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

## **Conformity to RoHS Directive**

## VLS Series VLS252012

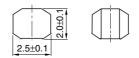
## FEATURES

- 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 real 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



Dimensions in mm

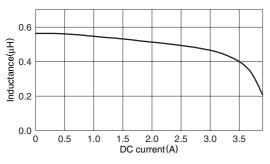
### **ELECTRICAL CHARACTERISTICS**

Part No.	Inductance (μΗ)	Inductance tolerance (%)	Test frequency (MHz)	DC resistance (Ω)		Rated current(A)*		
						Based on inductance change		Based on
				max.	typ.	max.	typ.	temperature rise typ.
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

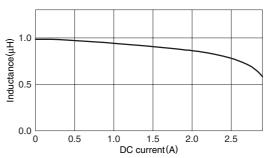
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

## TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS VLS252012T-R47N2R1



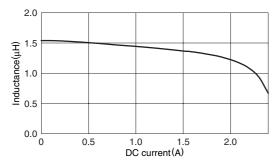
## VLS252012T-1R0N1R7



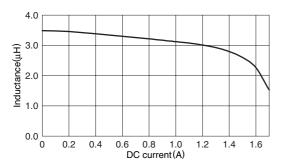
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

· All specifications are subject to change without notice.

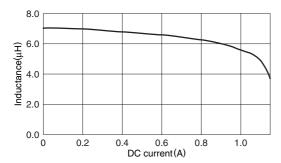
## **TYPICAL ELECTRICAL CHARACTERISTICS** INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS VLS252012T-1R5N1R4



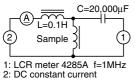
#### VLS252012T-3R3MR99



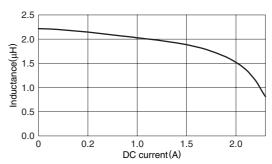
#### VLS252012T-6R8MR66



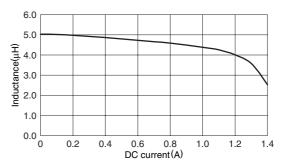
## **TEST CIRCUIT**

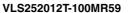


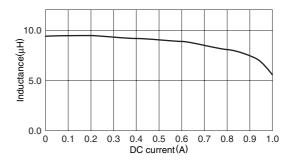
#### VLS252012T-2R2M1R3



#### VLS252012T-4R7MR81







<sup>•</sup> All specifications are subject to change without notice.