

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

Conformity to RoHS Directive

## VLF Series VLF5014A

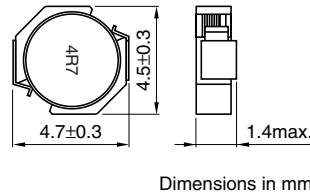
### FEATURES

- Miniature size  
Mount area: 4.5×4.7mm  
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.

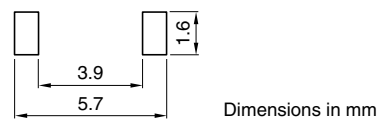
### APPLICATIONS

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>*2</sup> (μH)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance(Ω)		Rated current <sup>*1</sup> (A)	
				max.	typ.	Based on inductance change I <sub>dc1</sub> max.	Based on temperature rise I <sub>dc2</sub> typ.
VLF5014AT-1R5M1R7	1.5	±20	100	0.059	0.051	2.9	1.7
VLF5014AT-2R7M1R5	2.7	±20	100	0.078	0.068	2.2	1.5
VLF5014AT-4R7M1R1	4.7	±20	100	0.13	0.12	1.7	1.1
VLF5014AT-6R8MR99	6.8	±20	100	0.19	0.16	1.4	0.99
VLF5014AT-100MR92	10	±20	100	0.22	0.19	1.1	0.92
VLF5014AT-150MR76	15	±20	100	0.32	0.28	0.97	0.76
VLF5014AT-220MR62	22	±20	100	0.46	0.40	0.81	0.62
VLF5014AT-330MR50	33	±20	100	0.72	0.63	0.64	0.50
VLF5014AT-470MR41	47	±20	100	1.1	0.95	0.54	0.41
VLF5014AT-101MR26	100	±20	100	2.7	2.4	0.37	0.26

\*1 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.

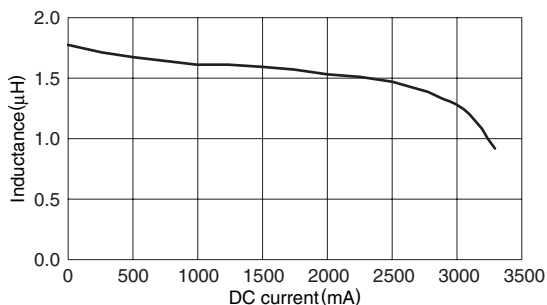
\*2 Inductance is at 1/2 I<sub>dc1</sub> power distribution. The L value at 0A is higher than the guaranteed performance.

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

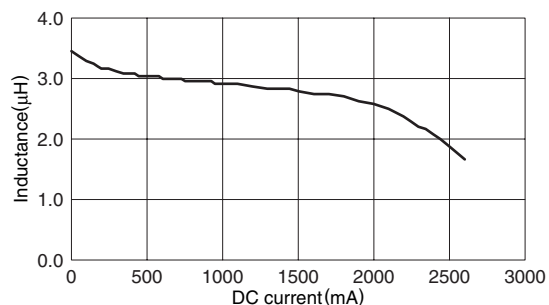
### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

##### VLF5014AT-1R5M1R7



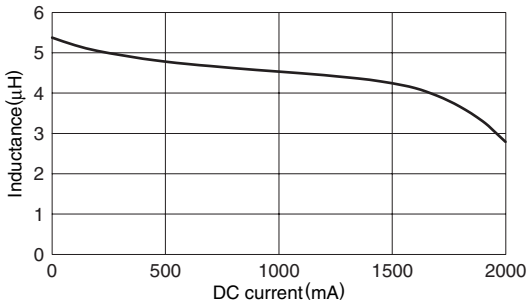
##### VLF5014AT-2R7M1R5



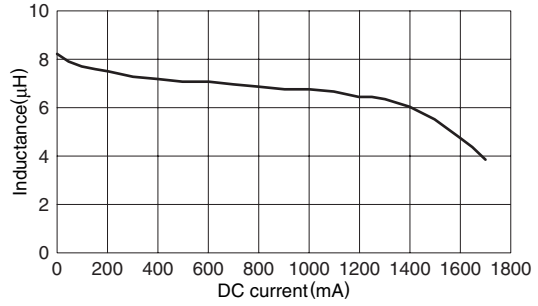
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

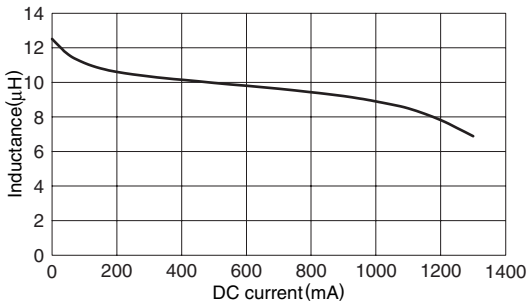
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS**  
**VLF5014AT-4R7M1R1**



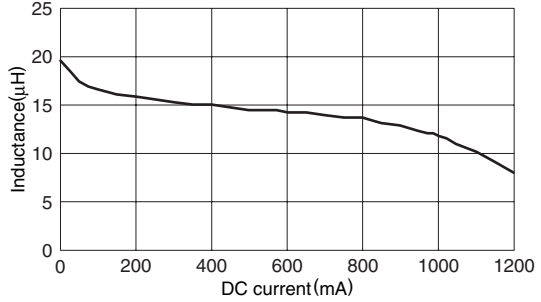
**VLF5014AT-6R8MR99**



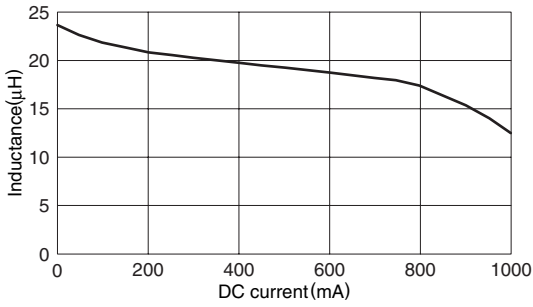
**VLF5014AT-100MR92**



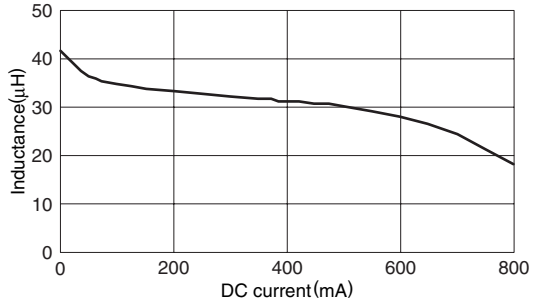
**VLF5014AT-150MR76**



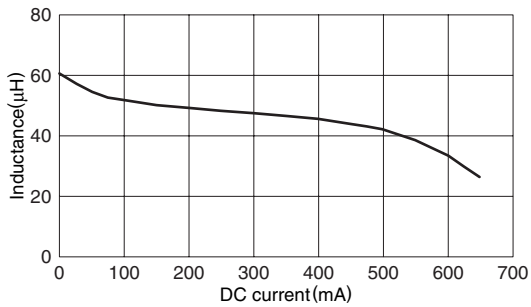
**VLF5014AT-220MR62**



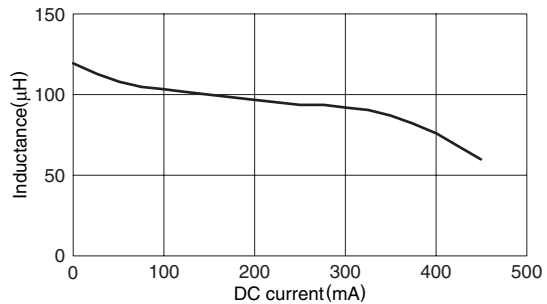
**VLF5014AT-330MR50**



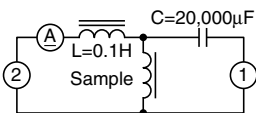
**VLF5014AT-470MR41**



**VLF5014AT-101MR26**



**TEST CIRCUIT**



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