

SMD Inductors(Coils)

For Power Line(Wound, Magnetic Shielded)

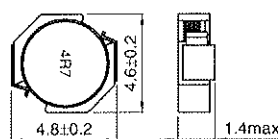
Conformity to RoHS Directive

VLF Series VLF5014S

FEATURES

- Miniature size
Mount area: 4.6×4.8mm
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.

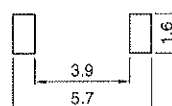
SHAPES AND DIMENSIONS



Dimensions in mm



RECOMMENDED PC BOARD PATTERN



Dimensions in mm

APPLICATIONS

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

ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μ H)	Inductance tolerance(%)	Test frequency (MHz)	DC resistance(Ω)		Rated current(A)*	
				max.	typ.	Based on inductance change max.	Based on temperature rise typ.
VLF5014ST-1R0N2R7	1	±30	1	0.05	0.041	4	2.7
VLF5014ST-2R2M2R3	2.2	±20	1	0.073	0.059	3	2.3
VLF5014ST-3R3M2R0	3.3	±20	1	0.1	0.077	2.3	2
VLF5014ST-4R7M1R7	4.7	±20	1	0.12	0.098	2	1.7
VLF5014ST-6R8M1R4	6.8	±20	1	0.2	0.16	1.6	1.4
VLF5014ST-100M1R2	10	±20	1	0.25	0.21	1.5	1.2

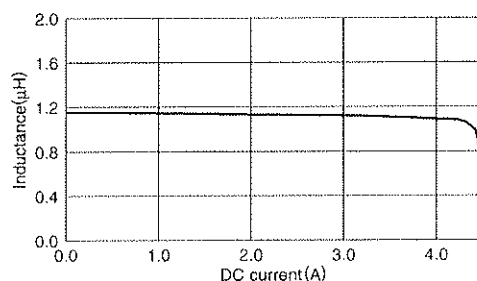
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

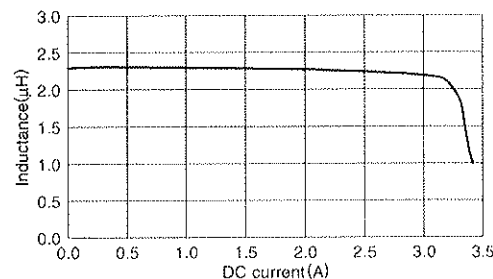
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLF5014ST-1R0N2R7



VLF5014ST-2R2M2R3



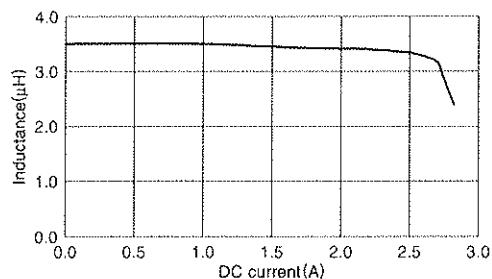
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

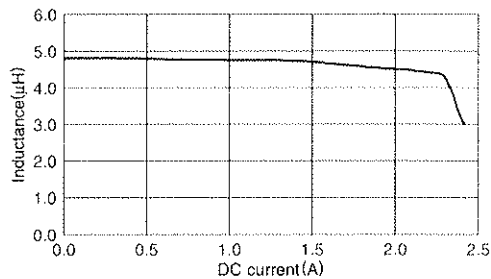
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

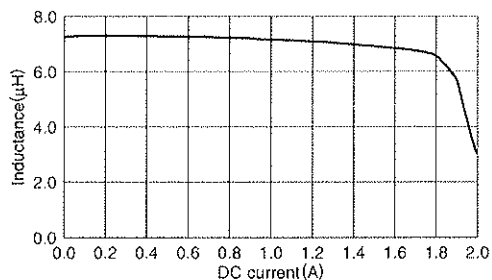
VLF5014ST-3R3M2R0



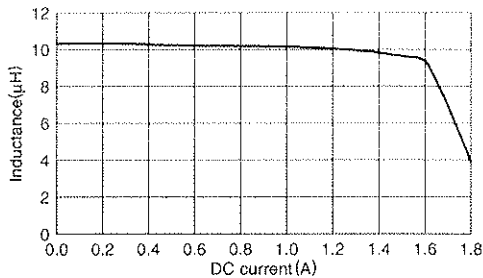
VLF5014ST-4R7M1R7



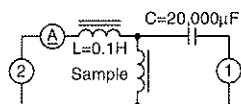
VLF5014ST-6R8M1R4



VLF5014ST-100M1R2



TEST CIRCUIT



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