

SMD Inductors(Coils)

For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

VLS Series VLS252012

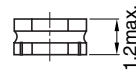
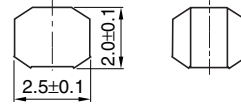
FEATURES

- 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.

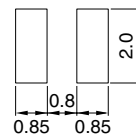
SHAPES AND DIMENSIONS



Dimensions in mm



RECOMMENDED PC BOARD PATTERN



Dimensions in mm

ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μ H)	Inductance tolerance (%)	Test frequency (MHz)	DC resistance (Ω)		Rated current(A)*		Based on temperature rise typ.
				max.	typ.	max.	typ.	
VLS252012T-R47N2R1	0.47	± 30	1	0.056	0.047	3.3	3.7	2.2
VLS252012T-1R0N1R7	1	± 30	1	0.088	0.073	2.4	2.7	1.8
VLS252012T-1R5N1R4	1.5	± 30	1	0.126	0.105	2	2.2	1.5
VLS252012T-2R2M1R3	2.2	± 20	1	0.155	0.129	1.8	2	1.3
VLS252012T-3R3MR99	3.3	± 20	1	0.272	0.227	1.4	1.6	1
VLS252012T-4R7MR81	4.7	± 20	1	0.406	0.338	1.2	1.3	0.8
VLS252012T-6R8MR66	6.8	± 20	1	0.612	0.51	0.99	1.1	0.66
VLS252012T-100MR59	10	± 20	1	0.756	0.63	0.81	0.9	0.59

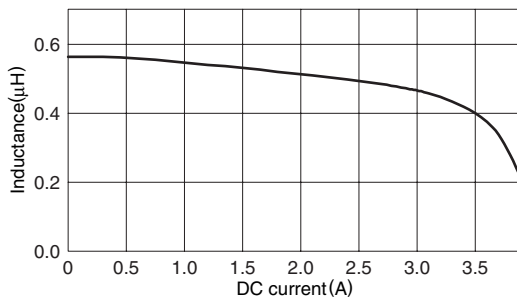
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

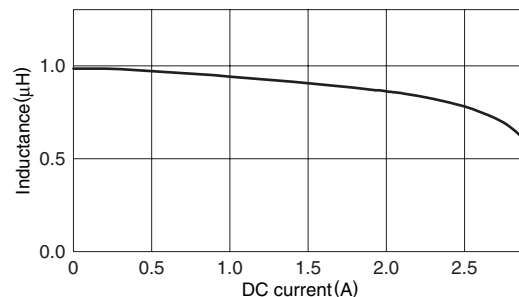
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS252012T-R47N2R1



VLS252012T-1R0N1R7



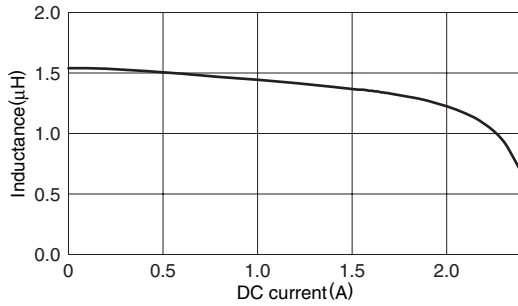
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

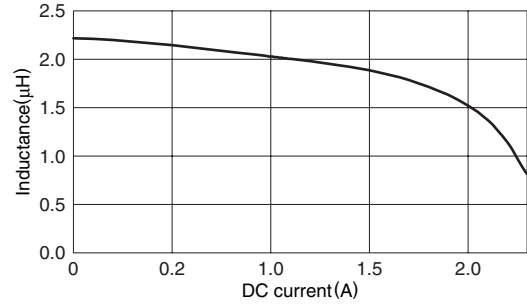
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

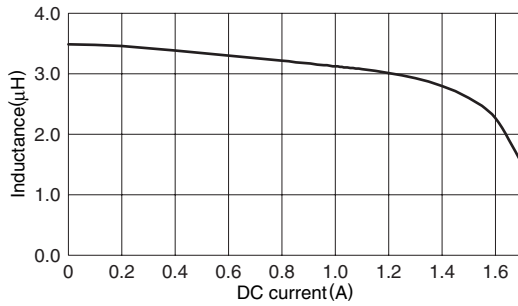
VLS252012T-1R5N1R4



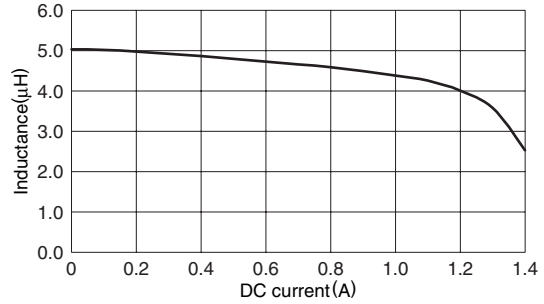
VLS252012T-2R2M1R3



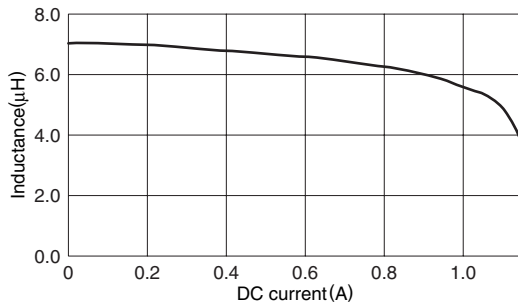
VLS252012T-3R3MR99



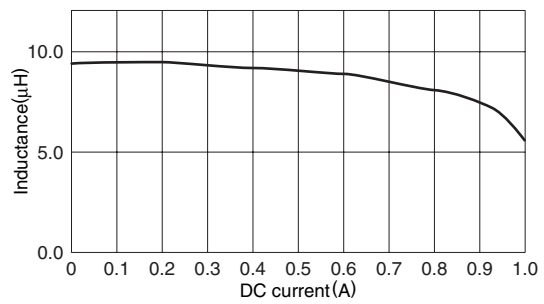
VLS252012T-4R7MR81



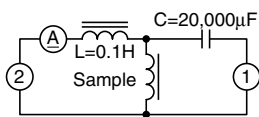
VLS252012T-6R8MR66



VLS252012T-100MR59



TEST CIRCUIT



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

Mouser Electronics

Authorized Distributor

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[TDK:](#)

[VLS252012T-1R0N1R7](#) [VLS252012T-1R5N1R4](#) [VLS252012T-2R2M1R3](#) [VLS252012T-3R3MR99](#) [VLS252012T-4R7MR81](#) [VLS252012T-R47N2R1](#) [VLS252012T-100MR59](#) [VLS252012T-6R8MR66](#)