

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## VLF Series VLF10045

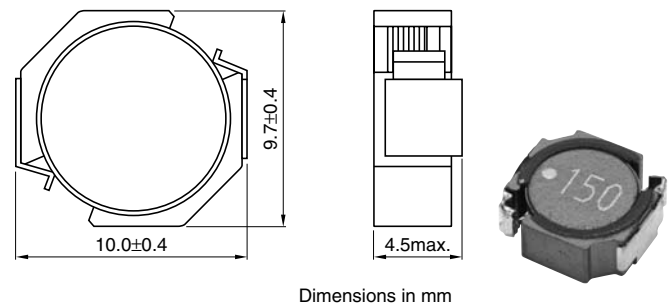
### FEATURES

- Mount area: 9.7×10.0mm  
Low profile: 4.5mm max. height
- Compare to SLF10145(TDK conventional product) type  
Low loss and large current capability design  
DC resistance: 0.89×SLF10145  
Rated DC current: 1.47×SLF10145
- Generic use for DC to DC converter line.
- High magnetic shield construction should actualize high resolution for EMC protection.
- Available for automatic mounting in tape and reel package.
- The products contain no lead and also support lead-free soldering.
- It is a product conforming to RoHS directive.

### APPLICATIONS

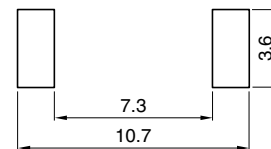
Note book computers, amusement equipment, DVD players, VRMs, plasma displays, etc.

### SHAPES AND DIMENSIONS



Dimensions in mm

### RECOMMENDED PC BOARD PATTERN



Dimensions in mm

### ELECTRICAL CHARACTERISTICS

| Part No.          | Inductance (μH) | Inductance tolerance(%) | Test frequency (kHz) | DC resistance(mΩ) |      | Rated current(A)*               |                                |
|-------------------|-----------------|-------------------------|----------------------|-------------------|------|---------------------------------|--------------------------------|
|                   |                 |                         |                      | max.              | typ. | Based on inductance change max. | Based on temperature rise typ. |
| VLF10045T-1R0N100 | 1.0             | ±30                     | 100                  | 5.5               | 4.6  | 13.5                            | 10                             |
| VLF10045T-1R5N9R0 | 1.5             | ±30                     | 100                  | 6.8               | 5.7  | 11.1                            | 9                              |
| VLF10045T-2R2N7R4 | 2.2             | ±30                     | 100                  | 10.2              | 8.5  | 9.1                             | 7.4                            |
| VLF10045T-3R3N6R9 | 3.3             | ±30                     | 100                  | 11.6              | 9.7  | 7.5                             | 6.9                            |
| VLF10045T-4R7N6R1 | 4.7             | ±30                     | 100                  | 15                | 12.5 | 6.3                             | 6.1                            |
| VLF10045T-6R8N5R1 | 6.8             | ±30                     | 100                  | 21.4              | 17.8 | 5.2                             | 5.1                            |
| VLF10045T-100M4R3 | 10              | ±20                     | 100                  | 29                | 25.0 | 4.3                             | 4.3                            |
| VLF10045T-150M3R5 | 15              | ±20                     | 100                  | 43                | 37.3 | 3.5                             | 3.5                            |
| VLF10045T-220M2R8 | 22              | ±20                     | 100                  | 57                | 49.5 | 2.8                             | 3.0                            |
| VLF10045T-330M2R3 | 33              | ±20                     | 100                  | 81                | 70.1 | 2.3                             | 2.6                            |
| VLF10045T-470M1R9 | 47              | ±20                     | 100                  | 112               | 97.6 | 1.9                             | 2.2                            |
| VLF10045T-680M1R6 | 68              | ±20                     | 100                  | 182               | 158  | 1.6                             | 1.7                            |
| VLF10045T-101M1R3 | 100             | ±20                     | 100                  | 250               | 217  | 1.3                             | 1.4                            |
| VLF10045T-151M1R1 | 150             | ±20                     | 100                  | 352               | 306  | 1.1                             | 1.2                            |
| VLF10045T-221MR90 | 220             | ±20                     | 100                  | 499               | 434  | 0.9                             | 1.0                            |
| VLF10045T-331MR70 | 330             | ±20                     | 100                  | 829               | 721  | 0.7                             | 0.8                            |

\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

- Operating temperature range: -40 to +105°C (Including self-temperature rise)

• 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.