



**THE DATASHEET OF
VLS3015T-470MR31**



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

Conformity to RoHS Directive

VLS Series VLS3015

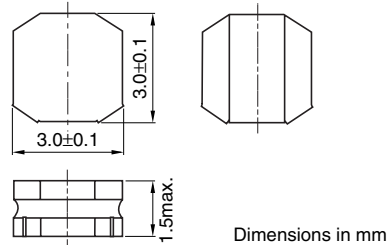
FEATURES

- Miniature size
Mount area: 3×3mm
Height: 1.5mm 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.

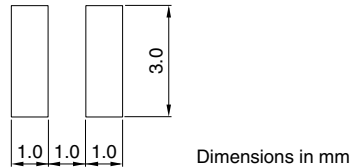
APPLICATIONS

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.	
VLS3015T-1R0N2R0	1	±30	1	0.058	0.048	2	2.2	2.2
VLS3015T-1R5N1R6	1.5	±30	1	0.074	0.062	1.6	1.8	2
VLS3015T-2R2M1R4	2.2	±20	1	0.084	0.07	1.4	1.5	1.8
VLS3015T-3R3M1R2	3.3	±20	1	0.112	0.093	1.2	1.3	1.6
VLS3015T-4R7MR99	4.7	±20	1	0.136	0.113	0.99	1.1	1.4
VLS3015T-6R8MR86	6.8	±20	1	0.211	0.176	0.86	0.96	1.1
VLS3015T-100MR70	10	±20	1	0.276	0.234	0.7	0.78	1
VLS3015T-150MR58	15	±20	1	0.422	0.352	0.58	0.64	0.8
VLS3015T-220MR45	22	±20	1	0.622	0.518	0.45	0.5	0.6
VLS3015T-330MR36	33	±20	1	0.959	0.799	0.36	0.4	0.5
VLS3015T-470MR31	47	±20	1	1.406	1.172	0.31	0.34	0.4

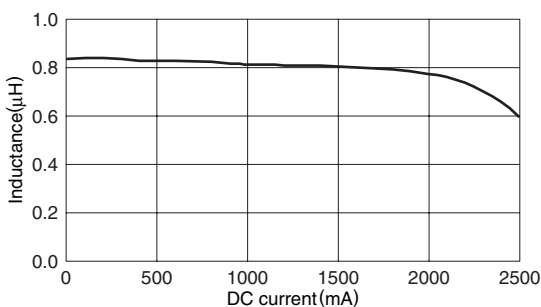
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

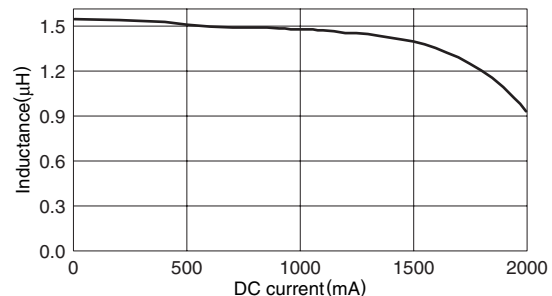
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS3015T-1R0N2R0



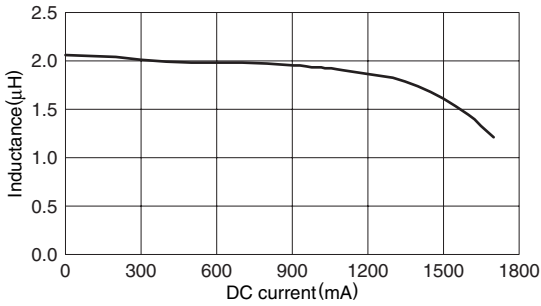
VLS3015T-1R5N1R6



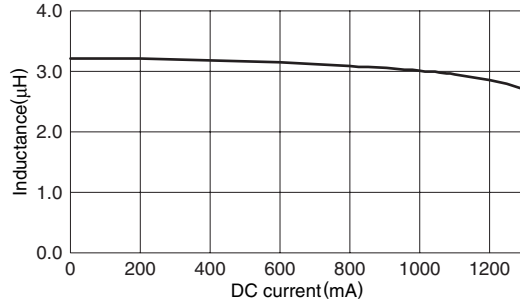
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

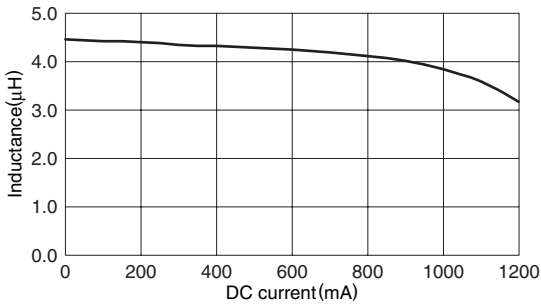
TYPICAL ELECTRICAL CHARACTERISTICS
INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS
VLS3015T-2R2M1R4



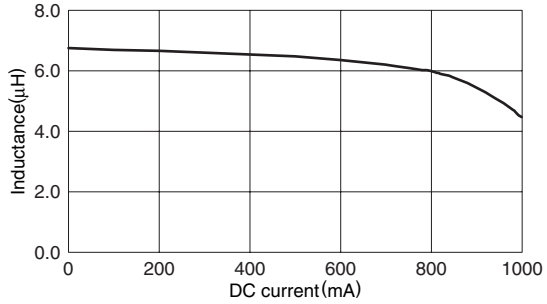
VLS3015T-3R3M1R2



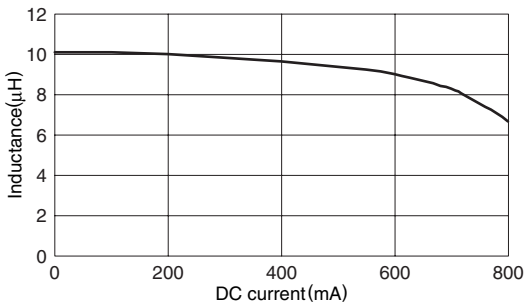
VLS3015T-4R7MR99



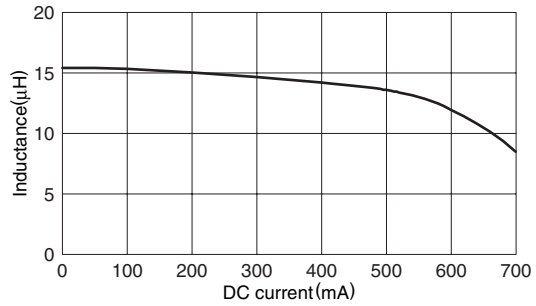
VLS3015T-6R8MR86



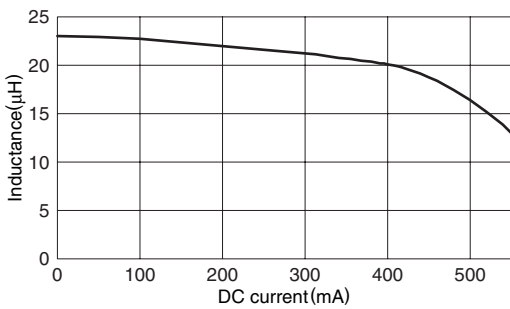
VLS3015T-100MR70



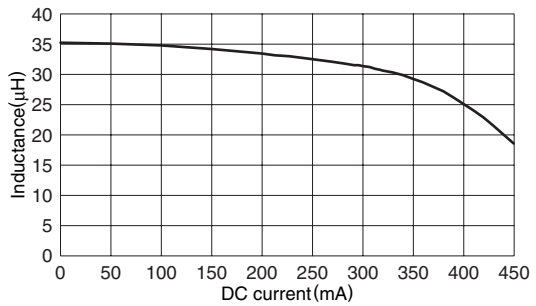
VLS3015T-150MR58



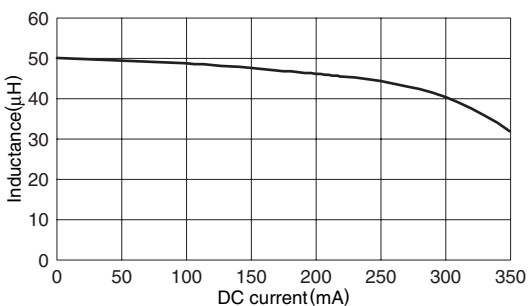
VLS3015T-220MR45



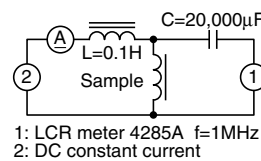
VLS3015T-330MR36



VLS3015T-470MR31





TEST CIRCUIT



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