

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

Conformity to RoHS Directive

## VLS Series VLS201610E

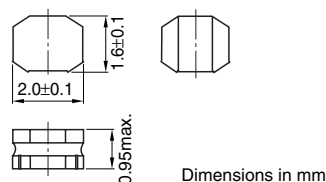
### FEATURES

- Miniature size  
Mount area: 2×1.6mm  
Height: 0.95mm 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.

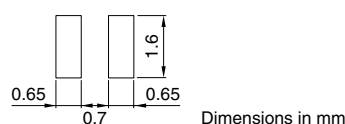
### APPLICATIONS

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

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance (%)	Test frequency (MHz)	DC resistance (Ω)		Rated current(A)* Based on inductance change		Based on temperature rise typ.
				max.	typ.	max.	typ.	
VLS201610ET-R47N	0.47	±30	1.0	0.065	0.054	1.85	2.10	1.95
VLS201610ET-R68N	0.68	±30	1.0	0.086	0.072	1.65	1.85	1.65
VLS201610ET-1R0N	1.0	±30	1.0	0.119	0.099	1.35	1.50	1.40
VLS201610ET-1R5N	1.5	±30	1.0	0.181	0.151	1.10	1.20	1.15
VLS201610ET-2R2M	2.2	±20	1.0	0.276	0.230	0.94	1.05	0.95
VLS201610ET-3R3M	3.3	±20	1.0	0.458	0.382	0.75	0.84	0.73
VLS201610ET-4R7M	4.7	±20	1.0	0.554	0.462	0.64	0.72	0.67
VLS201610ET-6R8M	6.8	±20	1.0	0.840	0.700	0.53	0.59	0.54
VLS201610ET-100M	10	±20	1.0	1.380	1.150	0.40	0.45	0.42

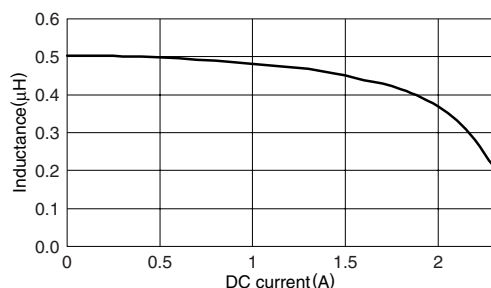
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

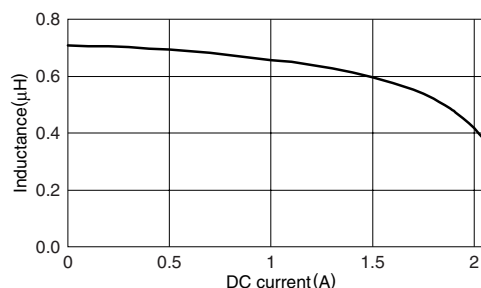
### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

##### VLS201610ET-R47N



##### VLS201610ET-R68N

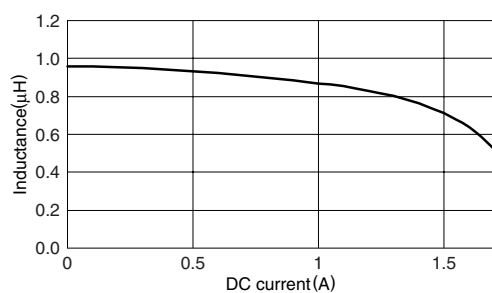
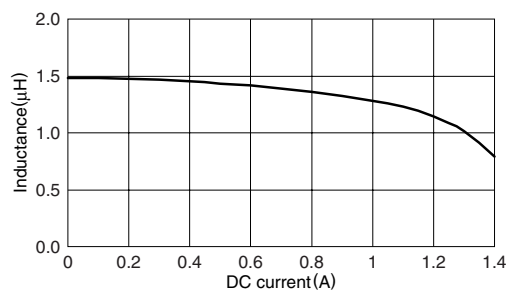
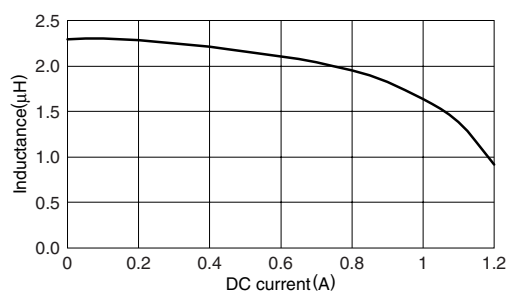
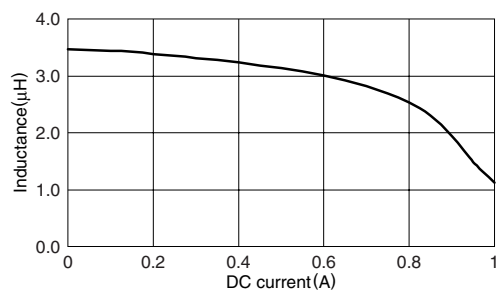
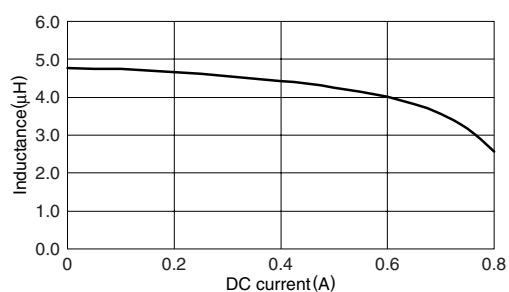
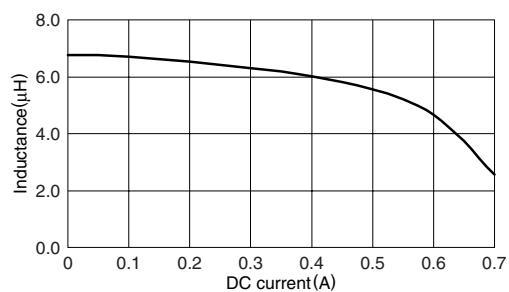
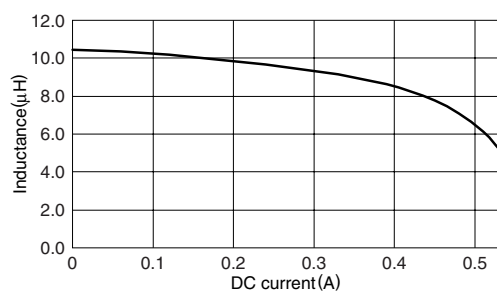


- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

**VLS201610ET-1R0N**

**VLS201610ET-1R5N**

**VLS201610ET-2R2M**

**VLS201610ET-3R3M**

**VLS201610ET-4R7M**

**VLS201610ET-6R8M**

**VLS201610ET-100M**


### TEST CIRCUIT

