

# SMD Inductors(Coils)

## For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

### VLF Series VLF4014S

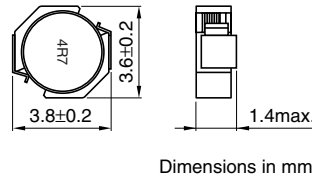
#### FEATURES

- Mount area: 3.6×3.8mm  
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

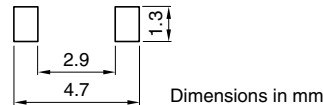
Power source inductor for mobile devices such as mobile phones, HDDs, and DSCs

#### SHAPES AND DIMENSIONS



Dimensions in mm

#### RECOMMENDED PC BOARD PATTERN



Dimensions in mm

#### ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance(%)	Test frequency (MHz)	DC resistance(Ω)		Rated current(A)*	
				max.	typ.	Based on inductance change max.	Based on temperature rise typ.
VLF4014ST-1R0N2R3	1	±30	1	0.049	0.041	2.7	2.3
VLF4014ST-2R2M1R9	2.2	±20	1	0.072	0.06	2	1.9
VLF4014ST-3R3M1R6	3.3	±20	1	0.107	0.089	1.7	1.6
VLF4014ST-4R7M1R4	4.7	±20	1	0.14	0.11	1.4	1.4
VLF4014ST-6R8M1R2	6.8	±20	1	0.19	0.16	1.2	1.2
VLF4014ST-100M1R0	10	±20	1	0.26	0.22	1	1

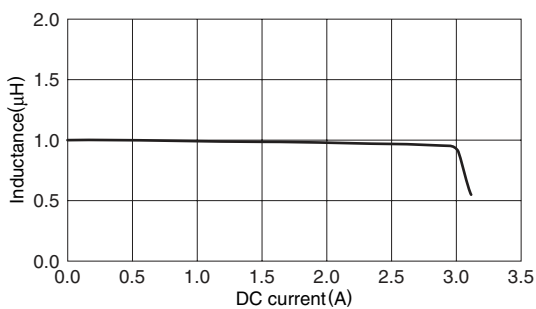
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

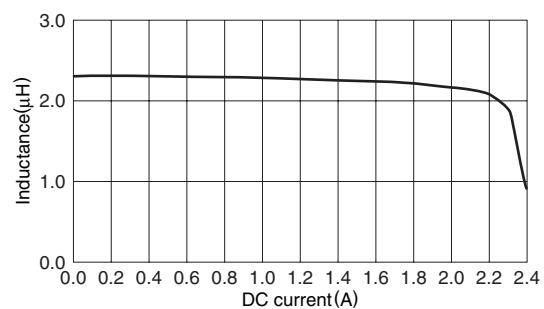
#### TYPICAL ELECTRICAL CHARACTERISTICS

##### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

###### VLF4014ST-1R0N2R3



###### VLF4014ST-2R2M1R9



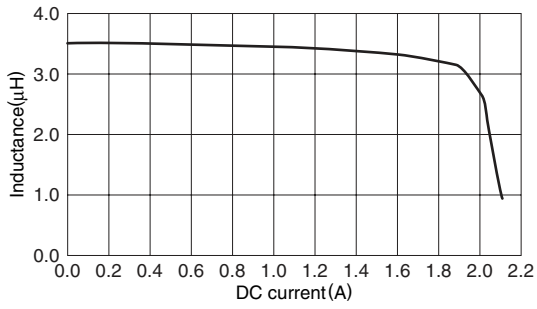
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

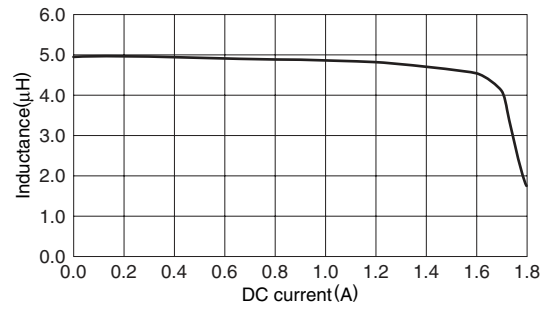
## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

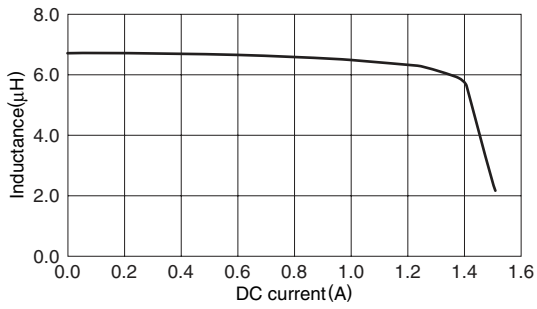
#### VLF4014ST-3R3M1R6



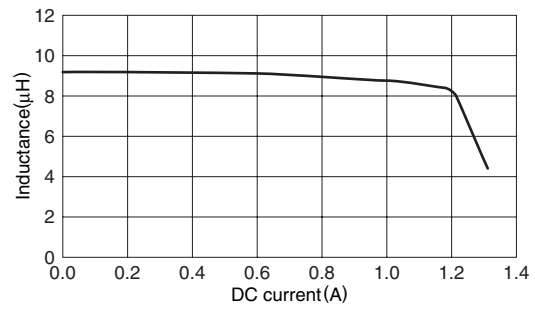
#### VLF4014ST-4R7M1R4



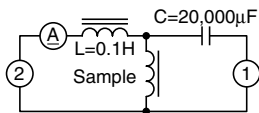
#### VLF4014ST-6R8M1R2



#### VLF4014ST-100M1R0



### TEST CIRCUIT



- 1: LCR meter 4285A  $f=1MHz$   
 2: DC constant current