

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

Conformity to RoHS Directive

VLS Series VLS4012

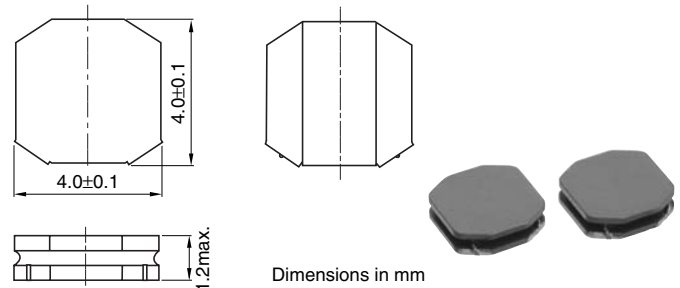
FEATURES

- Miniature size
Mount area: 4×4mm
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.

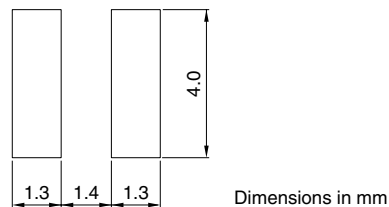
APPLICATIONS

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 inductance change		Based on temperature rise typ.
				max.	typ.	max.	typ.	
VLS4012T-1R0N1R6	1	±30	1	0.06	0.05	2.5	2.8	1.6
VLS4012T-1R5N1R5	1.5	±30	1	0.072	0.06	2.1	2.3	1.5
VLS4012T-2R2M1R4	2.2	±20	1	0.084	0.07	1.7	1.9	1.4
VLS4012T-3R3M1R2	3.3	±20	1	0.102	0.085	1.4	1.6	1.2
VLS4012T-4R7M1R1	4.7	±20	1	0.132	0.11	1.2	1.4	1.1
VLS4012T-6R8M1R0	6.8	±20	1	0.156	0.13	1	1.2	1
VLS4012T-100MR82	10	±20	1	0.24	0.2	0.89	0.99	0.82
VLS4012T-150MR65	15	±20	1	0.372	0.31	0.7	0.78	0.65
VLS4012T-220MR57	22	±20	1	0.492	0.41	0.63	0.7	0.57
VLS4012T-330MR44	33	±20	1	0.816	0.68	0.47	0.53	0.44
VLS4012T-470MR39	47	±20	1	1.02	0.85	0.41	0.46	0.39

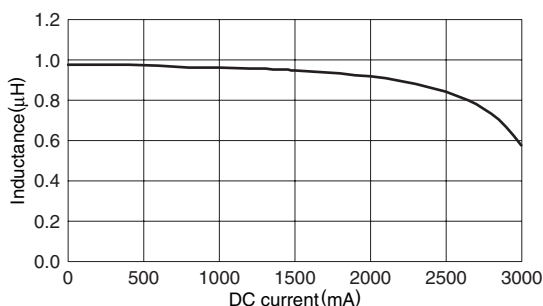
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

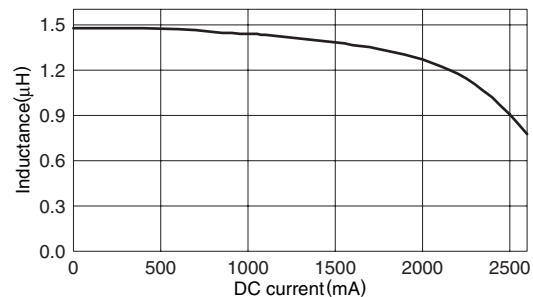
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS4012T-1R0N1R6



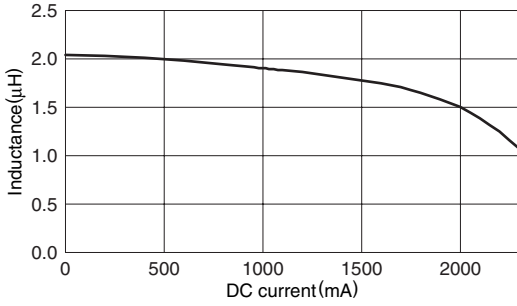
VLS4012T-1R5N1R5



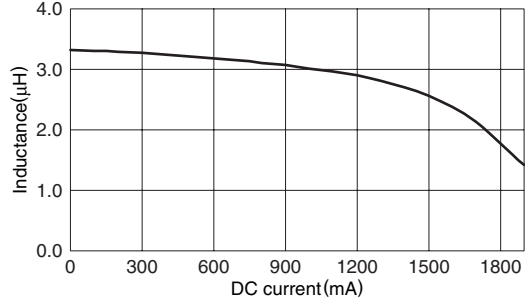
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

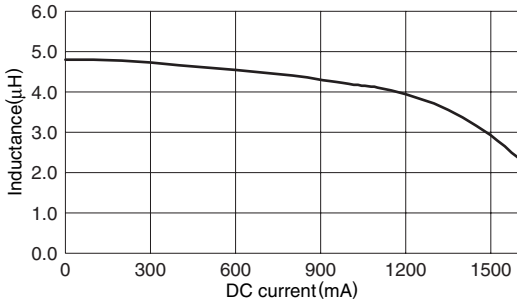
TYPICAL ELECTRICAL CHARACTERISTICS
INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS
VLS4012T-2R2M1R4



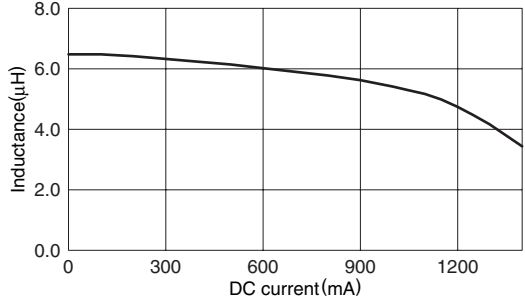
VLS4012T-3R3M1R2



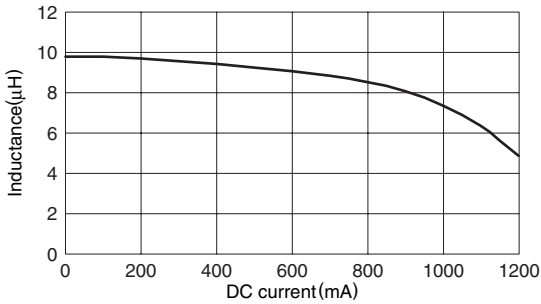
VLS4012T-4R7M1R1



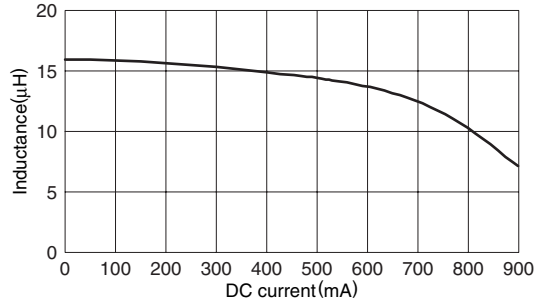
VLS4012T-6R8M1R0



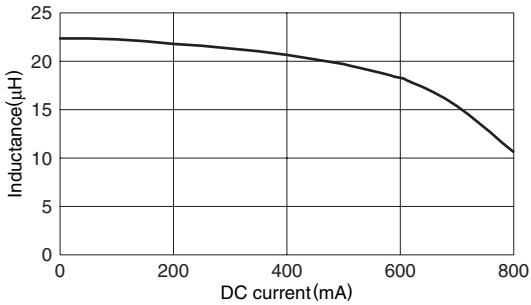
VLS4012T-100MR82



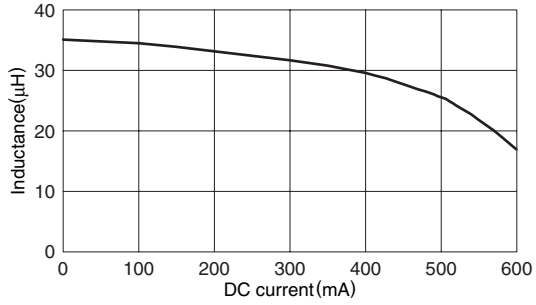
VLS4012T-150MR65



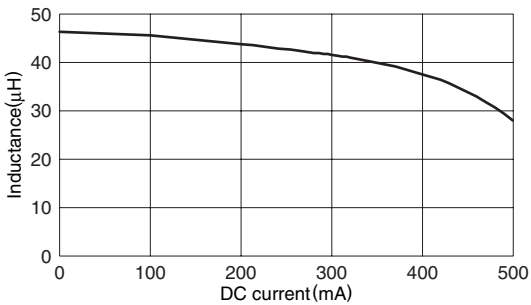
VLS4012T-220MR57



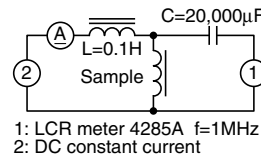
VLS4012T-330MR44



VLS4012T-470MR39



TEST CIRCUIT



1: LCR meter 4285A f=1MHz
 2: DC constant current

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