



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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

Conformity to RoHS Directive

## VLS Series VLS252012

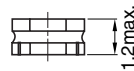
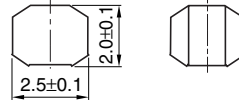
### FEATURES

- 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.

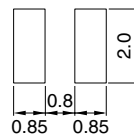
### SHAPES AND DIMENSIONS



Dimensions in mm



### RECOMMENDED PC BOARD PATTERN



Dimensions in mm

### ELECTRICAL CHARACTERISTICS

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

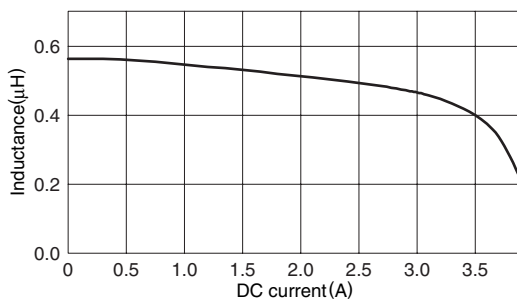
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

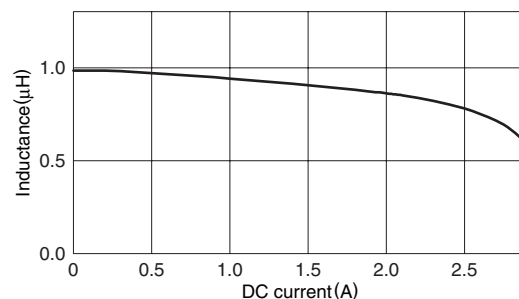
### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

##### VLS252012T-R47N2R1



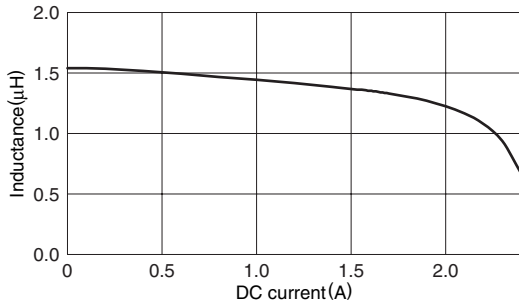
##### VLS252012T-1R0N1R7



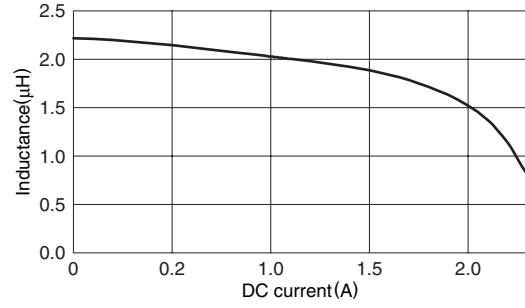
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

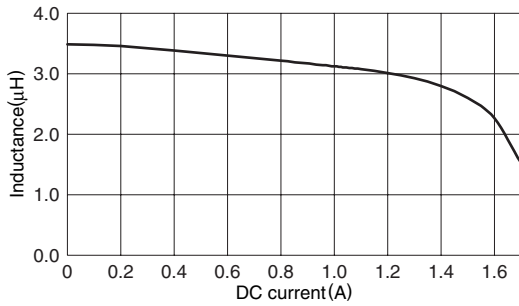
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS**  
**VLS252012T-1R5N1R4**



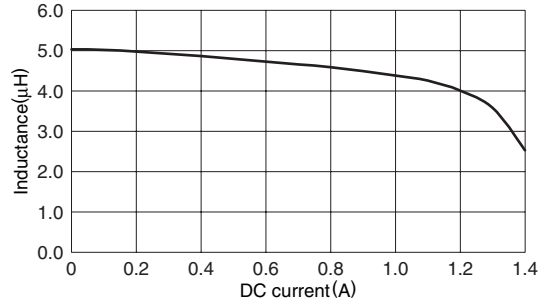
**VLS252012T-2R2M1R3**



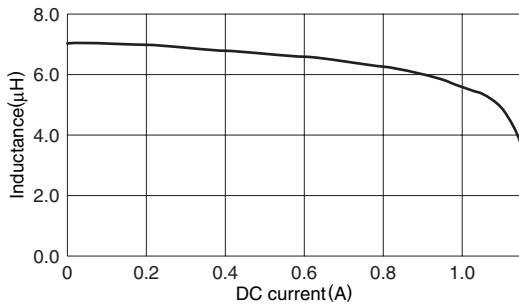
**VLS252012T-3R3MR99**



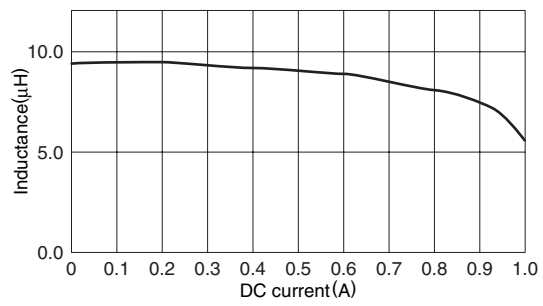
**VLS252012T-4R7MR81**



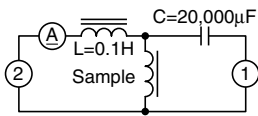
**VLS252012T-6R8MR66**



**VLS252012T-100MR59**



**TEST CIRCUIT**



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