

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

Conformity to RoHS Directive

## VLC Series VLC5045

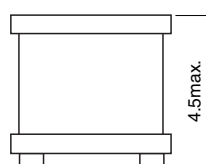
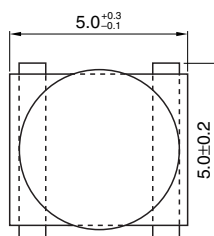
### FEATURES

- 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

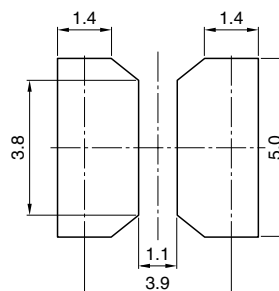
DC to DC converters for LCD-TV, printers, note PC, etc.

### SHAPES AND DIMENSIONS

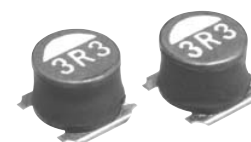


Dimensions in mm

### 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.

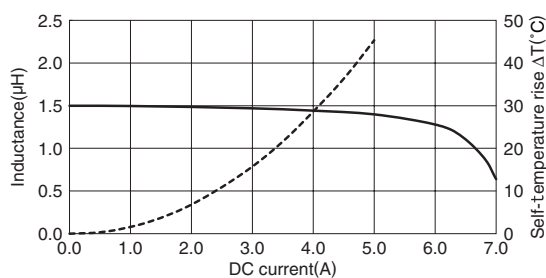
- All specifications are subject to change without notice.

### TYPICAL ELECTRICAL CHARACTERISTICS

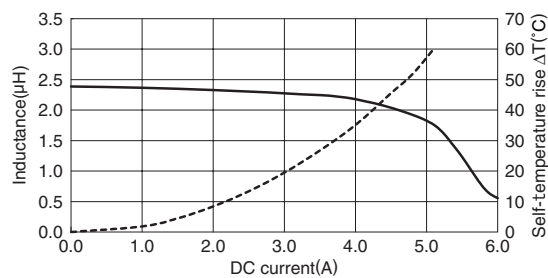
#### INDUCTANCE CHANGE and TEMPERATURE RISE vs. I<sub>dc</sub> SUPERPOSITION

— I<sub>dc</sub> vs. Inductance(μH)  
- - - I<sub>dc</sub> vs. ΔT(°C)

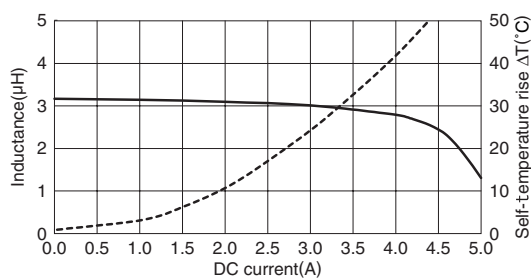
**VLC5045T-1R5N**



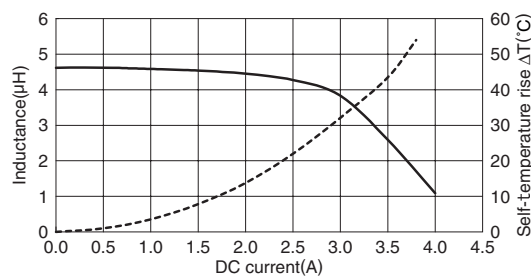
**VLC5045T-2R2N**



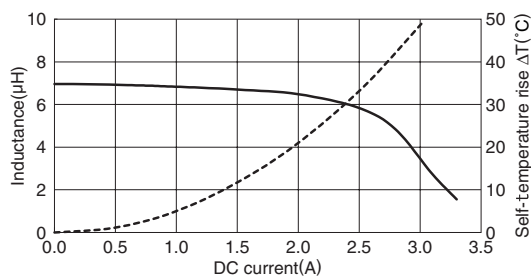
**VLC5045T-3R3N**



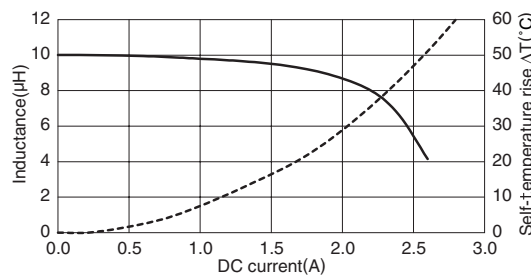
**VLC5045T-4R7M**



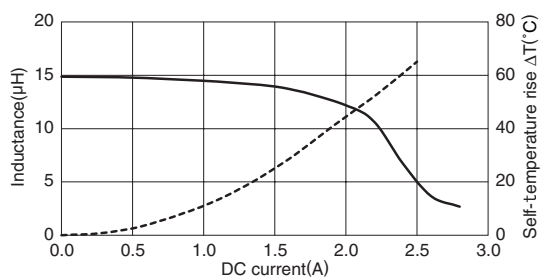
**VLC5045T-6R8M**



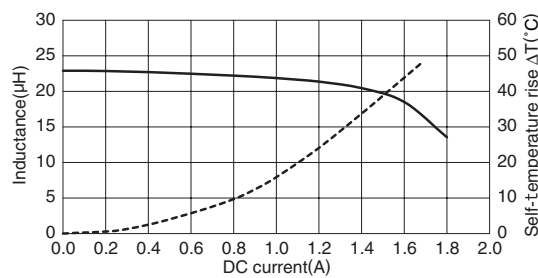
**VLC5045T-100M**



**VLC5045T-150M**



**VLC5045T-220M**



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