



**THE DATASHEET OF  
VLC6045T-470M**



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

Conformity to RoHS Directive

## VLC Series VLC6045

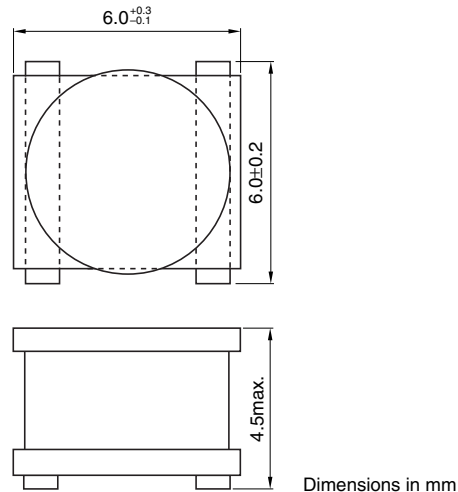
### FEATURES

- Miniature size  
Mount area: 6×6mm  
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.

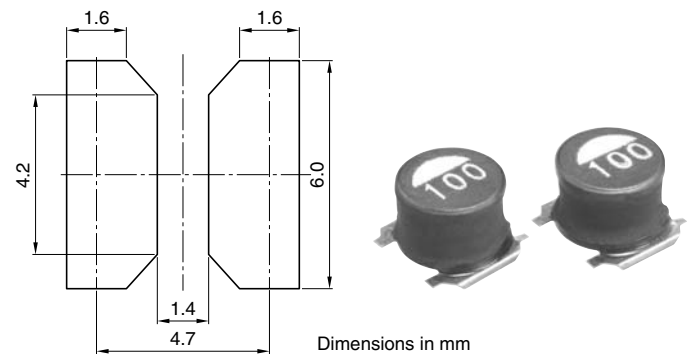
### APPLICATIONS

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

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

Part No.	Inductance ( $\mu$ H)	Inductance tolerance	Test frequency (kHz)	DC resistance( $\Omega$ )		Rated current(A)*	
				max.	typ.	Based on inductance change max.	Based on temperature rise typ.
VLC6045T-1R5N	1.5	$\pm 30\%$	100	0.015	0.011	5.7	5.1
VLC6045T-2R2N	2.2	$\pm 30\%$	100	0.017	0.013	5.5	4.8
VLC6045T-3R3N	3.3	$\pm 30\%$	100	0.020	0.017	4.7	4.2
VLC6045T-4R7M	4.7	$\pm 20\%$	100	0.027	0.023	3.8	3.8
VLC6045T-6R8M	6.8	$\pm 20\%$	100	0.041	0.035	3.0	2.9
VLC6045T-100M	10	$\pm 20\%$	100	0.058	0.046	2.5	2.5
VLC6045T-150M	15	$\pm 20\%$	100	0.091	0.076	2.1	2.1
VLC6045T-220M	22	$\pm 20\%$	100	0.13	0.10	1.7	1.7
VLC6045T-330M	33	$\pm 20\%$	100	0.18	0.15	1.4	1.4
VLC6045T-470M	47	$\pm 20\%$	100	0.26	0.22	1.2	1.1
VLC6045T-680M	68	$\pm 20\%$	100	0.41	0.34	0.9	1.0
VLC6045T-101M	100	$\pm 20\%$	100	0.59	0.49	0.8	0.7
VLC6045T-151M	150	$\pm 20\%$	100	0.75	0.63	0.6	0.6

\* 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.

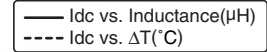
- Operating temperature range: -40 to +105°C (Including self-temperature rise)

• 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.

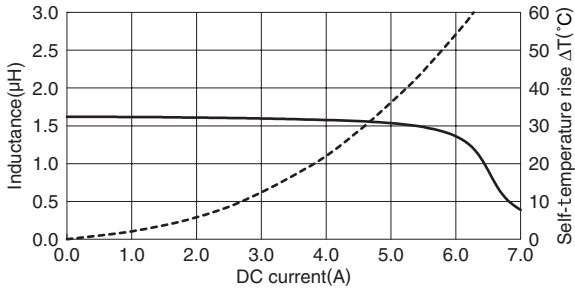
• All specifications are subject to change without notice.

### TYPICAL ELECTRICAL CHARACTERISTICS

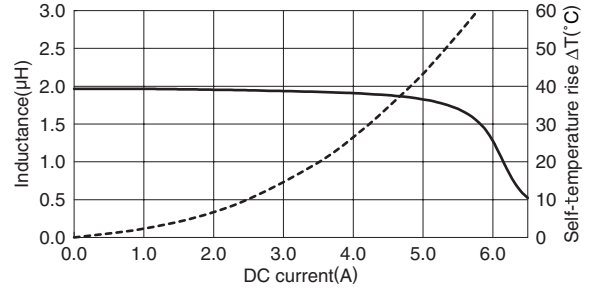
#### INDUCTANCE CHANGE and TEMPERATURE RISE vs. I<sub>dc</sub> SUPERPOSITION



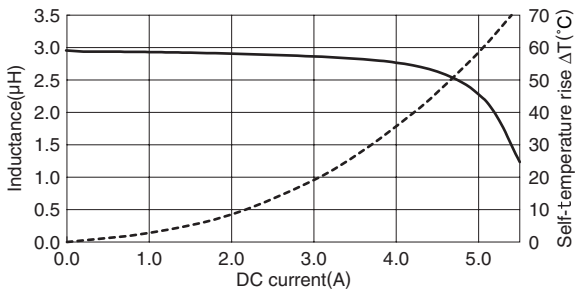
**VLC6045T-1R5N**



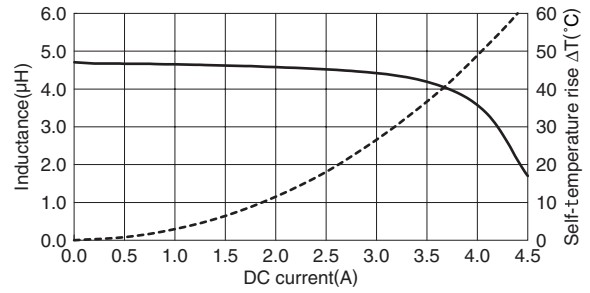
**VLC6045T-2R2N**



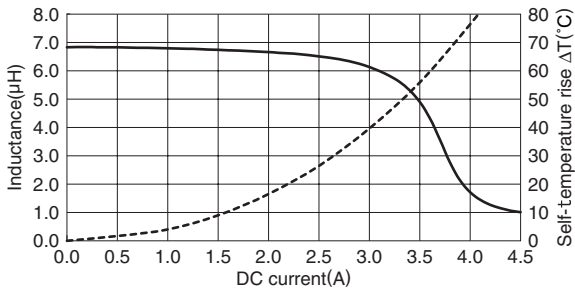
**VLC6045T-3R3N**



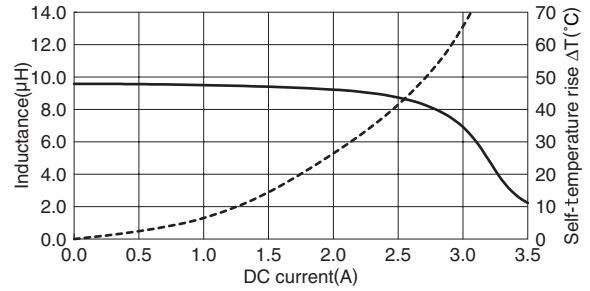
**VLC6045T-4R7M**



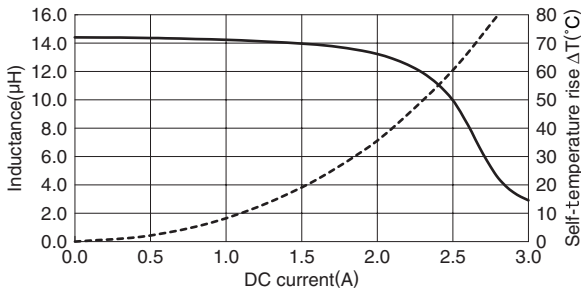
**VLC6045T-6R8M**



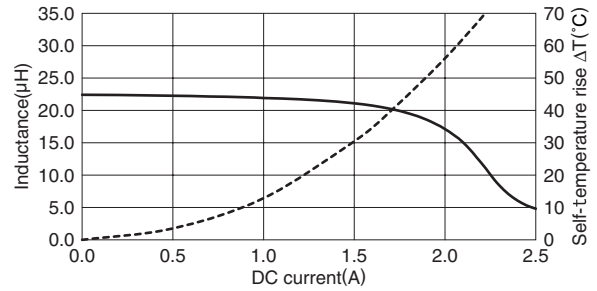
**VLC6045T-100M**



**VLC6045T-150M**



**VLC6045T-220M**



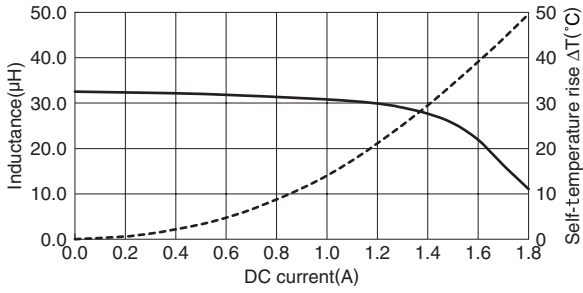
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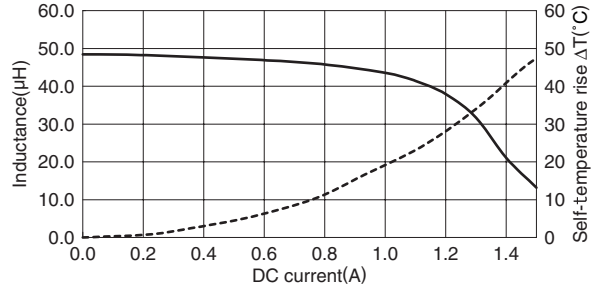
#### INDUCTANCE CHANGE and TEMPERATURE RISE vs. I<sub>dc</sub> SUPERPOSITION

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

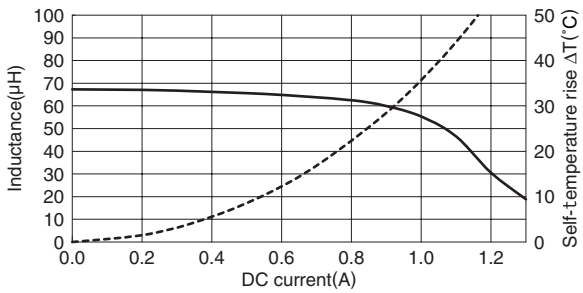
**VLC6045T-330M**



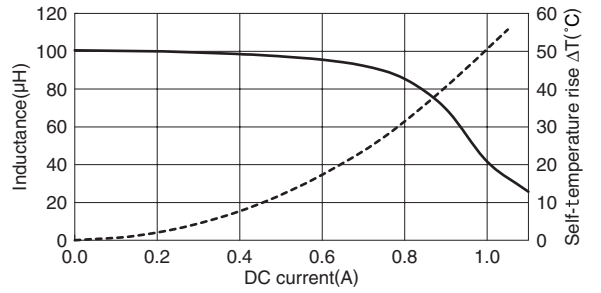
**VLC6045T-470M**



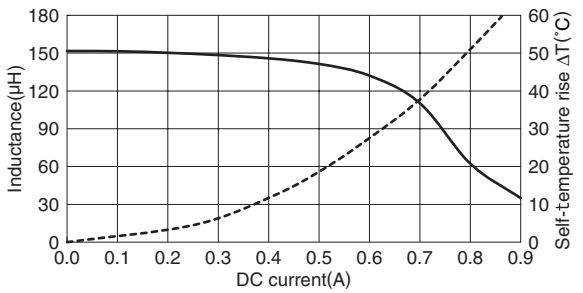
**VLC6045T-680M**



**VLC6045T-101M**





**VLC6045T-151M**



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## Looking for pricing, stock, or lifecycle information?

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-  [TDK Corporation Information](#)

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