TDK

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

Conformity to RoHS Directive

VLC Series VLC6045

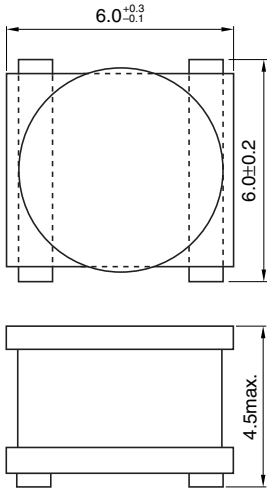
FEATURES

- 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 real package.
- The products do not contain lead and support lead-free soldering.

APPLICATIONS

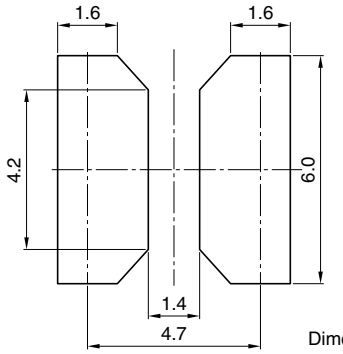
DC to DC converters for LCD-TV, printers, note PC, etc.

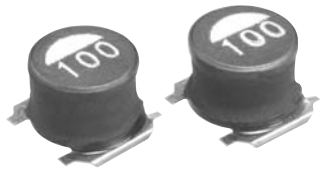
SHAPES AND DIMENSIONS



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.
VLC6045T-1R5N	1.5	±30%	100	0.015	0.011	5.7	5.1
VLC6045T-2R2N	2.2	±30%	100	0.017	0.013	5.5	4.8
VLC6045T-3R3N	3.3	±30%	100	0.020	0.017	4.7	4.2
VLC6045T-4R7M	4.7	±20%	100	0.027	0.023	3.8	3.8
VLC6045T-6R8M	6.8	±20%	100	0.041	0.035	3.0	2.9
VLC6045T-100M	10	±20%	100	0.058	0.046	2.5	2.5
VLC6045T-150M	15	±20%	100	0.091	0.076	2.1	2.1
VLC6045T-220M	22	±20%	100	0.13	0.10	1.7	1.7
VLC6045T-330M	33	±20%	100	0.18	0.15	1.4	1.4
VLC6045T-470M	47	±20%	100	0.26	0.22	1.2	1.1
VLC6045T-680M	68	±20%	100	0.41	0.34	0.9	1.0
VLC6045T-101M	100	±20%	100	0.59	0.49	0.8	0.7
VLC6045T-151M	150	±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.

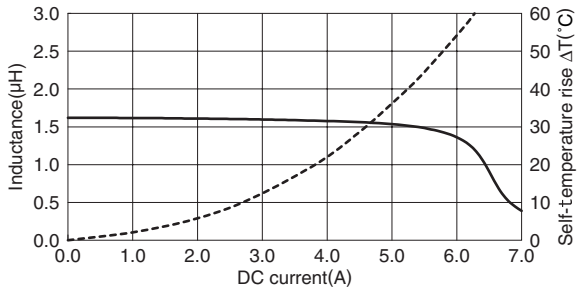
• All specifications are subject to change without notice.

TYPICAL ELECTRICAL CHARACTERISTICS

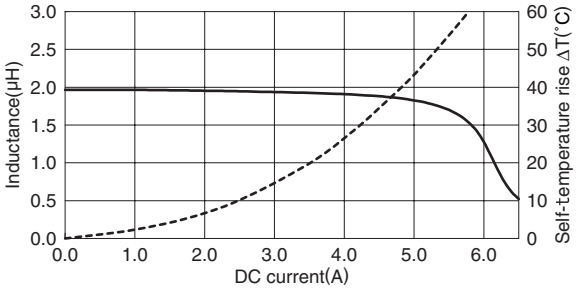
INDUCTANCE CHANGE and TEMPERATURE RISE vs. Idc SUPERPOSITION

Idc vs. Inductance(μH)
Idc vs. ΔT(˚C)

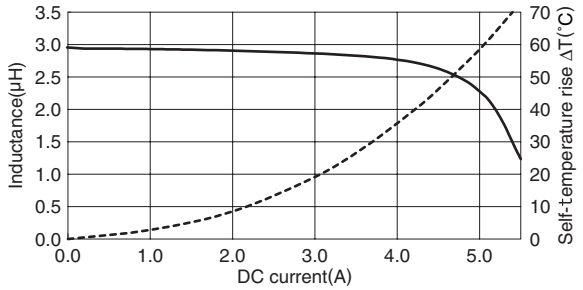
VLC6045T-1R5N



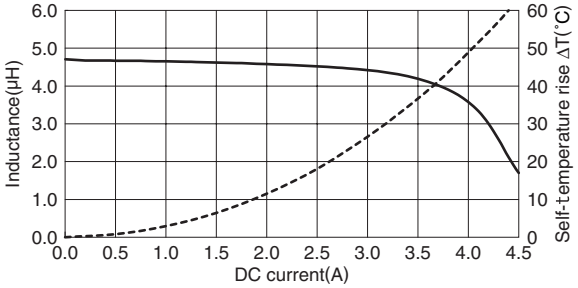
VLC6045T-2R2N



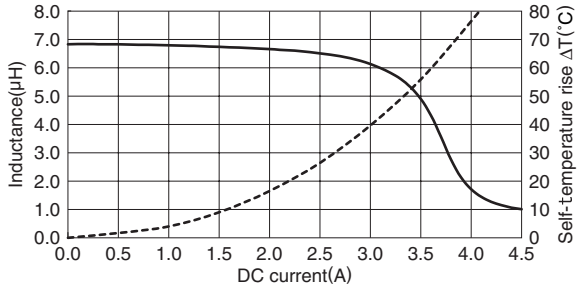
VLC6045T-3R3N



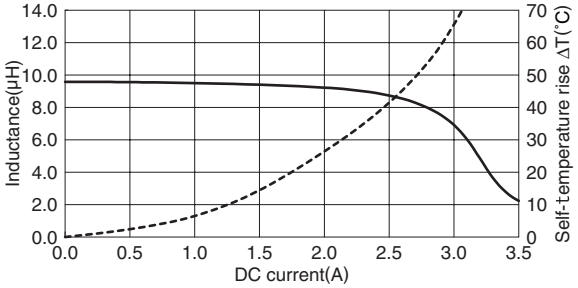
VLC6045T-4R7M



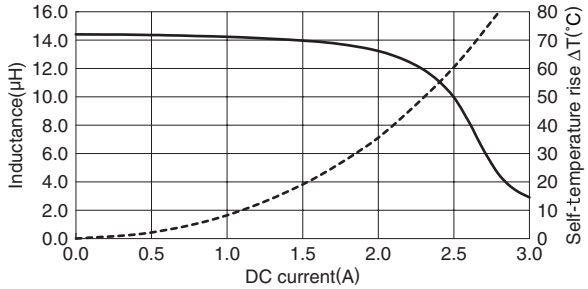
VLC6045T-6R8M



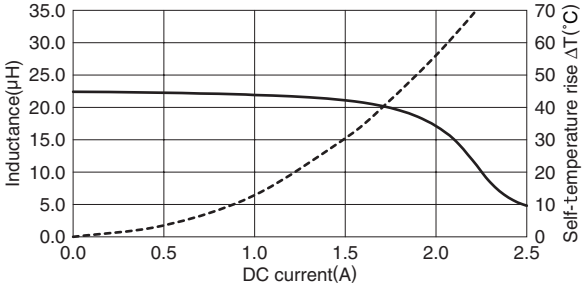
VLC6045T-100M



VLC6045T-150M

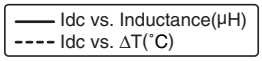


VLC6045T-220M

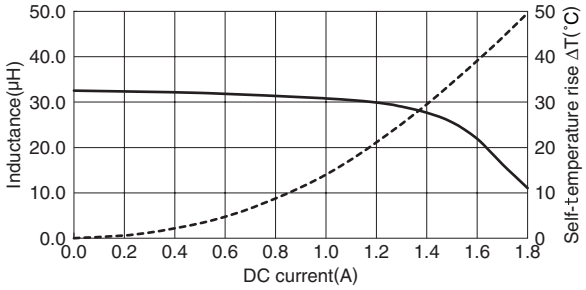


TYPICAL ELECTRICAL CHARACTERISTICS

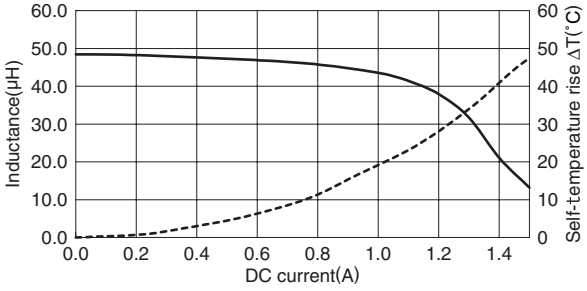
INDUCTANCE CHANGE and TEMPERATURE RISE vs. Idc SUPERPOSITION



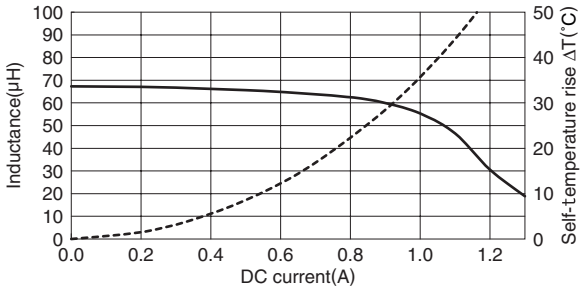
VLC6045T-330M



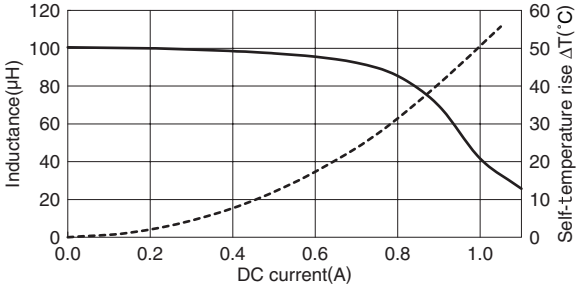
VLC6045T-470M



VLC6045T-680M



VLC6045T-101M



VLC6045T-151M

