

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

Conformity to RoHS Directive

VLC Series VLC5045

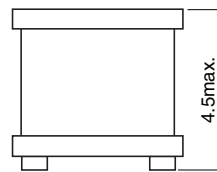
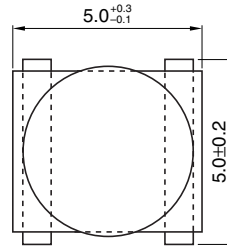
FEATURES

- Miniature size
Mount area: 5×5mm
Height: 4.5mm max.
- Generic use for portable DC to DC converter line
- Available for automatic mounting in tape and reel package.
- The products do not contain lead and support lead-free soldering.

APPLICATIONS

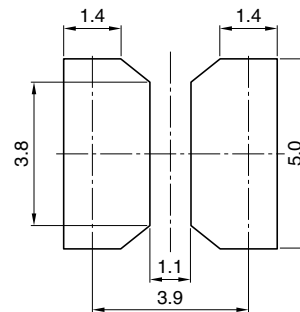
DC to DC converters for LCD-TV, printers, note PC, etc.

SHAPES AND DIMENSIONS



Dimensions in mm

RECOMMENDED PC BOARD PATTERN



Dimensions in mm

ELECTRICAL CHARACTERISTICS

| Part No. | Inductance (μH) | Inductance tolerance | Test frequency (kHz) | DC resistance(Ω) | | Rated current(A)* | |
|---------------|-----------------|----------------------|----------------------|------------------|-------|---------------------------------|--------------------------------|
| | | | | max. | typ. | Based on inductance change max. | Based on temperature rise typ. |
| VLC5045T-1R5N | 1.5 | ±30% | 100 | 0.018 | 0.014 | 5.5 | 4.6 |
| VLC5045T-2R2N | 2.2 | ±30% | 100 | 0.022 | 0.017 | 5.0 | 4.3 |
| VLC5045T-3R3N | 3.3 | ±30% | 100 | 0.029 | 0.023 | 4.0 | 4.0 |
| VLC5045T-4R7M | 4.7 | ±20% | 100 | 0.034 | 0.028 | 3.3 | 3.2 |
| VLC5045T-6R8M | 6.8 | ±20% | 100 | 0.046 | 0.038 | 2.7 | 2.8 |
| VLC5045T-100M | 10 | ±20% | 100 | 0.066 | 0.055 | 2.1 | 2.3 |
| VLC5045T-150M | 15 | ±20% | 100 | 0.100 | 0.083 | 1.8 | 1.9 |
| VLC5045T-220M | 22 | ±20% | 100 | 0.17 | 0.13 | 1.6 | 1.5 |
| VLC5045T-330M | 33 | ±20% | 100 | 0.23 | 0.19 | 1.2 | 1.1 |

* 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)

• 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.

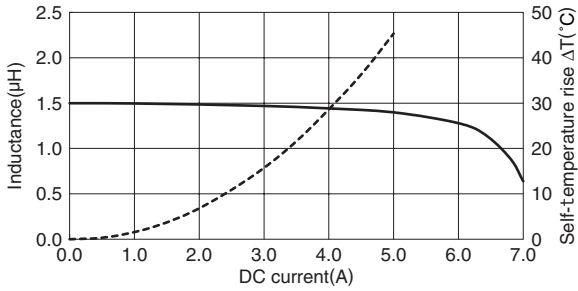
• All specifications are subject to change without notice.

TYPICAL ELECTRICAL CHARACTERISTICS

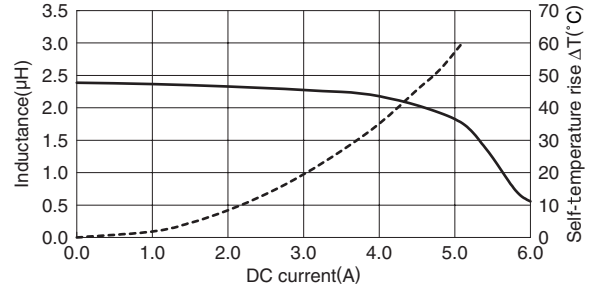
INDUCTANCE CHANGE and TEMPERATURE RISE vs. I_{dc} SUPERPOSITION

— I_{dc} vs. Inductance(μH)
- - - I_{dc} vs. ΔT(°C)

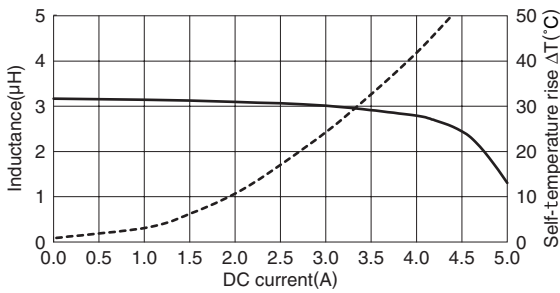
VLC5045T-1R5N



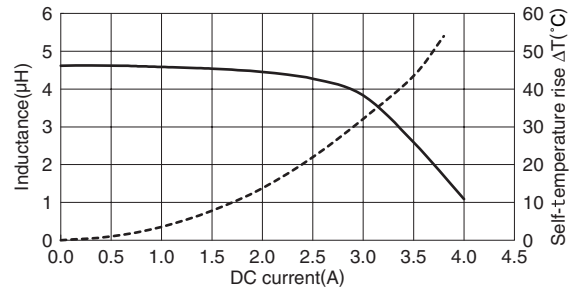
VLC5045T-2R2N



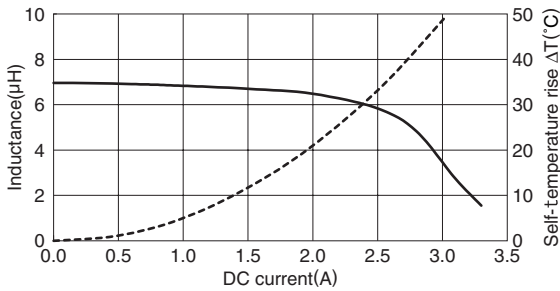
VLC5045T-3R3N



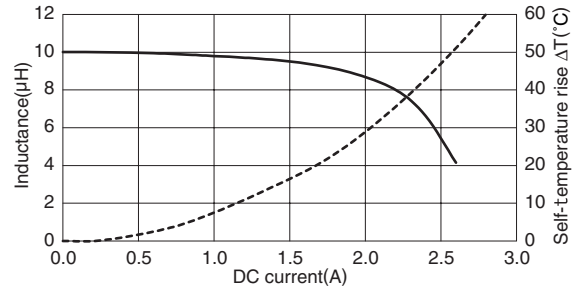
VLC5045T-4R7M



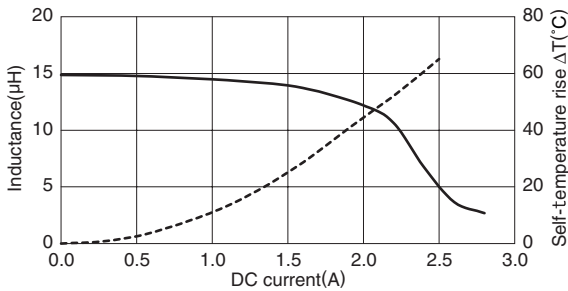
VLC5045T-6R8M



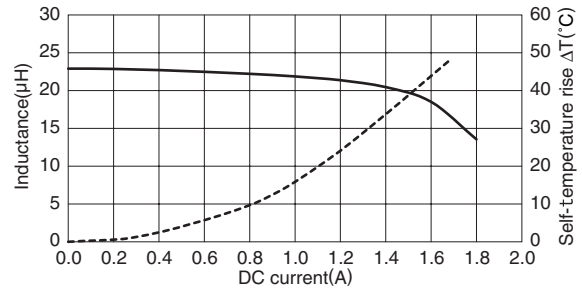
VLC5045T-100M



VLC5045T-150M



VLC5045T-220M



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