

Inductors

For Power Line

SMD

SLF Series SLF6028 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.

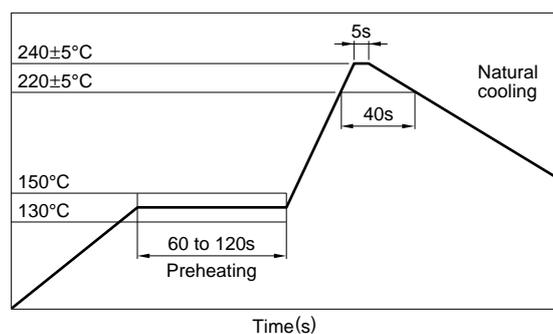
APPLICATIONS

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

SPECIFICATIONS

| Type | Operating temperature range [Including self-temperature rise] | Storage temperature range [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

| SLF | 7032 | T | 220 | M | R96 | -2 |
|-----|------|-----|-----|-----|-----|-----|
| (1) | (2) | (3) | (4) | (5) | (6) | (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

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

(4) Inductance value

| | |
|-----|-------|
| 3R3 | 3.3μH |
| 100 | 10μH |

(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 | Type | 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 |

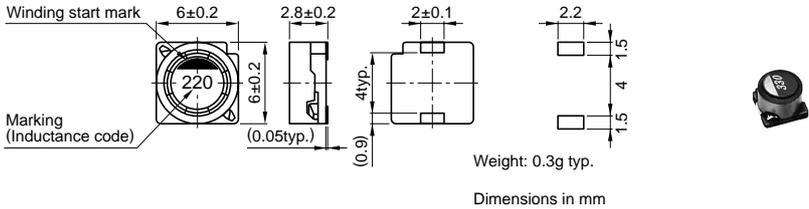
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SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

| Inductance (μH) | Inductance tolerance (%) | Test frequency L (kHz) | DC resistance (Ω)±20% | Rated current (A)* | | Part No. |
|-----------------|--------------------------|------------------------|-----------------------|----------------------------|---------------------------|------------------|
| | | | | Based on inductance change | Based on temperature rise | |
| 4.7 | ±20 | 1 | 0.0284 | 1.6max. | 2.5typ. | SLF6028T-4R7M1R6 |
| 6.8 | ±20 | 1 | 0.0354 | 1.5max. | 2.2typ. | SLF6028T-6R8M1R5 |
| 10 | ±20 | 1 | 0.0532 | 1.3max. | 1.8typ. | SLF6028T-100M1R3 |
| 15 | ±20 | 1 | 0.0745 | 1max. | 1.4typ. | SLF6028T-150M1R0 |
| 22 | ±20 | 1 | 0.104 | 0.77max. | 1.3typ. | SLF6028T-220MR77 |
| 33 | ±20 | 1 | 0.148 | 0.69max. | 1.1typ. | SLF6028T-330MR69 |
| 47 | ±20 | 1 | 0.21 | 0.59max. | 0.92typ. | SLF6028T-470MR59 |
| 68 | ±20 | 1 | 0.29 | 0.5max. | 0.78typ. | SLF6028T-680MR50 |
| 100 | ±20 | 1 | 0.43 | 0.42max. | 0.64typ. | SLF6028T-101MR42 |

* 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: YHP 4194A IMPEDANCE GAIN/PHASE ANALYZER, or equivalent (Test frequency: 1kHz/0.5V)
 Rdc: DIGITAL MILLIOHM METER VP-2941A MATSUSHITA, or equivalent

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS

