**Conformity to RoHS Directive** 

**会TDK** 

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

### VLF Series VLF10045

#### FEATURES

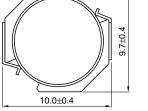
- Mount area: 9.7×10.0mm
  Low profile: 4.5mm max. height
- Compare to SLF10145(TDK conventional product) type Low loss and large current capability design DC resistance: 0.89×SLF10145 Rated DC current: 1.47×SLF10145
- · Generic use for DC to DC converter line.
- High magnetic shield construction should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

**ELECTRICAL CHARACTERISTICS** 

#### APPLICATIONS

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

# SHAPES AND DIMENSIONS



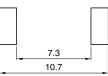


Dimensions in mm

4.5max

#### RECOMMENDED PC BOARD PATTERN

3.6



Dimensions in mm

Inductorso	Inductorio	Toot frequency	DC resistance(mΩ)		Rated current(A)*	
(μH)	tolerance(%)	(kHz)	max.	typ.	Based on inductance change max.	Based on temperature rise typ.
1.0	±30	100	5.5	4.6	13.5	10
1.5	±30	100	6.8	5.7	11.1	9
2.2	±30	100	10.2	8.5	9.1	7.4
3.3	±30	100	11.6	9.7	7.5	6.9
4.7	±30	100	15	12.5	6.3	6.1
6.8	±30	100	21.4	17.8	5.2	5.1
10	±20	100	29	25.0	4.3	4.3
15	±20	100	43	37.3	3.5	3.5
22	±20	100	57	49.5	2.8	3.0
33	±20	100	81	70.1	2.3	2.6
47	±20	100	112	97.6	1.9	2.2
68	±20	100	182	158	1.6	1.7
100	±20	100	250	217	1.3	1.4
150	±20	100	352	306	1.1	1.2
220	±20	100	499	434	0.9	1.0
330	±20	100	829	721	0.7	0.8
	1.0        1.5        2.2        3.3        4.7        6.8        10        15        22        33        47        68        100        150        220	$(\mu H)$ tolerance(%)1.0 $\pm 30$ 1.5 $\pm 30$ 2.2 $\pm 30$ 3.3 $\pm 30$ 4.7 $\pm 30$ 6.8 $\pm 30$ 10 $\pm 20$ 15 $\pm 20$ 22 $\pm 20$ 33 $\pm 20$ 47 $\pm 20$ 68 $\pm 20$ 100 $\pm 20$ 150 $\pm 20$ 220 $\pm 20$	$(\mu H)$ tolerance(%) $(kHz)$ 1.0 $\pm 30$ 1001.5 $\pm 30$ 1002.2 $\pm 30$ 1003.3 $\pm 30$ 1004.7 $\pm 30$ 1006.8 $\pm 30$ 10010 $\pm 20$ 10015 $\pm 20$ 10022 $\pm 20$ 10033 $\pm 20$ 10068 $\pm 20$ 100100 $\pm 20$ 10022 $\pm 20$ 10033 $\pm 20$ 100150 $\pm 20$ 100150 $\pm 20$ 100220 $\pm 20$ 100	$\begin{array}{c ccccc} \text{Inductance} & \text{Iest frequency} \\ (\mu\text{H}) & \text{tolerance}(\%) & (k\text{Hz}) & \text{max.} \\ \hline 1.0 & \pm 30 & 100 & 5.5 \\ 1.5 & \pm 30 & 100 & 6.8 \\ \hline 2.2 & \pm 30 & 100 & 10.2 \\ \hline 3.3 & \pm 30 & 100 & 11.6 \\ \hline 4.7 & \pm 30 & 100 & 15 \\ \hline 6.8 & \pm 30 & 100 & 21.4 \\ 10 & \pm 20 & 100 & 29 \\ 15 & \pm 20 & 100 & 43 \\ 22 & \pm 20 & 100 & 57 \\ \hline 33 & \pm 20 & 100 & 81 \\ \hline 47 & \pm 20 & 100 & 81 \\ \hline 47 & \pm 20 & 100 & 112 \\ \hline 68 & \pm 20 & 100 & 182 \\ \hline 100 & \pm 20 & 100 & 250 \\ \hline 150 & \pm 20 & 100 & 352 \\ \hline 220 & \pm 20 & 100 & 499 \\ \hline \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

\* 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.