### **Inductors**

## For Power Line SMD

## SLF Series SLF12565 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.

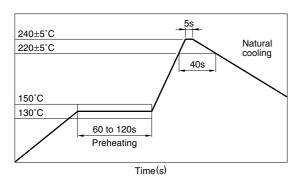
#### **APPLICATIONS**

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

#### **SPECIFICATIONS**

| 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

| SLF 12565 |  | T-  | 220 | М   | 3R5 | -2  |
|-----------|--|-----|-----|-----|-----|-----|
| (1) (2)   |  | (3) | (4) | (5) | (6) | (7) |

- (1) Series name
- (2) Dimensions L×W×T

(3) Packaging style

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

(4) Inductance value

| 2R0 | 2μΗ  |  |
|-----|------|--|
| 100 | 10uH |  |

(5) Inductance tolerance

| М | ±20% |  |
|---|------|--|
| N | ±30% |  |

(6) Rated current

| (-) |      |  |
|-----|------|--|
| 1R6 | 1.6A |  |
| 3R5 | 3.5A |  |

(7) TDK internal code

(Some products may not have this number. See the main body for details.)

#### **PACKAGING STYLE AND QUANTITIES**

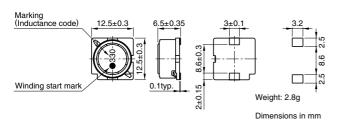
| Packaging style | Quantity        |
|-----------------|-----------------|
| Taping          | 500 pieces/reel |

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



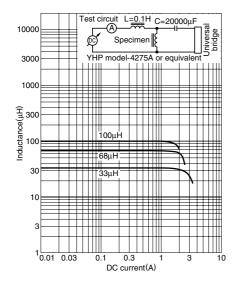


#### **ELECTRICAL CHARACTERISTICS**

| Inductance | Inductance    | Toot from your av         | DC resistance     | Rated current (A)* ma      | х.                        |                   |
|------------|---------------|---------------------------|-------------------|----------------------------|---------------------------|-------------------|
| (μH)       | tolerance (%) | Test frequency<br>L (kHz) | $(\Omega)\pm20\%$ | Based on inductance change | Based on temperature rise | Part No.          |
| 2          | ±30           | 1                         | 0.0117            | 10                         | 6.2                       | SLF12565T-2R0N6R2 |
| 4.2        | ±30           | 1                         | 0.015             | 7.3                        | 5.5                       | SLF12565T-4R2N5R5 |
| 7          | ±30           | 1                         | 0.0177            | 5.7                        | 5                         | SLF12565T-7R0N5R0 |
| 10         | ±20           | 1                         | 0.0202            | 5                          | 4.8                       | SLF12565T-100M4R8 |
| 15         | ±20           | 1                         | 0.0237            | 4.2                        | 4.4                       | SLF12565T-150M4R2 |
| 22         | ±20           | 1                         | 0.0316            | 3.5                        | 3.8                       | SLF12565T-220M3R5 |
| 33         | ±20           | 1                         | 0.0406            | 2.8                        | 3.4                       | SLF12565T-330M2R8 |
| 47         | ±20           | 1                         | 0.0578            | 2.4                        | 2.8                       | SLF12565T-470M2R4 |
| 68         | ±20           | 1                         | 0.0787            | 2                          | 2.4                       | SLF12565T-680M2R0 |
| 100        | ±20           | 1                         | 0.123             | 1.6                        | 1.9                       | SLF12565T-101M1R6 |
| 220        | ±20           | 1                         | 0.273             | 1                          | 1.2                       | SLF12565T-221M1R0 |

<sup>\*</sup> 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.

# TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS





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