

SMD Inductors(Coils)

For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

VLF Series VLF3014A

FEATURES

- Mount area: $2.6 \times 2.8\text{mm}$
- 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

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 I_{dc2} typ. ^{*2}	Based on inductance 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 $+40^\circ\text{C}$

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

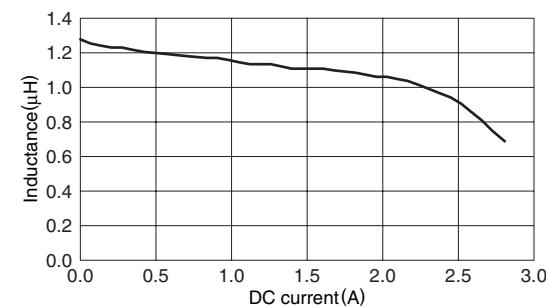
*4 Inductance is at 1/2 I_{dc1} power distribution. The L value at 0A is higher than the guaranteed performance.

• Operating temperature range: -40 to $+105^\circ\text{C}$ (Including self-temperature rise)

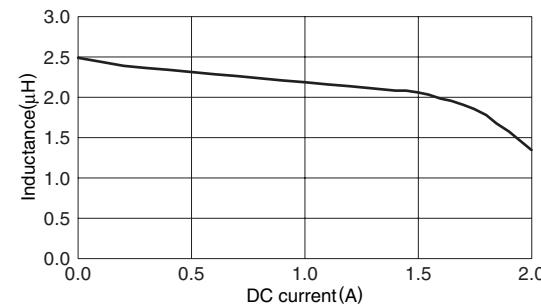
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLF3014AT-1R0N1R8

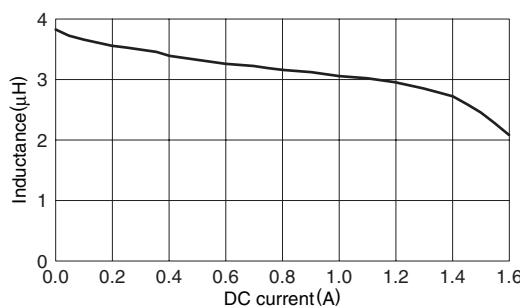
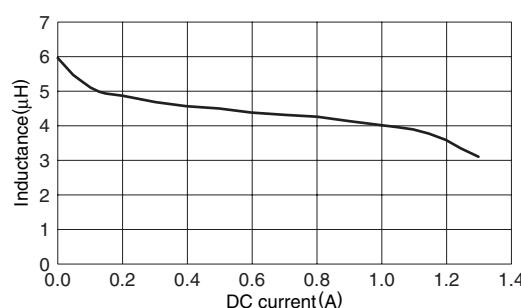
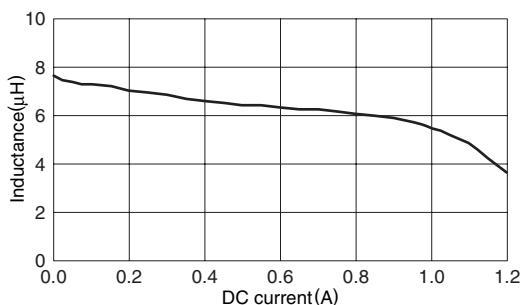
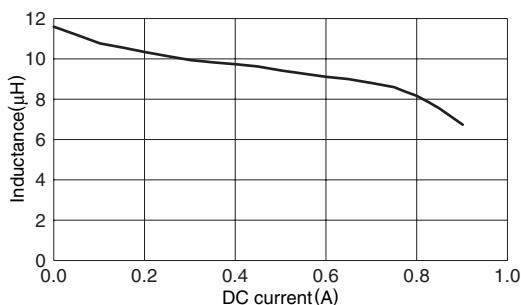
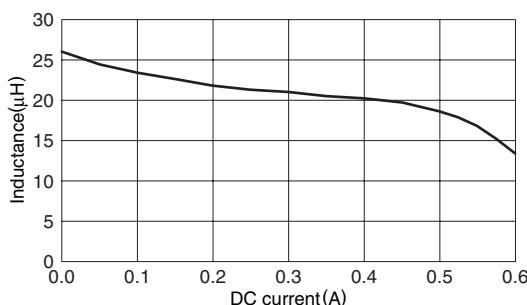
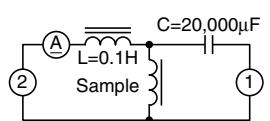


VLF3014AT-2R2M1R2



• 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