

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

Conformity to RoHS Directive

VLS Series VLS3010E

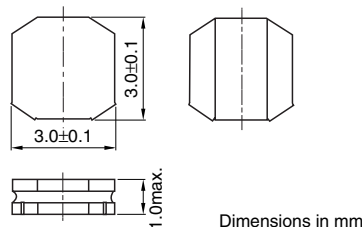
FEATURES

- Miniature size
Mount area: 3×3mm
Height: 1.0mm 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.

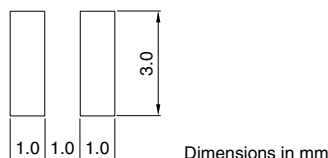
APPLICATIONS

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.	
VLS3010ET-1R0N	1.0	± 30	1.0	0.072	0.060	1.60	1.80	2.10
VLS3010ET-1R5N	1.5	± 30	1.0	0.085	0.071	1.35	1.50	1.90
VLS3010ET-2R2M	2.2	± 20	1.0	0.116	0.097	1.20	1.30	1.70
VLS3010ET-3R3M	3.3	± 20	1.0	0.156	0.130	1.00	1.10	1.50
VLS3010ET-4R7M	4.7	± 20	1.0	0.204	0.170	0.81	0.90	1.30
VLS3010ET-6R8M	6.8	± 20	1.0	0.312	0.260	0.69	0.77	1.00
VLS3010ET-100M	10	± 20	1.0	0.468	0.390	0.56	0.63	0.80
VLS3010ET-150M	15	± 20	1.0	0.612	0.510	0.48	0.54	0.70
VLS3010ET-220M	22	± 20	1.0	0.900	0.750	0.38	0.43	0.60

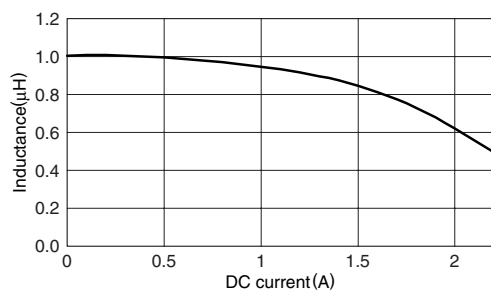
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

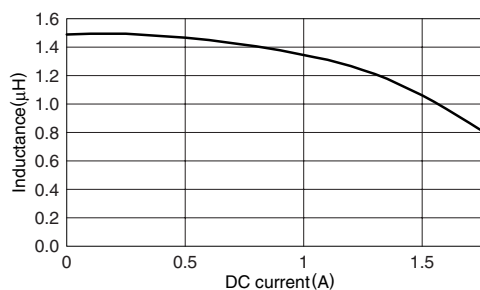
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS3010ET-1R0N



VLS3010ET-1R5N

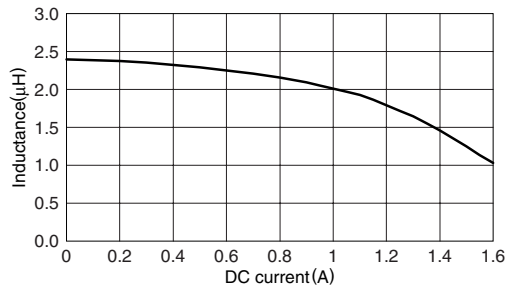
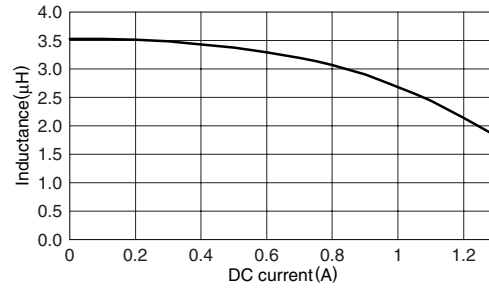
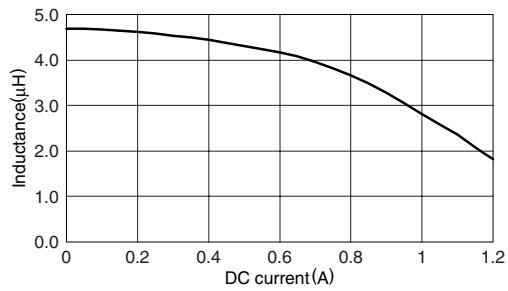
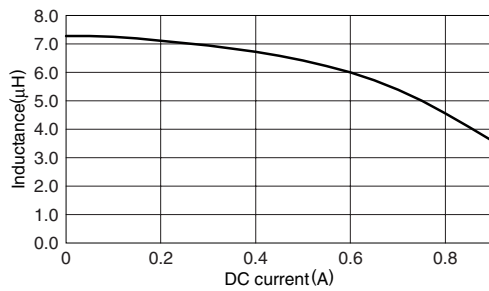
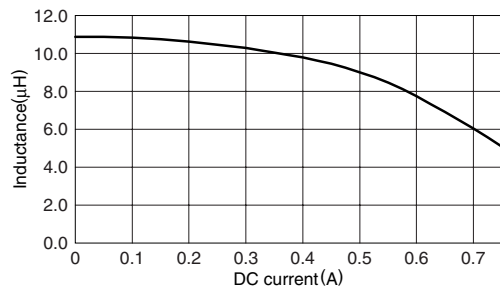
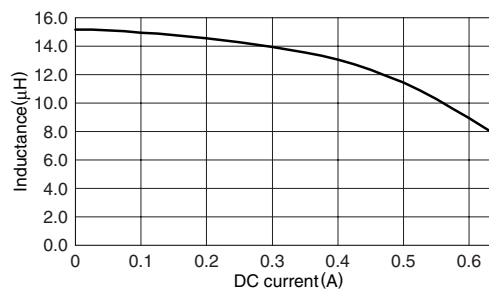
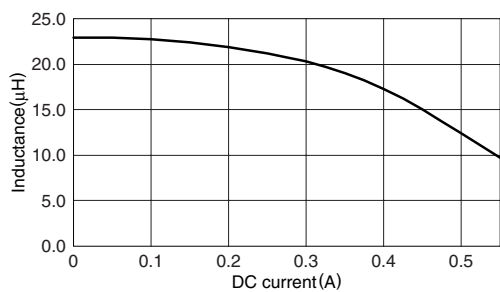


- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

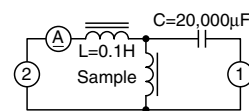
- All specifications are subject to change without notice.

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS3010ET-2R2M

VLS3010ET-3R3M

VLS3010ET-4R7M

VLS3010ET-6R8M

VLS3010ET-100M

VLS3010ET-150M

VLS3010ET-220M


TEST CIRCUIT



- 1: LCR meter 4285A $f=1\text{MHz}$
- 2: DC constant current