

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## VLS Series VLS201612E

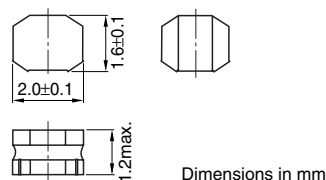
### FEATURES

- Miniature size  
Mount area: 2×1.6mm  
Height: 1.2mm max.
- 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.

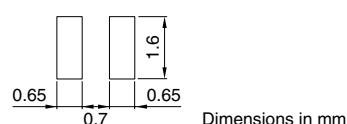
### APPLICATIONS

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

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

Part No.	Inductance ( $\mu\text{H}$ )	Inductance tolerance (%)	Test frequency (MHz)	DC resistance ( $\Omega$ )		Rated current(A)* Based on inductance change		Based on temperature rise typ.
				max.	typ.	max.	typ.	
VLS201612ET-R47N	0.47	$\pm 30$	1.0	0.063	0.052	1.90	2.15	2.00
VLS201612ET-R68N	0.68	$\pm 30$	1.0	0.072	0.060	1.70	1.90	1.85
VLS201612ET-1R0N	1.0	$\pm 30$	1.0	0.093	0.077	1.50	1.65	1.65
VLS201612ET-1R5N	1.5	$\pm 30$	1.0	0.159	0.132	1.20	1.30	1.25
VLS201612ET-2R2M	2.2	$\pm 20$	1.0	0.195	0.162	1.05	1.15	1.15
VLS201612ET-3R3M	3.3	$\pm 20$	1.0	0.357	0.297	0.79	0.88	0.85
VLS201612ET-4R7M	4.7	$\pm 20$	1.0	0.438	0.365	0.70	0.78	0.75
VLS201612ET-6R8M	6.8	$\pm 20$	1.0	0.708	0.590	0.58	0.65	0.60
VLS201612ET-100M	10	$\pm 20$	1.0	1.026	0.855	0.47	0.53	0.50

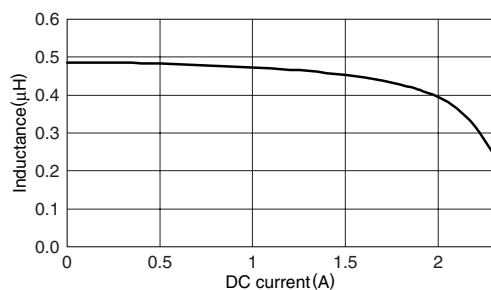
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

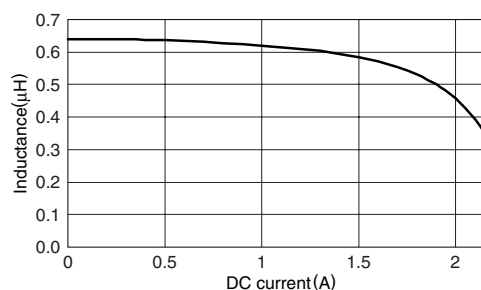
### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

##### VLS201612ET-R47N



##### VLS201612ET-R68N

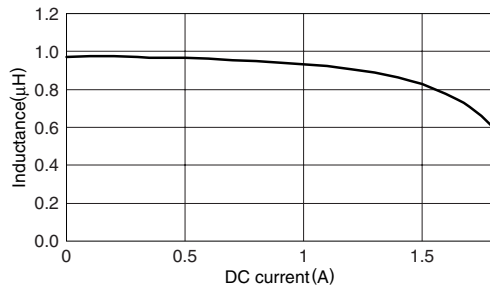


- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

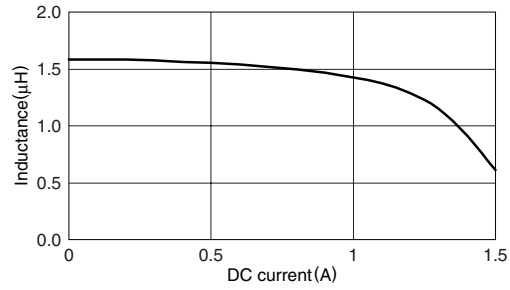
- All specifications are subject to change without notice.

### TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

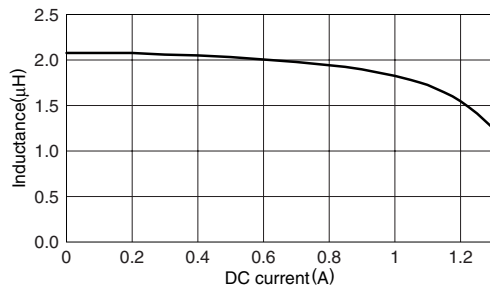
**VLS201612ET-1R0N**



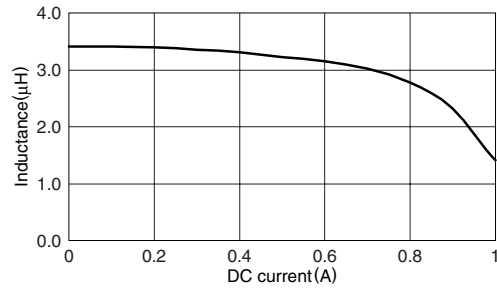
**VLS201612ET-1R5N**



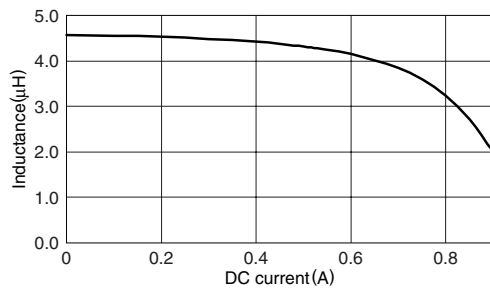
**VLS201612ET-2R2M**



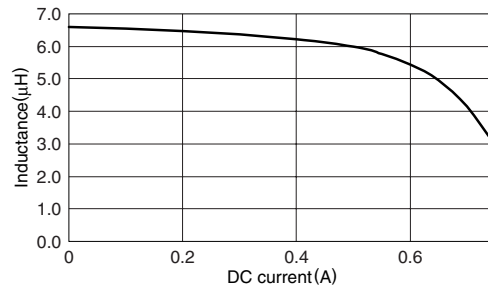
**VLS201612ET-3R3M**



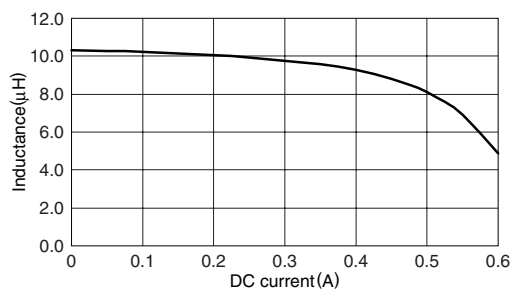
**VLS201612ET-4R7M**



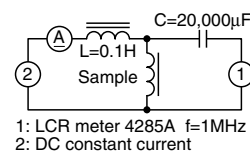
**VLS201612ET-6R8M**



**VLS201612ET-100M**



#### TEST CIRCUIT



• All specifications are subject to change without notice.