Inductors

For Power Line SMD

SLF Series SLF10145 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.

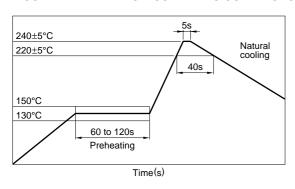
APPLICATIONS

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

SPECIFICATIONS

| 0 | perating temperature | Storage temperature |
|--|---|--|
| e ra | ange | range |
| [li | ncluding self-temperature rise] | [Unit of products] |
| 6025 – | 20 to +85°C | -40 to +85°C |
| 6028 – | 20 to +85°C | -40 to +85°C |
| 7028 – | 20 to +85°C | –40 to +85°C |
| 7030 – | 20 to +85°C | –40 to +85°C |
| 7032 – | 20 to +85°C | -40 to +85°C |
| 7045 – | 20 to +85°C | -40 to +85°C |
| 10145 – | 20 to +90°C | -40 to +90°C |
| 12555 – | 20 to +90°C | -40 to +90°C |
| 12565 – | 20 to +105°C | -40 to +105°C |
| 12575 – | 20 to +105°C | -40 to +105°C |
| 76025 — 76028 — 77028 — 77030 — 77032 — 77045 — 712555 — 712565 — | 20 to +85°C 20 to +90°C 20 to +90°C 20 to +105°C | -40 to +85°C -40 to +90°C -40 to +90°C -40 to +105°C |

RECOMMENDED REFLOW SOLDERING CONDITIONS



PRODUCT IDENTIFICATION

 $\frac{\mathsf{SLF}}{(1)} \ \frac{7032}{(2)} \ \frac{\mathsf{T-}}{(3)} \ \frac{220}{(4)} \ \frac{\mathsf{M}}{(5)} \ \frac{\mathsf{R96}}{(6)} \ \frac{\mathsf{-2}}{(7)}$

(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

| Taping(reel) | |
|----------------|---|
| I Ianing(reel) | - |
| | |
| 1 (4) | |

(4) Inductance value

| 3R3 | 3.3μΗ | |
|-----|-------|--|
| 100 | 10μΗ | |

(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

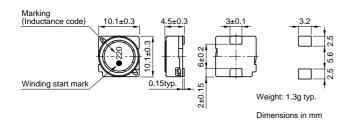
| Packaging style | Туре | Quantity |
|-----------------|-----------|------------------|
| Taping | SLF6025T | 1000 pieces/reel |
| | SLF6028T | 1000 pieces/reel |
| | SLF7028T | 1000 pieces/reel |
| | SLF7030T | 1000 pieces/reel |
| | SLF7032T | 1000 pieces/reel |
| | SLF7045T | 1000 pieces/reel |
| | SLF10145T | 500 pieces/reel |
| | SLF12555T | 500 pieces/reel |
| | SLF12565T | 500 pieces/reel |
| | SLF12575T | 500 pieces/reel |

Inductors

SLF Series SLF10145 Type

For Power Line **SMD**

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



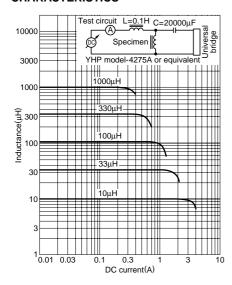


ELECTRICAL CHARACTERISTICS

| la di rata a a a | la di rata a a a | Took for any an any | DC resistance | Rated current (A)* max. | | |
|--------------------|-----------------------------|---------------------------|-----------------------|----------------------------|---------------------------|-------------------|
| Inductance (µH) | Inductance tolerance (%) | Test frequency L (kHz) | DC resistance (Ω)±20% | Based on inductance change | Based on temperature rise | Part No. |
| 10 | ±20 | 1 | 0.0364 | 3 | 2.5 | SLF10145T-100M2R5 |
| 15 | ±20 | 1 | 0.0472 | 2.4 | 2.2 | SLF10145T-150M2R2 |
| 22 | ±20 | 1 | 0.0591 | 2.1 | 1.9 | SLF10145T-220M1R9 |
| 33 | ±20 | 1 | 0.0815 | 1.6 | 1.7 | SLF10145T-330M1R6 |
| 47 | ±20 | 1 | 0.1 | 1.4 | 1.5 | SLF10145T-470M1R4 |
| 68 | ±20 | 1 | 0.14 | 1.2 | 1.3 | SLF10145T-680M1R2 |
| 100 | ±20 | 1 | 0.2 | 1 | 1.1 | SLF10145T-101M1R0 |
| 150 | ±20 | 1 | 0.35 | 0.79 | 0.81 | SLF10145T-151MR79 |
| 220 | ±20 | 1 | 0.47 | 0.65 | 0.7 | SLF10145T-221MR65 |
| 330 | ±20 | 1 | 0.68 | 0.54 | 0.58 | SLF10145T-331MR54 |
| 470 | ±20 | 1 | 1.03 | 0.47 | 0.47 | SLF10145T-471MR47 |
| 680 | ±20 | 1 | 1.6 | 0.38 | 0.38 | SLF10145T-681MR38 |
| 1000 | ±20 | 1 | 2.8 | 0.32 | 0.29 | SLF10145T-102MR29 |
| 1500 | ±20 | 1 | 3.4 | 0.22 | 0.26 | SLF10145T-152MR22 |

^{*} Rated current: Value obtained when current flows and the temperature has risen to 30°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



531_SLF10145

990803



[•] 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