

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

Conformity to RoHS Directive

## VLF Series VLF3014A

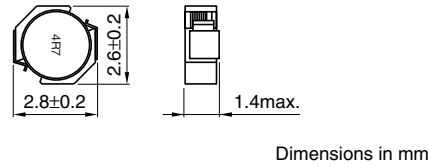
### FEATURES

- Mount area: 2.6×2.8mm  
Low profile: 1.4mm max. height
- Generic use for portable 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.

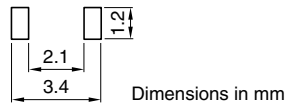
### APPLICATIONS

Power source inductor for mobile devices such as mobile phones, HDDs, and DSCs

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

Part No.	Inductance [at 1/2 I <sub>dc1</sub> ] <sup>*4</sup> (μH)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance(Ω)		Rated current(A)		
				max.	typ.	Based on inductance change I <sub>dc1</sub> max. <sup>*1</sup>	Based on temperature rise I <sub>dc2</sub> typ. <sup>*2</sup>	Based on inductance change I <sub>dc3</sub> typ. <sup>*3</sup>
VLF3014AT-1R0N1R8	1	±30	100	0.048	0.042	2.5	1.8	2.5
VLF3014AT-2R2M1R2	2.2	±20	100	0.1	0.091	1.7	1.2	1.6
VLF3014AT-3R3M1R0	3.3	±20	100	0.15	0.13	1.3	1	1.1
VLF3014AT-4R7MR90	4.7	±20	100	0.2	0.17	1.2	0.9	0.8
VLF3014AT-6R8MR72	6.8	±20	100	0.31	0.27	1	0.72	0.78
VLF3014AT-100MR59	10	±20	100	0.46	0.4	0.8	0.59	0.65
VLF3014AT-220MR37	22	±20	100	1.20	1	0.52	0.37	0.43

<sup>\*1</sup> Rated current based on inductance variation: Current when inductance decreases by 30% of the initial value due to direct current superimposed characteristics

<sup>\*2</sup> Rated current based on increasing product temperature: Current when temperature of the product reaches +40°C

<sup>\*3</sup> Rated current based on inductance variation: Current when inductance decreases by 10% of the initial value due to direct current superimposed characteristics

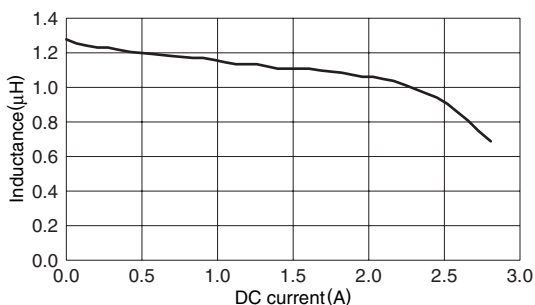
<sup>\*4</sup> Inductance is at 1/2 I<sub>dc1</sub> power distribution. The L value at 0A is higher than the guaranteed performance.

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

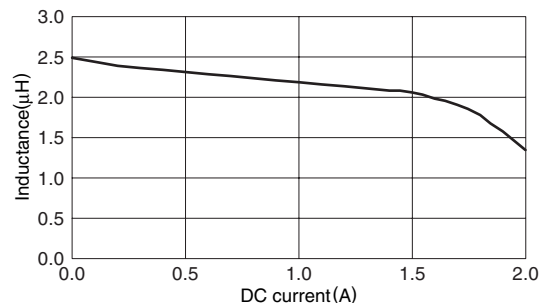
### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

##### VLF3014AT-1R0N1R8



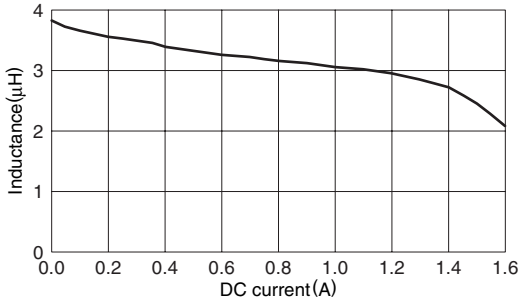
##### VLF3014AT-2R2M1R2



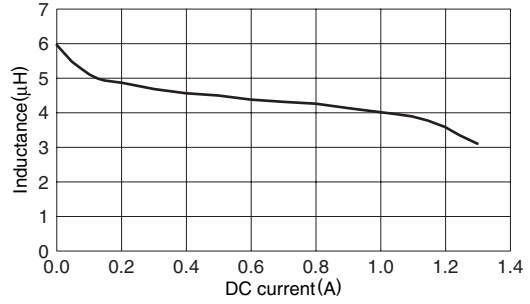
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

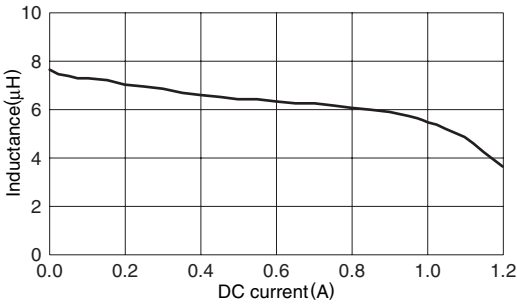
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS**  
**VLF3014AT-3R3M1R0**



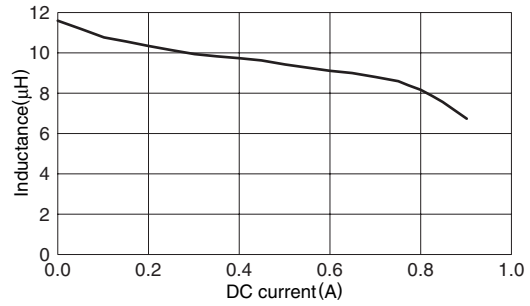
**VLF3014AT-4R7MR90**



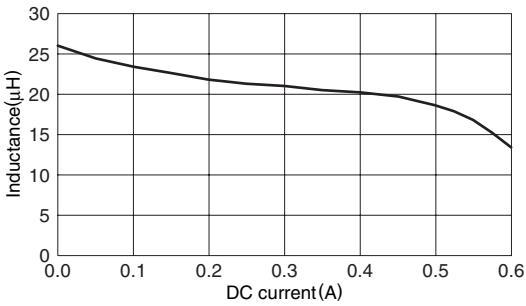
**VLF3014AT-6R8MR72**



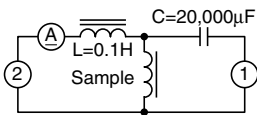
**VLF3014AT-100MR59**



**VLF3014AT-220MR37**



**TEST CIRCUIT**



- 1: LCR meter 4285A f=100kHz
- 2: DC constant current