

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

Conformity to RoHS Directive

VLS Series VLS252012

FEATURES

· Miniature size

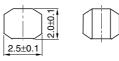
Mount area: 2.5×2mm Height: 1.2mm max.

- 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





Dimensions in mm



RECOMMENDED PC BOARD PATTERN



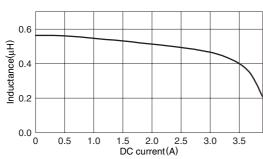
Dimensions in mm

ELECTRICAL CHARACTERISTICS

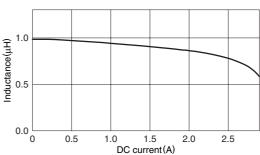
| Part No. | Inductance (µH) | Inductance tolerance (%) | Test frequency (MHz) | DC resistance (Ω) | | Rated current(A)* | | |
|--------------------|--------------------|--------------------------------|-------------------------|-------------------|-------|----------------------------|------|-----------------------|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

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



VLS252012T-1R0N1R7

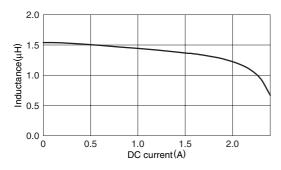


[•] Operating temperature range: -40 to +105°C (Including self-temperature rise)

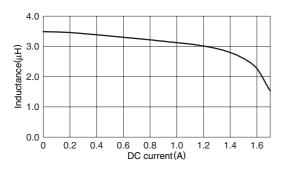
[•] Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

[•] All specifications are subject to change without notice.

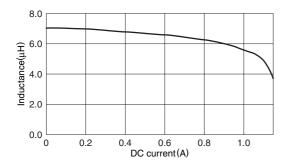
TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS VLS252012T-1R5N1R4



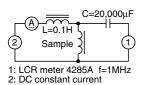
VLS252012T-3R3MR99



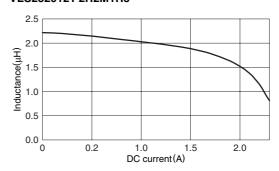
VLS252012T-6R8MR66



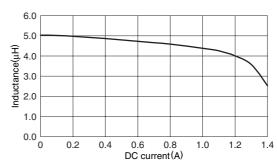
TEST CIRCUIT



VLS252012T-2R2M1R3



VLS252012T-4R7MR81



VLS252012T-100MR59

