

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

Conformity to RoHS Directive

VLS Series VLS3012E

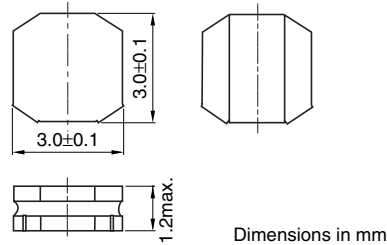
FEATURES

- Miniature size
Mount area: 3×3mm
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.

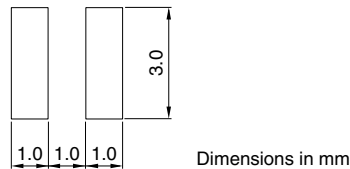
APPLICATIONS

DSCs, DVCs, PDAs, portable game devices, cellular phones, 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.
VLS3012ET-1R0N	1.0	±30	1.0	0.068	0.056	1.90	2.15	2.00
VLS3012ET-1R5N	1.5	±30	1.0	0.076	0.063	1.50	1.70	1.85
VLS3012ET-2R2M	2.2	±20	1.0	0.096	0.080	1.35	1.50	1.70
VLS3012ET-3R3M	3.3	±20	1.0	0.120	0.100	1.05	1.20	1.55
VLS3012ET-4R7M	4.7	±20	1.0	0.156	0.130	0.95	1.05	1.30
VLS3012ET-6R8M	6.8	±20	1.0	0.228	0.190	0.81	0.90	1.05
VLS3012ET-100M	10	±20	1.0	0.336	0.280	0.64	0.76	0.89
VLS3012ET-150M	15	±20	1.0	0.516	0.430	0.55	0.62	0.74
VLS3012ET-220M	22	±20	1.0	0.756	0.630	0.44	0.49	0.61
VLS3012ET-330M	33	±20	1.0	1.248	1.040	0.37	0.41	0.48
VLS3012ET-470M	47	±20	1.0	1.500	1.250	0.31	0.35	0.44

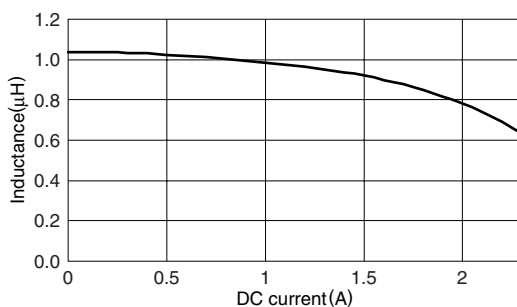
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

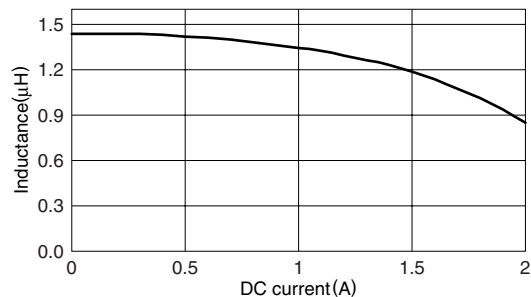
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS3012ET-1R0N



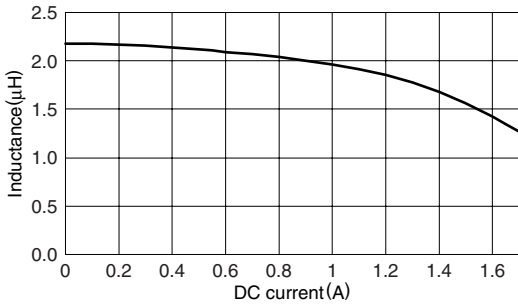
VLS3012ET-1R5N



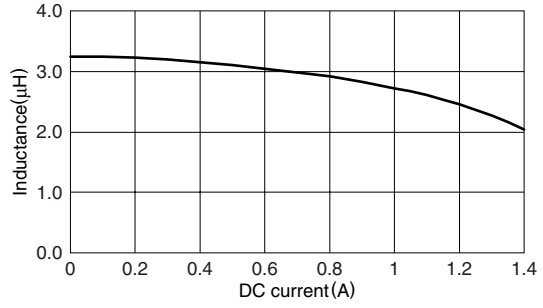
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

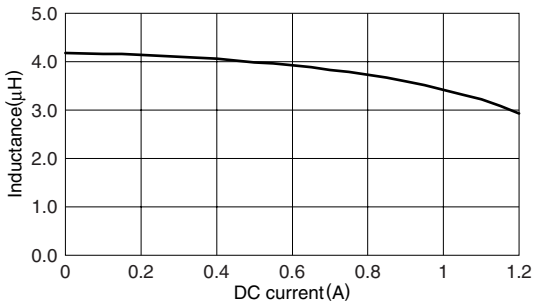
TYPICAL ELECTRICAL CHARACTERISTICS
INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS
VLS3012ET-2R2M



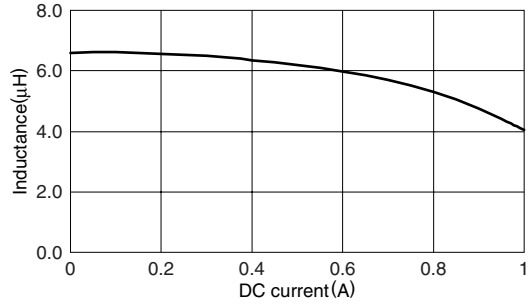
VLS3012ET-3R3M



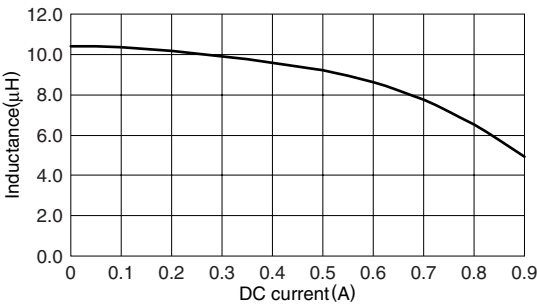
VLS3012ET-4R7M



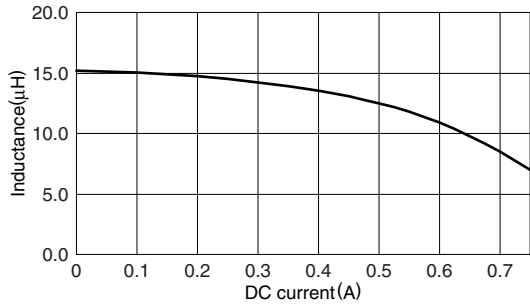
VLS3012ET-6R8M



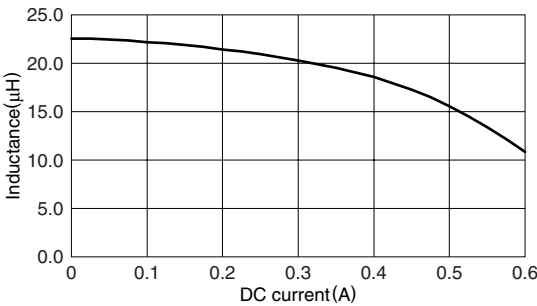
VLS3012ET-100M



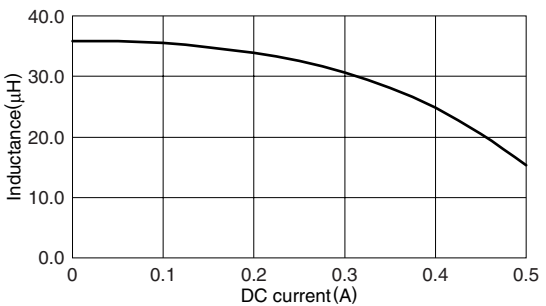
VLS3012ET-150M



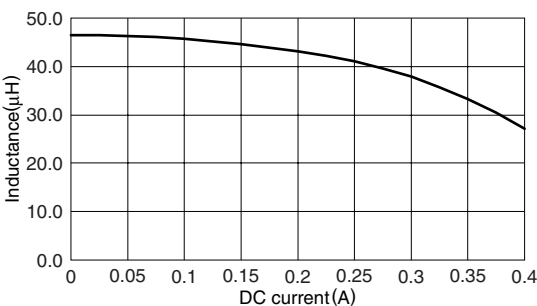
VLS3012ET-220M



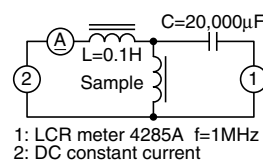
VLS3012ET-330M



VLS3012ET-470M



TEST CIRCUIT



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