

SMD Inductors(Coils)

For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

VLF Series VLF5014A

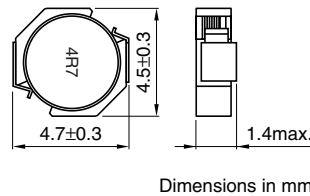
FEATURES

- 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.

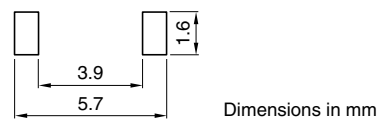
APPLICATIONS

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 _{dc1}] ^{*2} (μH)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance(Ω)		Rated current ^{*1} (A)	
				max.	typ.	Based on inductance change I _{dc1} max.	Based on temperature rise I _{dc2} 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.

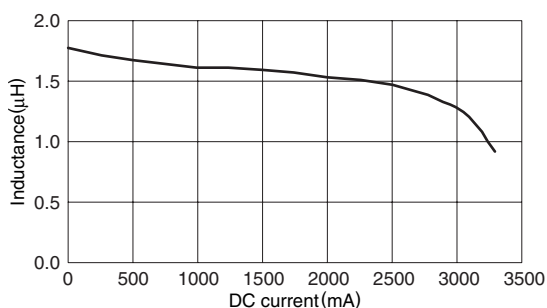
^{*2} Inductance is at 1/2 I_{dc1} power distribution. The L value at 0A is higher than the guaranteed performance.

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

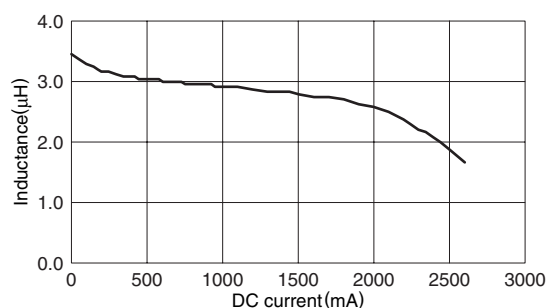
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLF5014AT-1R5M1R7



VLF5014AT-2R7M1R5



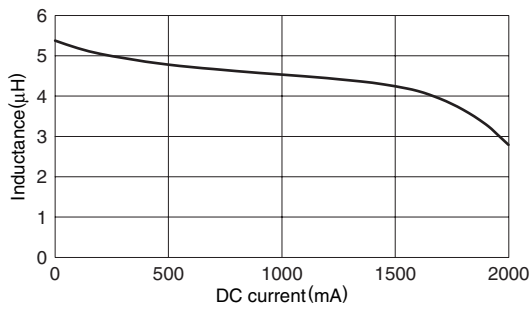
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

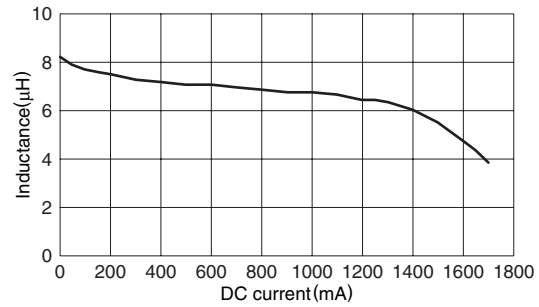
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

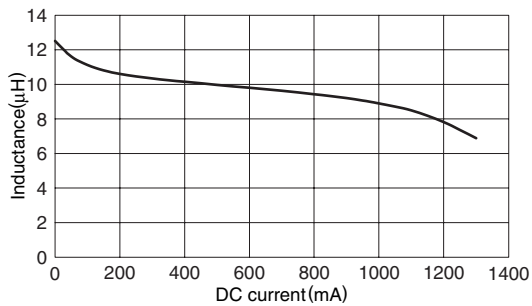
VLF5014AT-4R7M1R1



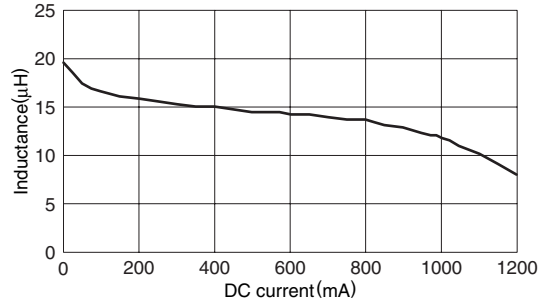
VLF5014AT-6R8MR99



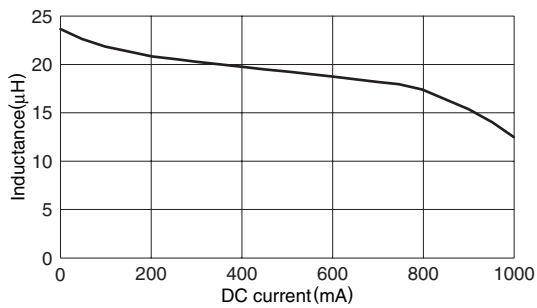
VLF5014AT-100MR92



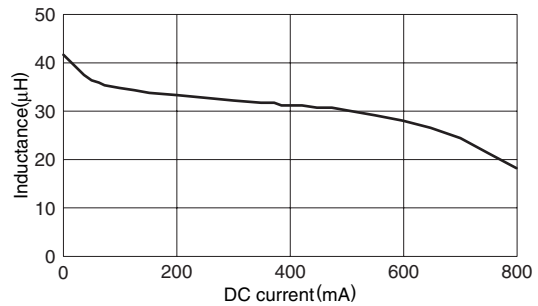
VLF5014AT-150MR76



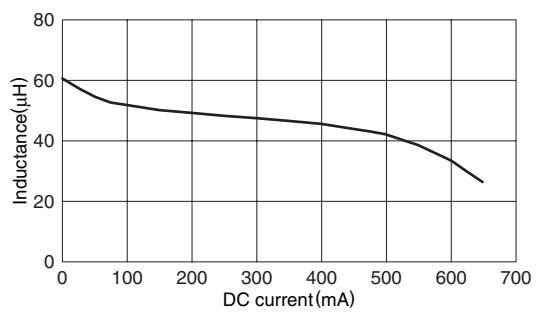
VLF5014AT-220MR62



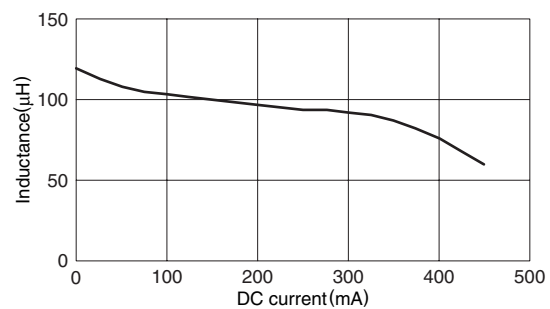
VLF5014AT-330MR50



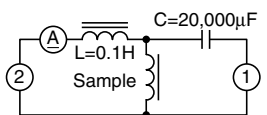
VLF5014AT-470MR41



VLF5014AT-101MR26



TEST CIRCUIT



1: LCR meter 4285A $f=100\text{kHz}$
 2: DC constant current