# Inductors

For Power Line
SMD

## SLF Series SLF12575 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.

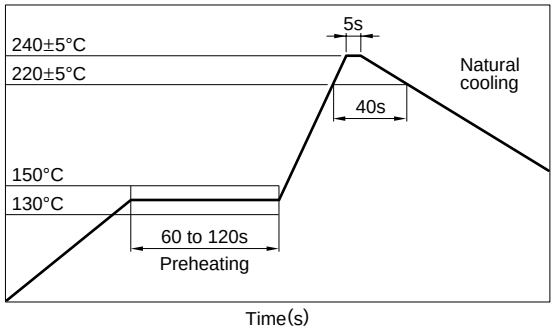
### APPLICATIONS

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 |

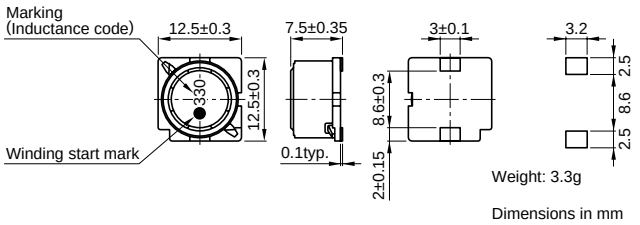
⚠ Specifications which provide more details for the proper and safe use of the described product are available upon request.
All specifications are subject to change without notice.

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### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN







### ELECTRICAL CHARACTERISTICS

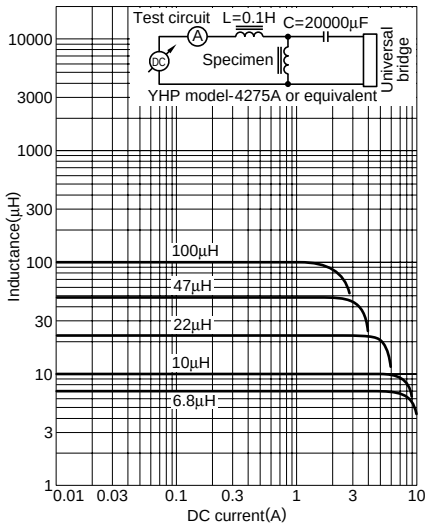
| Inductance (µH) | Inductance tolerance (%) | Test frequency L (kHz) | DC resistance (Ω)±20% | Rated current (A)* max. | | Part No. |
|---|---|---|---|---|---|---|
| | | | | Based on inductance change | Based on temperature rise | |
| 1.2 | ±30 | 1 | 0.0069 | 13 | 8.2 | SLF12575T-1R2N8R2 |
| 2.7 | ±30 | 1 | 0.0094 | 10 | 7 | SLF12575T-2R7N7R0 |
| 3.9 | ±30 | 1 | 0.0104 | 9 | 6.7 | SLF12575T-3R9N6R7 |
| 5.6 | ±30 | 1 | 0.0116 | 7.8 | 6.3 | SLF12575T-5R6N6R3 |
| 6.8 | ±30 | 1 | 0.0131 | 7.2 | 5.9 | SLF12575T-6R8N5R9 |
| 10 | ±20 | 1 | 0.0156 | 5.5 | 5.4 | SLF12575T-100M5R4 |
| 15 | ±20 | 1 | 0.0184 | 4.7 | 5 | SLF12575T-150M4R7 |
| 22 | ±20 | 1 | 0.0263 | 4 | 4 | SLF12575T-220M4R0 |
| 33 | ±20 | 1 | 0.0395 | 3.2 | 3.4 | SLF12575T-330M3R2 |
| 47 | ±20 | 1 | 0.0528 | 2.7 | 3 | SLF12575T-470M2R7 |
| 68 | ±20 | 1 | 0.0778 | 2 | 2.4 | SLF12575T-680M2R0 |
| 100 | ±20 | 1 | 0.125 | 1.9 | 1.9 | SLF12575T-101M1R9 |
| 150 | ±20 | 1 | 0.175 | 1.5 | 1.6 | SLF12575T-151M1R5 |
| 220 | ±20 | 1 | 0.258 | 1.3 | 1.3 | SLF12575T-221M1R3 |

* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

• Test equipment L:YHP 4194A IMPEDANCE GAIN/PHASE ANALYZER, or equivalent (Measured at 1kHz/0.5V)
Rdc:MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent

### TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS






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TDK