TDK

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

Conformity to RoHS Directive

VLC Series VLC5020

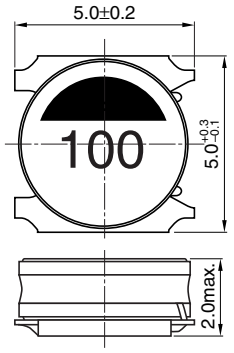
FEATURES

- Miniature size
  Mount area: 5×5mm
  Height: 2.0mm 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.
- It is a product conforming to halogen-free.

APPLICATIONS

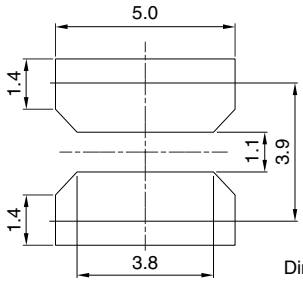
DC to DC converters for LCD TVs, printers, note PCs, etc.

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.
VLC5020T-R47N	0.47	±30	100	0.018	0.015	5.6	5.4
VLC5020T-1R2N	1.2	±30	100	0.030	0.026	3.8	4.0
VLC5020T-1R5N	1.5	±30	100	0.038	0.032	3.3	3.9
VLC5020T-2R2N	2.2	±30	100	0.045	0.038	3.0	3.7
VLC5020T-3R3N	3.3	±30	100	0.071	0.060	2.4	2.9
VLC5020T-4R7N	4.7	±30	100	0.097	0.081	2.0	2.4
VLC5020T-100M	10	±20	100	0.186	0.156	1.3	1.8

* 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)
- Test equipment Inductance: 4285A PRECISION LCR METER, HP or equivalant
  Rdc: MILLIOHM METER VP-2941A, MATSUSHITA or equivalant
  L(Idc1): 4285A PRECISION LCR METER, HP with 42841A BIAS CURRENT SOURCE, HP/42842C TEST FIXTURE, HP or equivalant

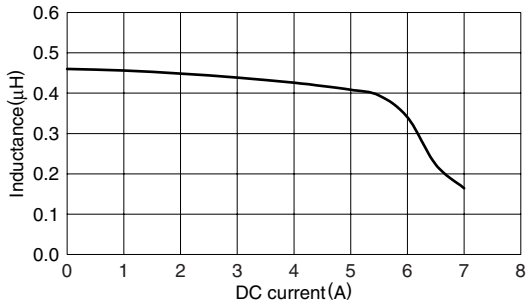
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

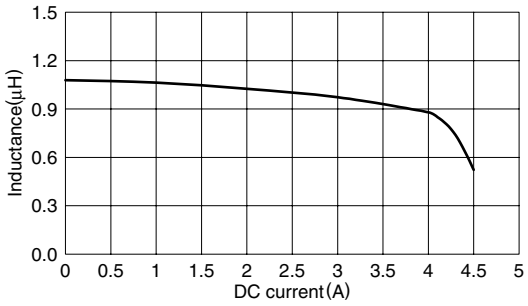
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

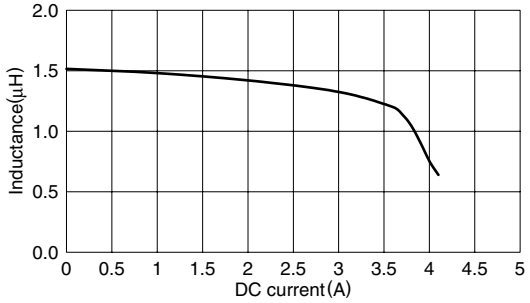
VLC5020T-R47N



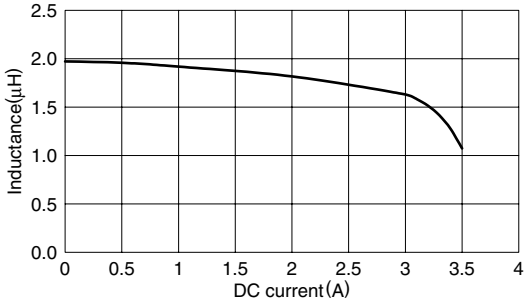
VLC5020T-1R2N



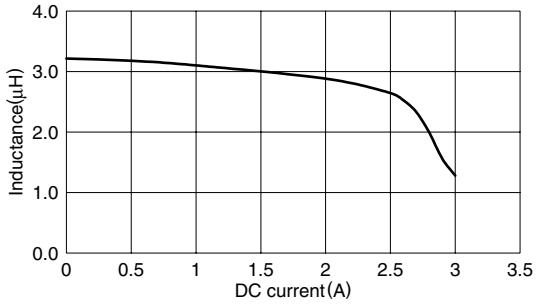
VLC5020T-1R5N



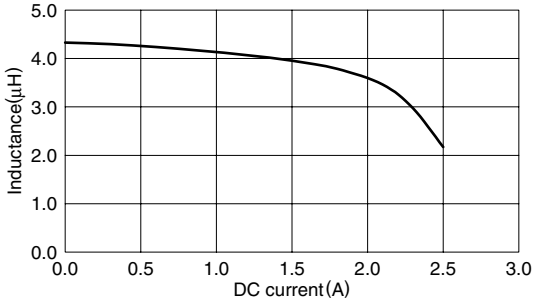
VLC5020T-2R2N



VLC5020T-3R3N



VLC5020T-4R7N



VLC5020T-100M

