

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

Conformity to RoHS Directive

VLS Series VLS252012E

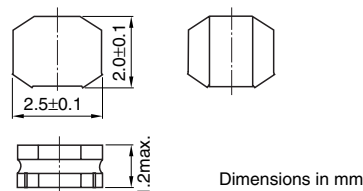
FEATURES

- Miniature size
Mount area: 2.5×2mm
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.

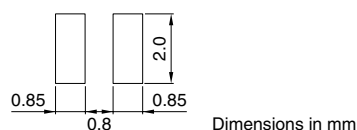
APPLICATIONS

DVCs, DSCs, PDAs, LCD displays, cellular phones, 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 temperature rise typ.
				max.	typ.	max.	typ.	
VLS252012ET-R47N	0.47	±30	1.0	0.056	0.047	2.75	3.10	2.15
VLS252012ET-1R0N	1.0	±30	1.0	0.087	0.073	2.20	2.45	1.70
VLS252012ET-1R5N	1.5	±30	1.0	0.126	0.105	1.80	2.00	1.45
VLS252012ET-2R2M	2.2	±20	1.0	0.154	0.129	1.55	1.75	1.30
VLS252012ET-3R3M	3.3	±20	1.0	0.272	0.227	1.25	1.40	0.98
VLS252012ET-4R7M	4.7	±20	1.0	0.405	0.338	1.05	1.20	0.81
VLS252012ET-6R8M	6.8	±20	1.0	0.612	0.510	0.85	0.95	0.65
VLS252012ET-100M	10	±20	1.0	0.756	0.630	0.73	0.82	0.59

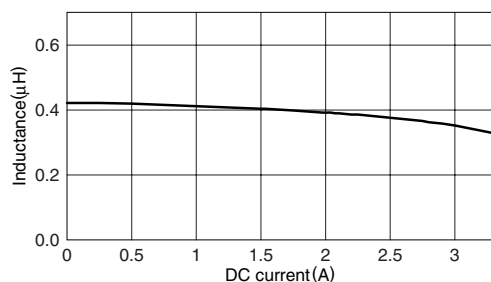
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

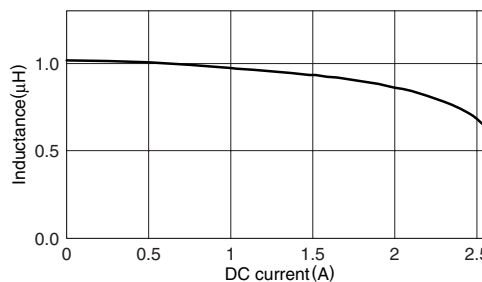
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS252012ET-R47N



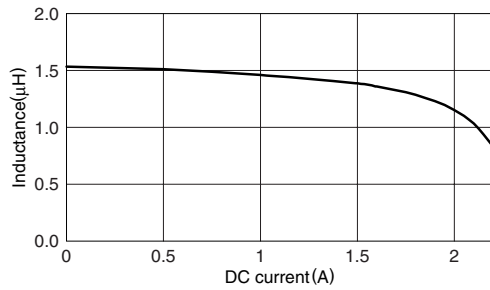
VLS252012ET-1R0N



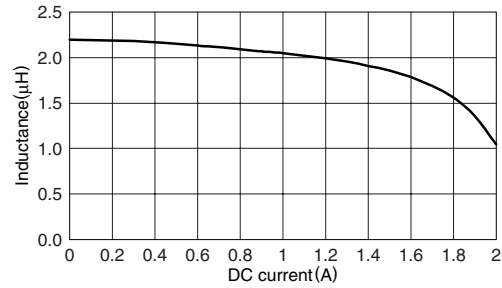
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

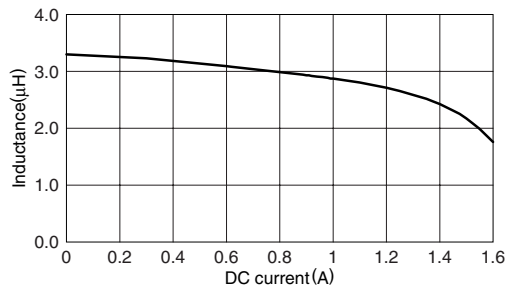
TYPICAL ELECTRICAL CHARACTERISTICS
INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS
VLS252012ET-1R5N



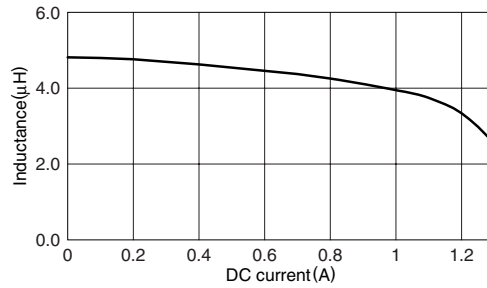
VLS252012ET-2R2M



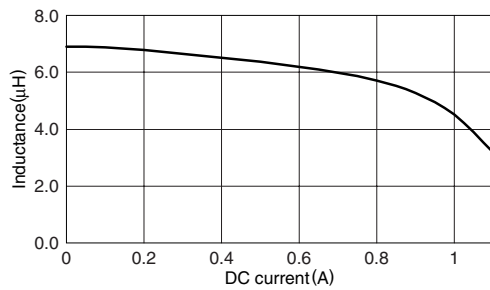
VLS252012ET-3R3M



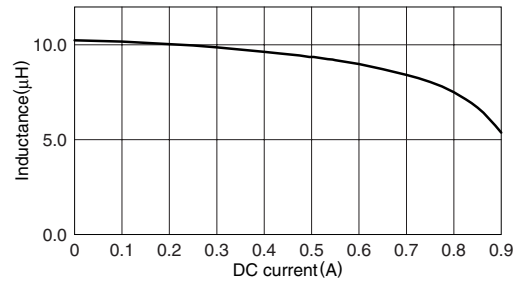
VLS252012ET-4R7M



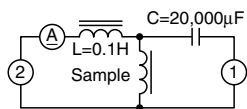
VLS252012ET-6R8M



VLS252012ET-100M



TEST CIRCUIT



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