) (4) (5) (6) (7)

(1) Series name

(2) Dimensions

6028 6.0×6.0×2.8mm (L×W×T)

(3) Packaging style

T Taping(reel)

(4) Inductance value

|     |       |
|-----|-------|
| 4R7 | 4.7μH |
| 100 | 10μH  |

(5) Inductance tolerance

M ±20%

(6) Rated current

|     |       |
|-----|-------|
| 1R6 | 1.6A  |
| R77 | 0.77A |

(7) Lead-free compatible product

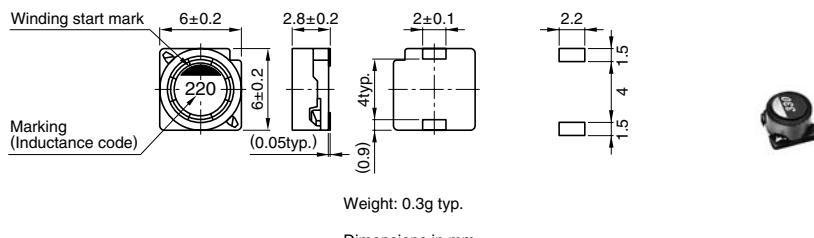
PF Lead-free compatible product

#### 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<br>( $\mu$ H) | Inductance<br>tolerance | Test frequency<br>L (kHz) | DC resistance<br>( $\Omega$ ) $\pm$ 20% | Rated current (A)*            |                              | Part No.            |
|--------------------------|-------------------------|---------------------------|---|-------------------------------|------------------------------|---------------------|
|                          |                         |                           |   | Based on inductance<br>change | Based on<br>temperature rise |                     |
| 4.7                      | $\pm$ 20%               | 100                       | 0.0284                                  | 1.6max.                       | 2.5typ.                      | SLF6028T-4R7M1R6-PF |
| 6.8                      | $\pm$ 20%               | 100                       | 0.0354                                  | 1.5max.                       | 2.2typ.                      | SLF6028T-6R8M1R5-PF |
| 10                       | $\pm$ 20%               | 100                       | 0.0532                                  | 1.3max.                       | 1.8typ.                      | SLF6028T-100M1R3-PF |
| 15                       | $\pm$ 20%               | 100                       | 0.0745                                  | 1max.                         | 1.4typ.                      | SLF6028T-150M1R0-PF |
| 22                       | $\pm$ 20%               | 100                       | 0.104                                   | 0.77max.                      | 1.3typ.                      | SLF6028T-220MR77-PF |
| 33                       | $\pm$ 20%               | 100                       | 0.148                                   | 0.69max.                      | 1.1typ.                      | SLF6028T-330MR69-PF |
| 47                       | $\pm$ 20%               | 100                       | 0.21                                    | 0.59max.                      | 0.92typ.                     | SLF6028T-470MR59-PF |
| 68                       | $\pm$ 20%               | 100                       | 0.29                                    | 0.5max.                       | 0.78typ.                     | SLF6028T-680MR50-PF |
| 100                      | $\pm$ 20%               | 100                       | 0.43                                    | 0.42max.                      | 0.64typ.                     | SLF6028T-101MR42-PF |
| 150                      | $\pm$ 20%               | 100                       | 0.65                                    | 0.34max.                      | 0.5typ.                      | SLF6028T-151MR34-PF |
| 220                      | $\pm$ 20%               | 100                       | 0.98                                    | 0.26max.                      | 0.38typ.                     | SLF6028T-221MR26-PF |

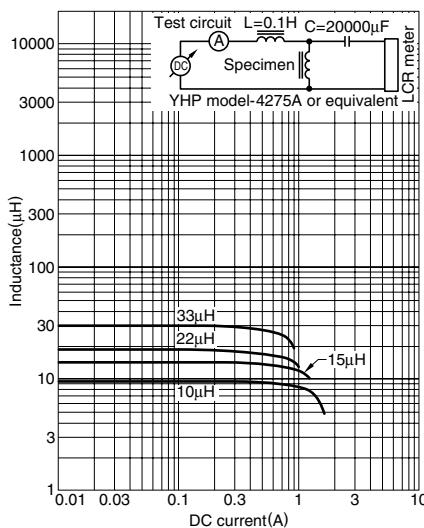
\* Rated current: Value obtained when current flows and the temperature has risen to 25°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

• Test equipment L: 4194A IMPEDANCE/GAIN-PHASE ANALYZER HP, or equivalent (Test frequency: 100kHz/0.5V)  
Rdc: DIGITAL MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

## TYPICAL ELECTRICAL CHARACTERISTICS

## INDUCTANCE CHANGE vs. DC SUPERPOSITION

## CHARACTERISTICS



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