

# SMD Inductors(Coils)

## For Power Line(Wound, Magnetic Shielded)

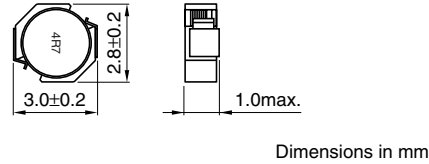
Conformity to RoHS Directive

### VLF Series VLF3010S

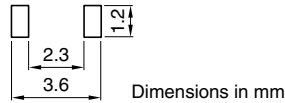
#### FEATURES

- Miniature size  
Mount area: 2.8×3.0mm  
Low profile: 1.0mm 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 (μH)	Inductance tolerance(%)	Test frequency (MHz)	DC resistance(Ω)		Rated current(A)*	
				max.	typ.	Based on inductance change max.	Based on temperature rise typ.
VLF3010ST-1R0N1R7	1	±30	1	0.049	0.041	1.7	2.3
VLF3010ST-2R2M1R1	2.2	±20	1	0.092	0.077	1.1	1.6
VLF3010ST-3R3MR88	3.3	±20	1	0.13	0.11	0.88	1.3
VLF3010ST-4R7MR75	4.7	±20	1	0.18	0.15	0.75	1.1
VLF3010ST-6R8MR65	6.8	±20	1	0.25	0.22	0.65	0.95
VLF3010ST-100MR53	10	±20	1	0.49	0.41	0.53	0.7
VLF3010ST-150MR38	15	±20	1	0.61	0.51	0.38	0.63
VLF3010ST-220MR34	22	±20	1	0.97	0.81	0.34	0.5

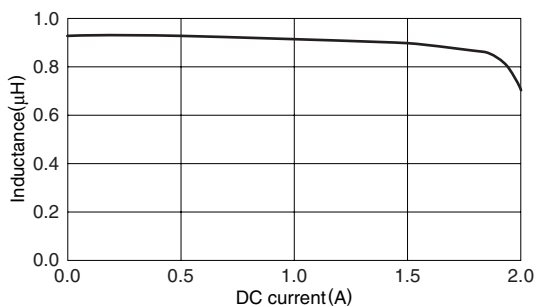
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

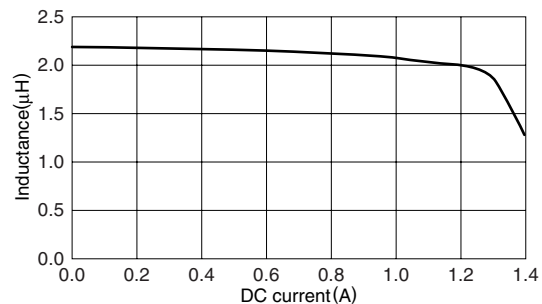
#### TYPICAL ELECTRICAL CHARACTERISTICS

##### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

###### VLF3010ST-1R0N1R7



###### VLF3010ST-2R2M1R1



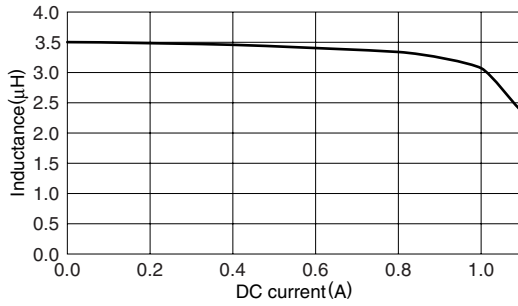
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

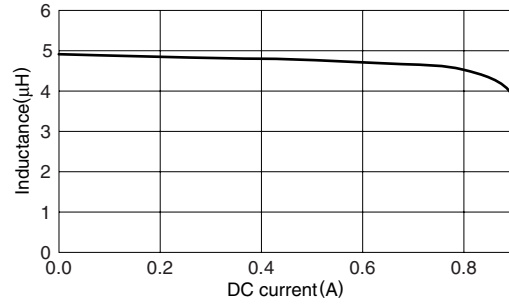
## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

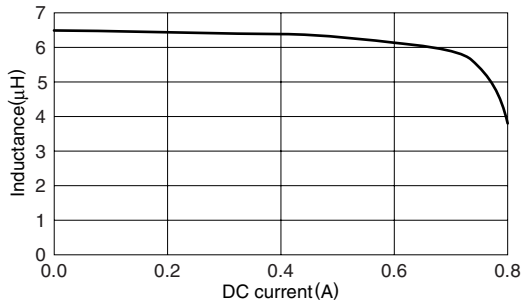
VLF3010ST-3R3MR88



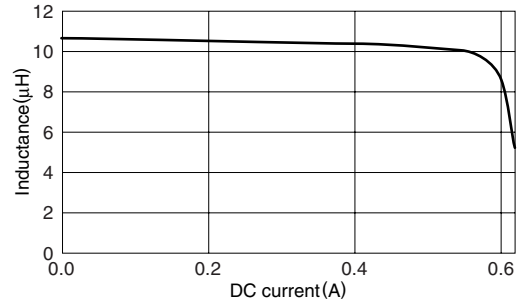
VLF3010ST-4R7MR75



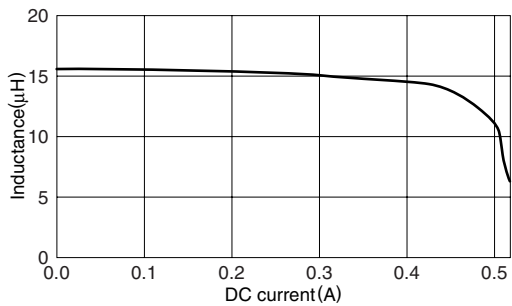
VLF3010ST-6R8MR65



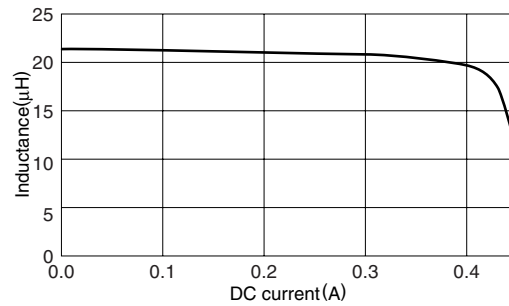
VLF3010ST-100MR53



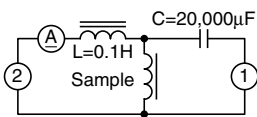
VLF3010ST-150MR38



VLF3010ST-220MR34



### TEST CIRCUIT



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