

# Inductors

For Power Line  
SMD

## VLF Series VLF4012A-2 Type

### FEATURES

- Miniature size  
Mount area: 3.5×3.7mm  
Low profile: 1.2mm 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 do not contain lead and support lead-free soldering.

### APPLICATIONS

DVCs, DSCs, PDAs, LCD displays, Cellular phones, HDDs, etc.

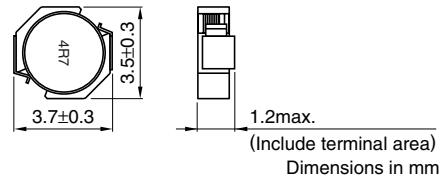
### ELECTRICAL CHARACTERISTICS

Part No.	Inductance ( $\mu$ H)	Inductance tolerance(%)	Test frequency (kHz)	DC resistance( $\Omega$ )		Rated current(A)*	
				max.	typ.	Based on inductance change max.	Based on temperature rise typ.
VLF4012AT-3R3M1R0-2	3.3	±20	100	0.11	0.095	1.0	1.4
VLF4012AT-4R7MR82-2	4.7	±20	100	0.15	0.12	0.82	1.2
VLF4012AT-6R8MR74-2	6.8	±20	100	0.20	0.17	0.74	1.0
VLF4012AT-100MR50-2	10	±20	100	0.23	0.20	0.5	0.97

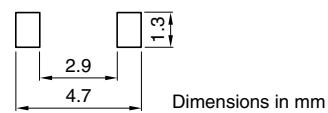
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERN



# Inductors

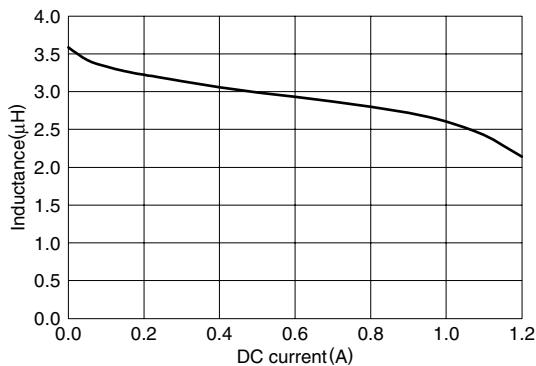
For Power Line  
SMD

## VLF Series VLF4012A-2 Type

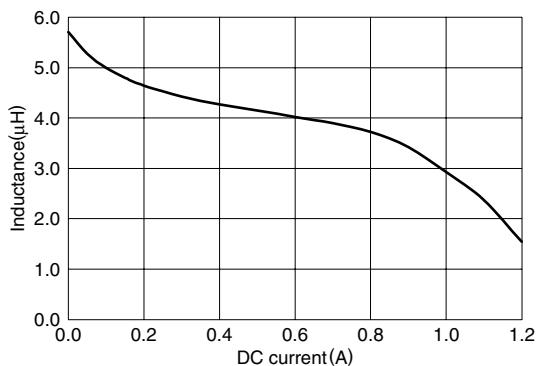
### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

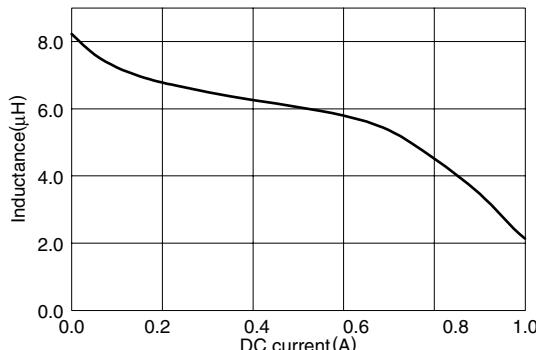
**VLF4012AT-3R3M1R0-2**



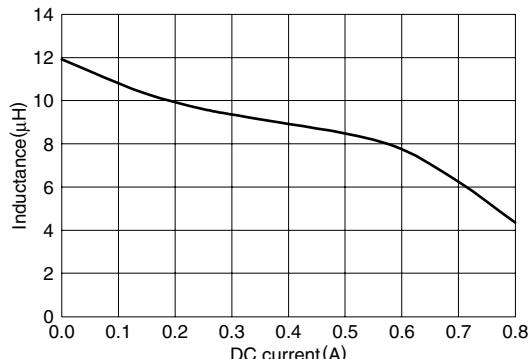
**VLF4012AT-4R7MR82-2**



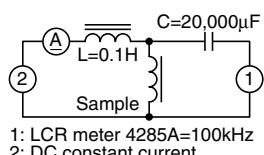
**VLF4012AT-6R8MR74-2**



**VLF4012AT-100MR50-2**



### TEST CIRCUIT



1: LCR meter 4285A=100kHz  
2: DC constant current