

SMD Inductors(Coils)

For Power Line(Wound, Magnetic Shielded)

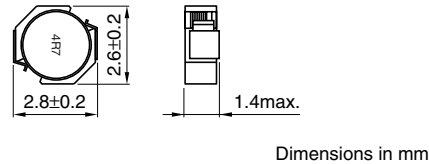
Conformity to RoHS Directive

VLF Series VLF3014A

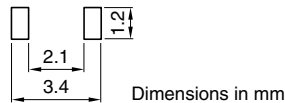
FEATURES

- 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.

SHAPES AND DIMENSIONS



RECOMMENDED PC BOARD PATTERN



APPLICATIONS

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

ELECTRICAL CHARACTERISTICS

Part No.	Inductance [at 1/2 Idc1]*4 (μH)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance(Ω)		Rated current(A)		
				max.	typ.	Based on inductance change Idc1 max.*1	Based on temperature rise Idc2 typ.*2	Based on inductance change Idc3 typ.*3
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

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

*2 Rated current based on increasing product temperature: Current when temperature of the product reaches +40°C

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

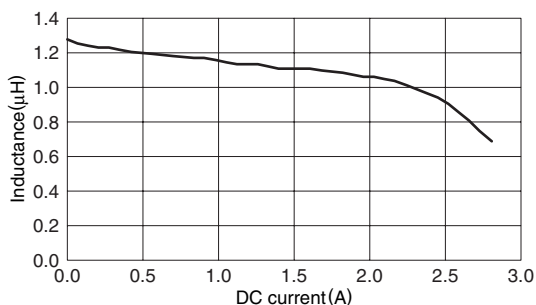
*4 Inductance is at 1/2 Idc1 power distribution. The L value at 0A is higher than the guaranteed performance.

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

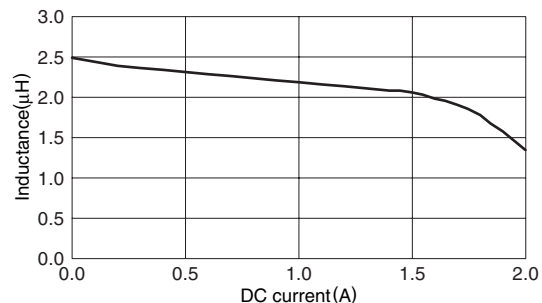
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLF3014AT-1R0N1R8



VLF3014AT-2R2M1R2



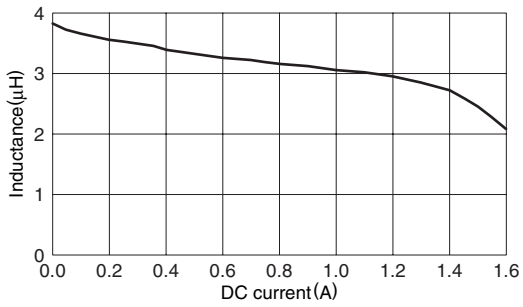
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

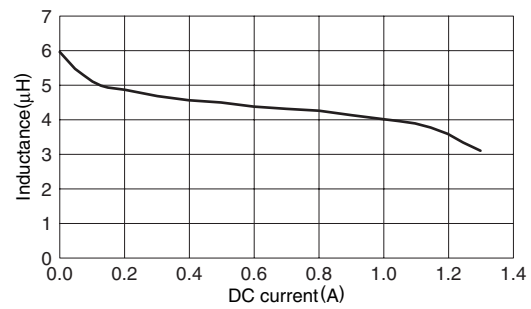
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

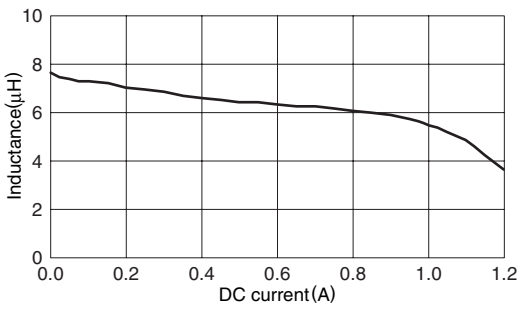
VLF3014AT-3R3M1R0



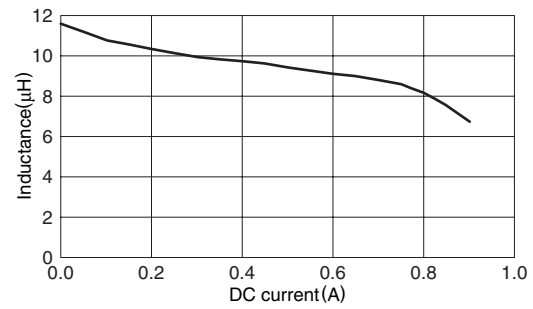
VLF3014AT-4R7MR90



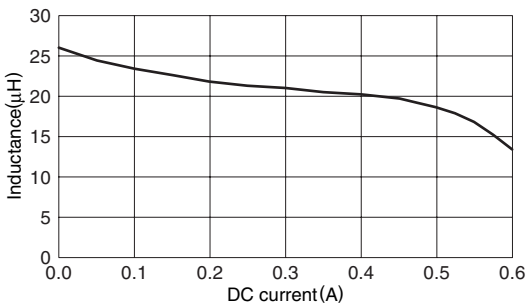
VLF3014AT-6R8MR72



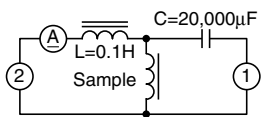
VLF3014AT-100MR59



VLF3014AT-220MR37



TEST CIRCUIT



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