

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

Conformity to RoHS Directive

## VLS Series VLS252015

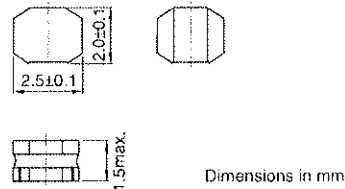
### FEATURES

- Miniature size  
Mount area: 2.5×2mm  
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

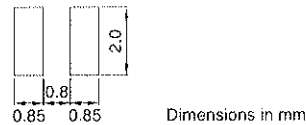
DVCs, DSCs, PDAs, LCD displays, cellular phones, HDDs, etc.

### SHAPES AND DIMENSIONS



Dimensions in mm

### RECOMMENDED PC BOARD PATTERN



Dimensions in mm

### ELECTRICAL CHARACTERISTICS

| Part No.           | Inductance<br>( $\mu\text{H}$ ) | Inductance<br>tolerance<br>(%) | Test frequency<br>(MHz) | DC resistance<br>( $\Omega$ ) |       | Rated current(A)*<br>Based on inductance change |      | Based on<br>temperature rise<br>typ. |
|--------------------|---------------------------------|--------------------------------|-------------------------|-------------------------------|-------|---|------|--------------------------------------|
|                    |                                 |                                |                         | max.                          | typ.  | max.  | typ. |                                      |
|                    |                                 |                                |                         | VLS252015T-1R0N1R7            | 1     | $\pm 30$  | 1    |                                      |
| VLS252015T-1R5N1R4 | 1.5                             | $\pm 30$                       | 1                       | 0.12                          | 0.1   | 1.9   | 2.18 | 1.4                                  |
| VLS252015T-2R2M1R2 | 2.2                             | $\pm 20$                       | 1                       | 0.16                          | 0.133 | 1.7   | 1.9  | 1.2                                  |
| VLS252015T-3R3M1R0 | 3.3                             | $\pm 20$                       | 1                       | 0.218                         | 0.182 | 1.4   | 1.57 | 1                                    |
| VLS252015T-4R7MR89 | 4.7                             | $\pm 20$                       | 1                       | 0.318                         | 0.265 | 1.2   | 1.35 | 0.89                                 |
| VLS252015T-6R8MR73 | 6.8                             | $\pm 20$                       | 1                       | 0.48                          | 0.4   | 1   | 1.13 | 0.73                                 |
| VLS252015T-100MR66 | 10                              | $\pm 20$                       | 1                       | 0.588                         | 0.49  | 0.82  | 0.93 | 0.66                                 |

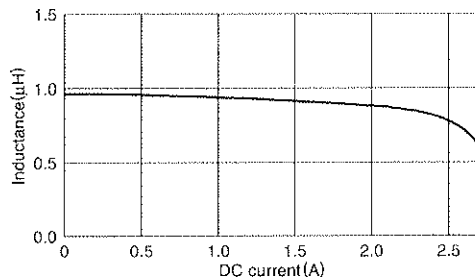
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

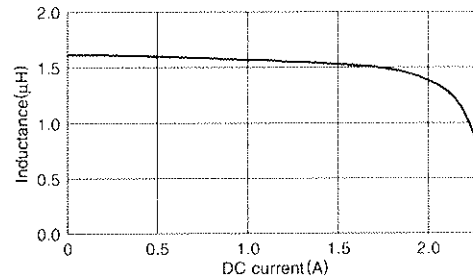
### TYPICAL ELECTRICAL CHARACTERISTICS

#### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

##### VLS252015T-1R0N1R7



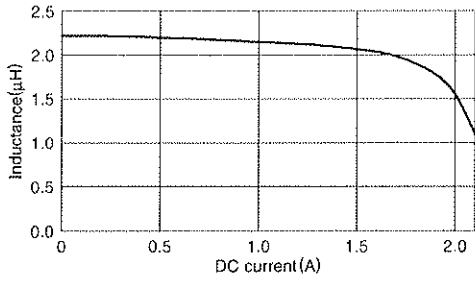
##### VLS252015T-1R5N1R4



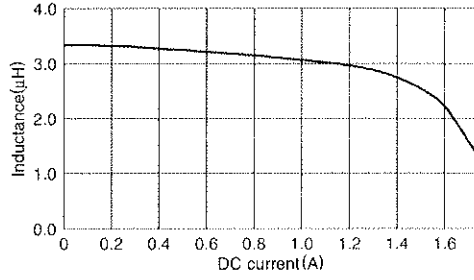
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

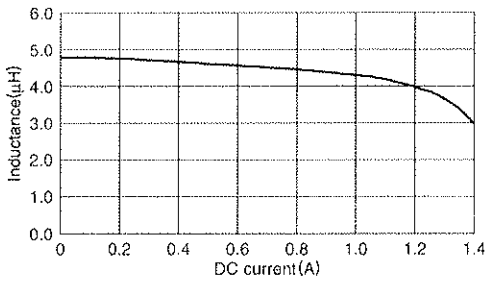
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS**  
**VLS252015T-2R2M1R2**



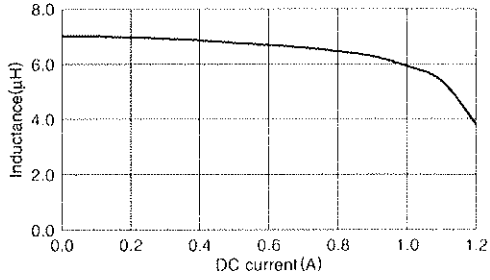
**VLS252015T-3R3M1R0**



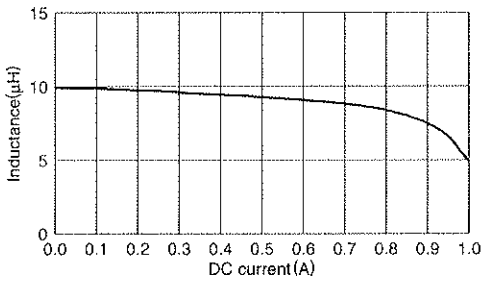
**VLS252015T-4R7MR89**



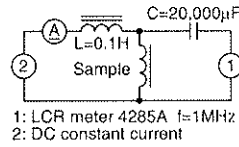
**VLS252015T-6R8MR73**



**VLS252015T-100MR66**



**TEST CIRCUIT**



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