

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

Conformity to RoHS Directive

VLF Series VLF3014A

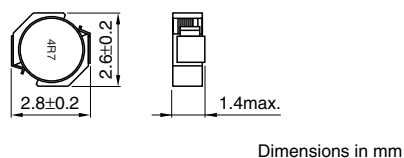
FEATURES

- 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.

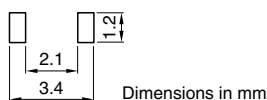
APPLICATIONS

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 _{dc1}] ^{*4} (μH)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance(Ω)		Rated current(A)		
				max.	typ.	Based on inductance change I _{dc1} max. ^{*1}	Based on temperature rise I _{dc2} typ. ^{*2}	Based on inductance change I _{dc3} 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

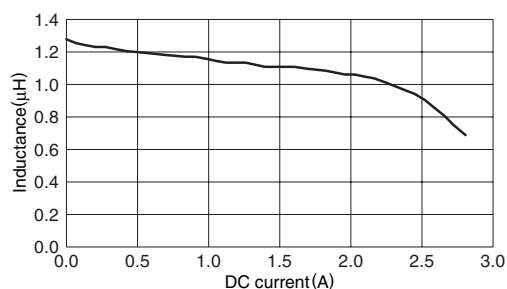
^{*4} Inductance is at 1/2 I_{dc1} power distribution. The L value at 0A is higher than the guaranteed performance.

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

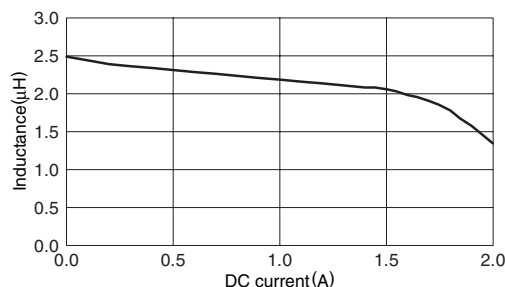
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLF3014AT-1R0N1R8



VLF3014AT-2R2M1R2

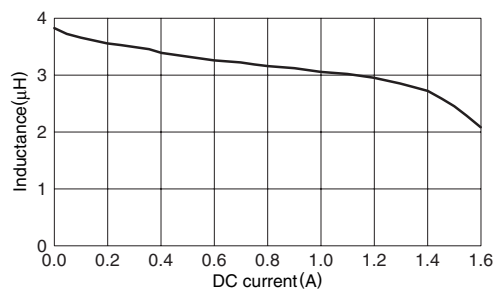
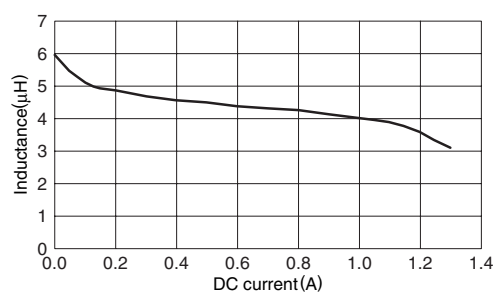
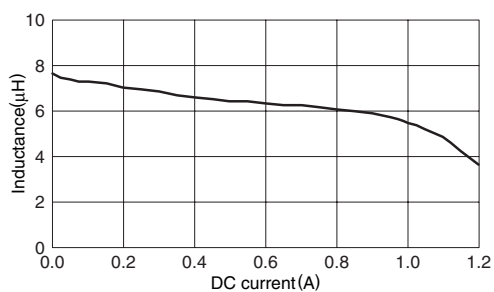
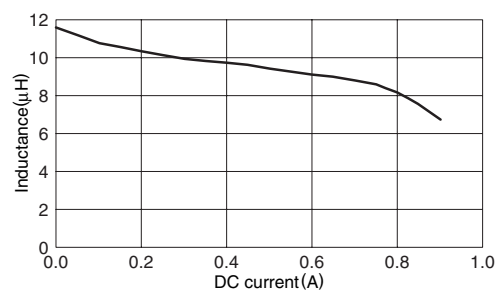
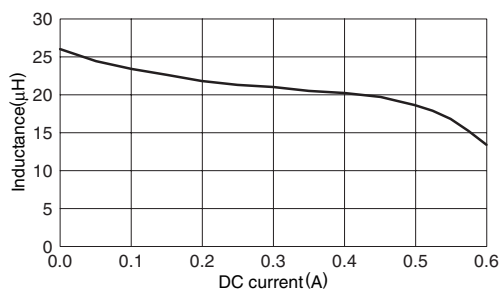


• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

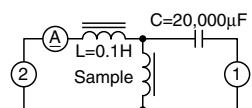
• All specifications are subject to change without notice.

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLF3014AT-3R3M1R0

VLF3014AT-4R7MR90

VLF3014AT-6R8MR72

VLF3014AT-100MR59

VLF3014AT-220MR37


TEST CIRCUIT



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