

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

Conformity to RoHS Directive

VLS Series VLS2010E

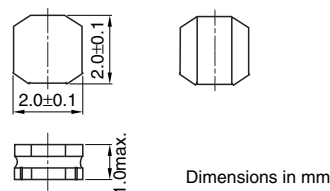
FEATURES

- Miniature size
Mount area: 2×2mm
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.

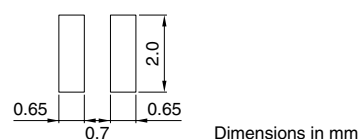
APPLICATIONS

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)*		
				max.	typ.	Based on inductance change		Based on temperature rise typ.
						max.	typ.	
VLS2010ET-R56N	0.56	± 30	1.0	0.060	0.050	2.00	2.25	2.05
VLS2010ET-1R0N	1.0	± 30	1.0	0.108	0.090	1.45	1.65	1.55
VLS2010ET-1R5N	1.5	± 30	1.0	0.156	0.130	1.20	1.30	1.25
VLS2010ET-2R2M	2.2	± 20	1.0	0.228	0.190	1.00	1.10	1.05
VLS2010ET-3R3M	3.3	± 20	1.0	0.348	0.290	0.83	0.93	0.86
VLS2010ET-4R7M	4.7	± 20	1.0	0.408	0.340	0.70	0.78	0.79
VLS2010ET-6R8M	6.8	± 20	1.0	0.648	0.540	0.57	0.64	0.63
VLS2010ET-100M	10	± 20	1.0	0.936	0.780	0.47	0.52	0.52
VLS2010ET-150M	15	± 20	1.0	1.476	1.230	0.40	0.44	0.41
VLS2010ET-220M	22	± 20	1.0	2.040	1.700	0.33	0.37	0.35

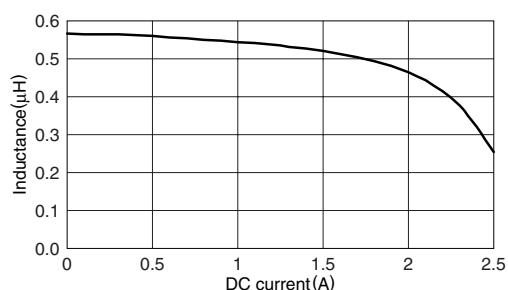
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

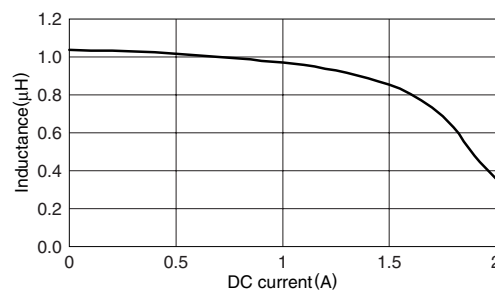
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS2010ET-R56N



VLS2010ET-1R0N



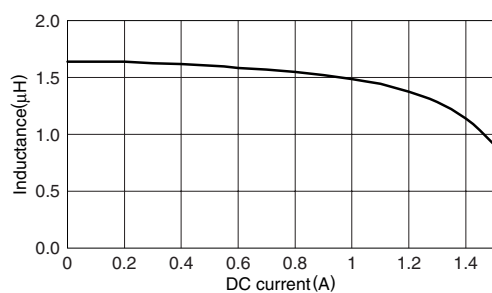
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

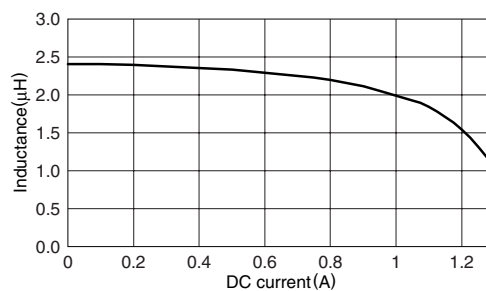
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

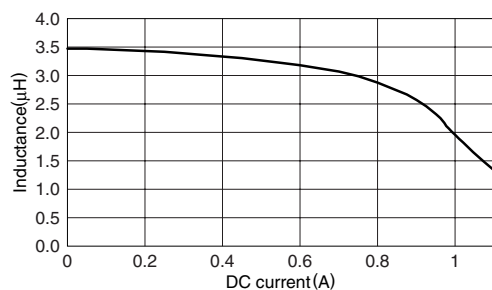
VLS2010ET-1R5N



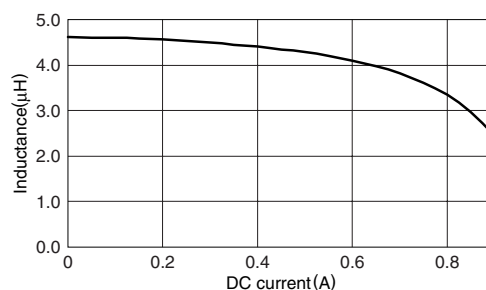
VLS2010ET-2R2M



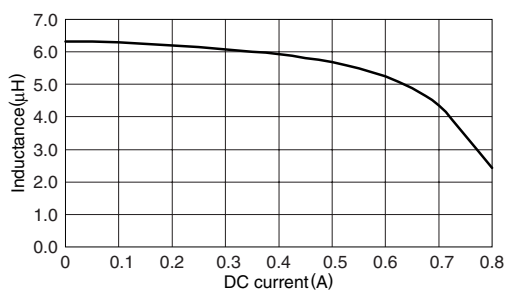
VLS2010ET-3R3M



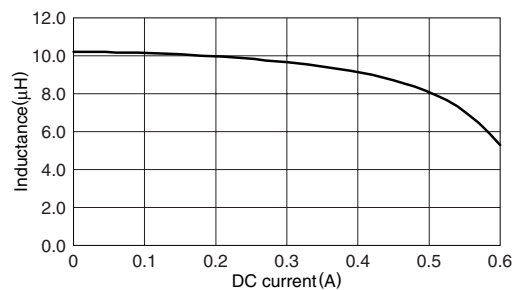
VLS2010ET-4R7M



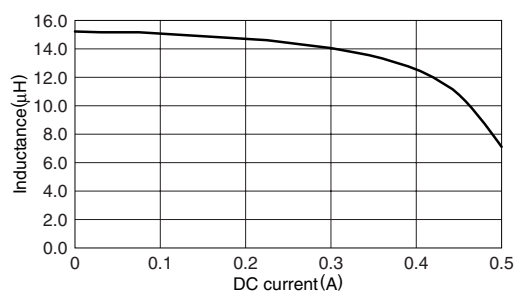
VLS2010ET-6R8M



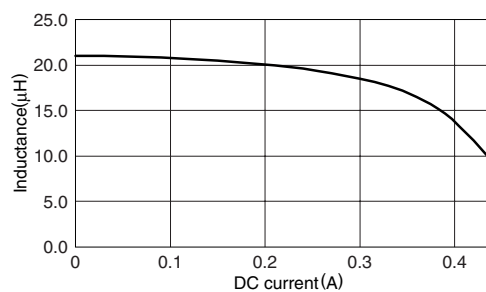
VLS2010ET-100M



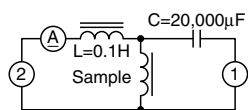
VLS2010ET-150M



VLS2010ET-220M



TEST CIRCUIT



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