

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

Conformity to RoHS Directive

VLS Series VLS3015

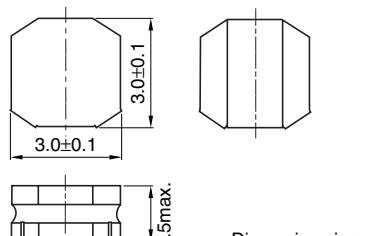
FEATURES

- Miniature size
Mount area: 3x3mm
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

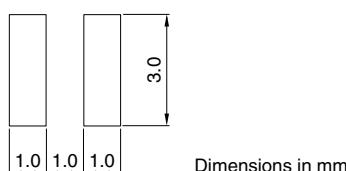
DVCs, DSCs, PDAs, LCD displays, cellular phones, HDDs, etc.

SHAPES AND DIMENSIONS



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. | |
| 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 |

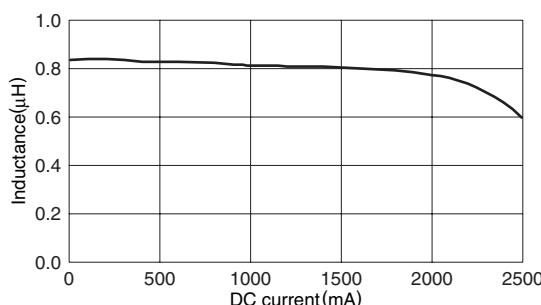
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

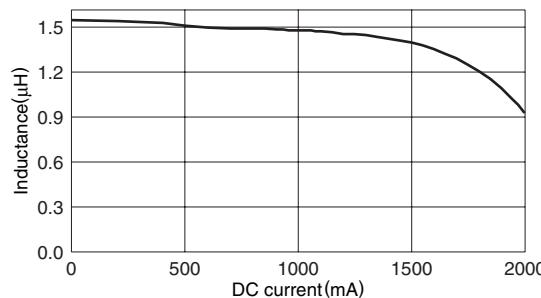
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLS3015T-1R0N2R0

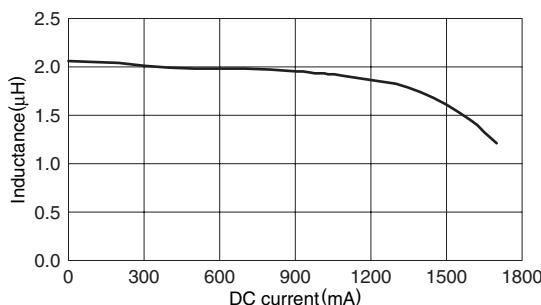
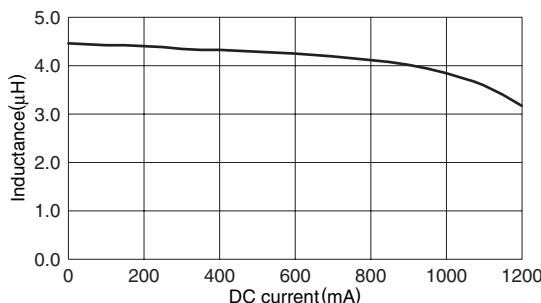
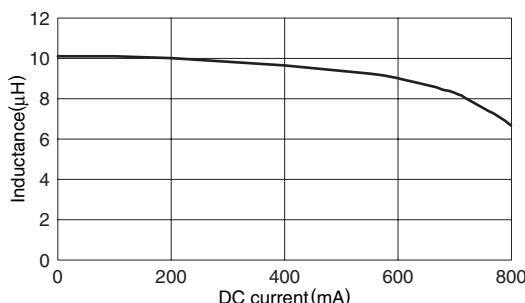
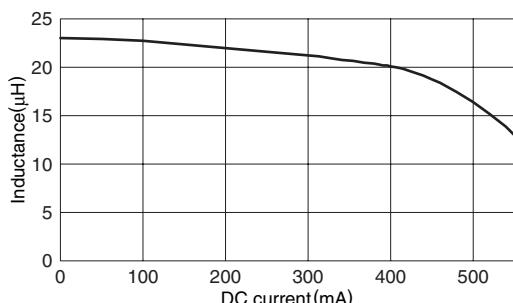
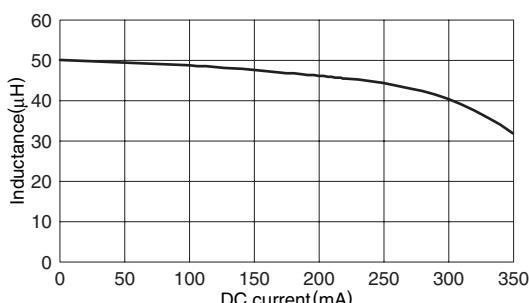
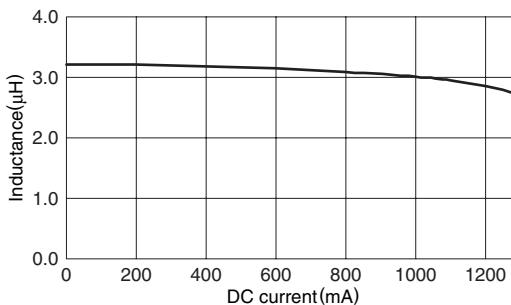
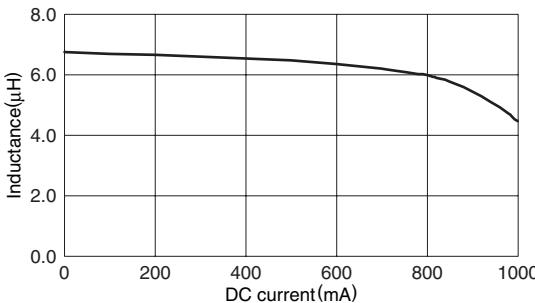
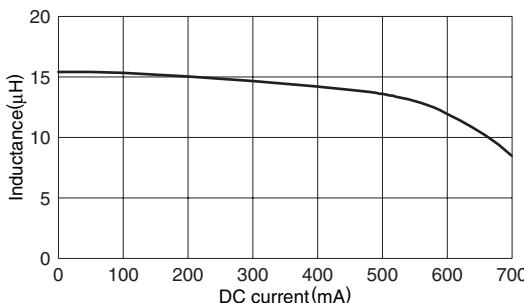
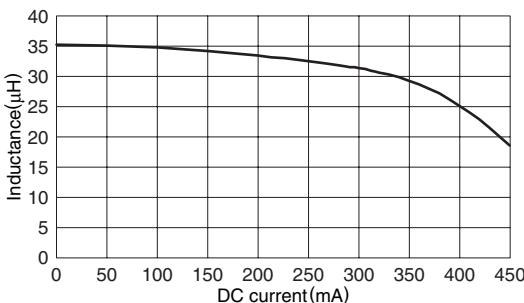
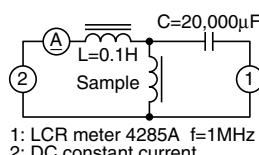


VLS3015T-1R5N1R6



- 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-4R7MR99

VLS3015T-100MR70

VLS3015T-220MR45

VLS3015T-470MR31

VLS3015T-3R3M1R2

VLS3015T-6R8MR86

VLS3015T-150MR58

VLS3015T-330MR36

TEST CIRCUIT


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