

# Wound Type SMD Inductors (Coils)

For DC to DC Converters

VLP (Closed Magnetic Circuit Core) series

Type: VLP8040

Issue date: November 2010

- All specifications are subject to change without notice.
  - 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.
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# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## VLP Series VLP8040

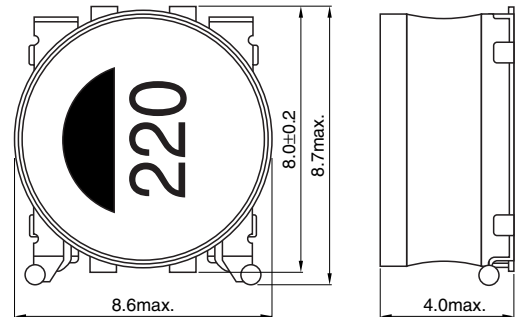
### FEATURES

- Miniature size  
Mount area: 8×7.7mm  
Height: 4.0mm 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

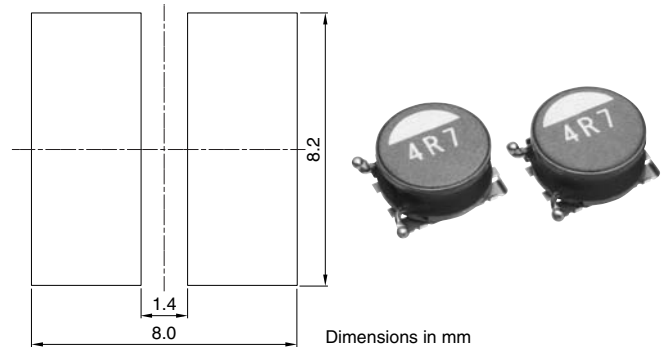
DC to DC converters for LCD TVs, printers, note PCs, etc.

### SHAPES AND DIMENSIONS



Dimensions in mm

### RECOMMENDED PC BOARD PATTERN



Dimensions in mm

### ELECTRICAL CHARACTERISTICS

Part No.	Inductance ( $\mu\text{H}$ )	Inductance tolerance (%)	Test frequency (kHz)	DC resistance ( $\Omega$ )		Rated current(A)*	
				max.	typ.	Based on inductance change max.	Based on temperature rise typ.
VLP8040T-1R0N	1.0	$\pm 30$	100	0.011	0.008	9.4	7.0
VLP8040T-1R5N	1.5	$\pm 30$	100	0.013	0.010	7.8	6.7
VLP8040T-2R2N	2.2	$\pm 30$	100	0.015	0.012	6.7	6.2
VLP8040T-3R3N	3.3	$\pm 30$	100	0.020	0.015	5.2	5.2
VLP8040T-4R7M	4.7	$\pm 20$	100	0.025	0.019	4.4	4.5
VLP8040T-6R8M	6.8	$\pm 20$	100	0.032	0.024	3.6	4.0
VLP8040T-100M	10	$\pm 20$	100	0.038	0.032	3.2	3.5
VLP8040T-150M	15	$\pm 20$	100	0.058	0.048	2.6	2.9
VLP8040T-220M	22	$\pm 20$	100	0.075	0.062	2.2	2.5
VLP8040T-330M	33	$\pm 20$	100	0.11	0.090	1.8	2.1
VLP8040T-470M	47	$\pm 20$	100	0.16	0.13	1.5	1.7
VLP8040T-680M	68	$\pm 20$	100	0.23	0.19	1.2	1.4
VLP8040T-101M	100	$\pm 20$	100	0.33	0.28	1.0	1.2
VLP8040T-151M	150	$\pm 20$	100	0.49	0.41	0.8	1.0
VLP8040T-221M	220	$\pm 20$	100	0.73	0.61	0.6	0.8
VLP8040T-331M	330	$\pm 20$	100	1.1	0.89	0.5	0.7
VLP8040T-681M	680	$\pm 20$	100	2.2	1.8	0.3	0.5

\* 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.

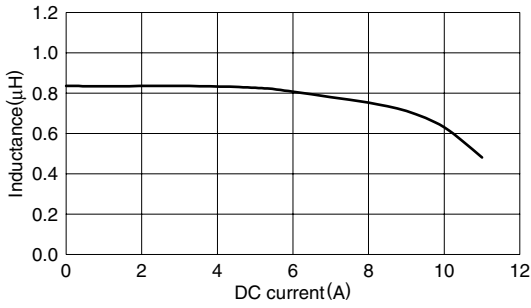
• Operating temperature range: -40 to +105°C (Including self-temperature rise)

• Test equipment Inductance: 4285A PRECISION LCR METER, HP or equivalent  
Rdc: MILLIOHM METER VP-2941A, MATSUSHITA or equivalent  
L(ldc1): 4285A PRECISION LCR METER, HP with 42841A BIAS CURRENT SOURCE, HP/42842C TEST FIXTURE, HP or equivalent

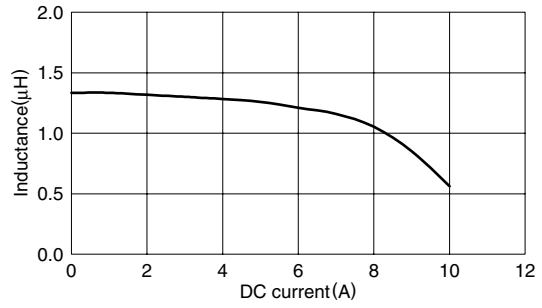
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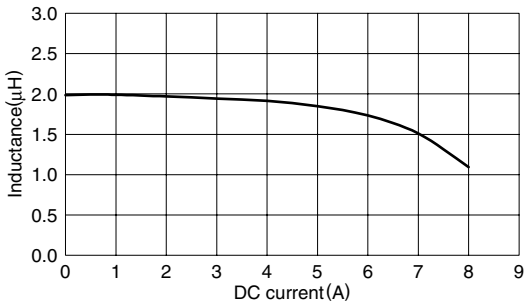
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS**  
**VLP8040T-1R0N**



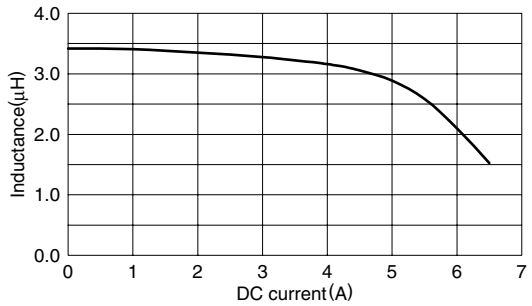
**VLP8040T-1R5N**



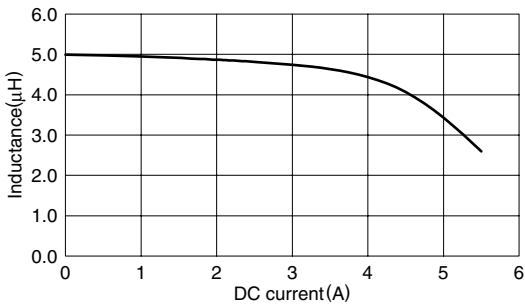
**VLP8040T-2R2N**



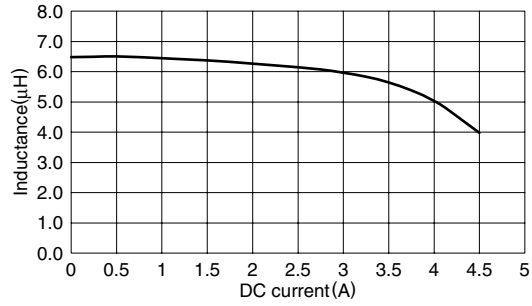
**VLP8040T-3R3N**



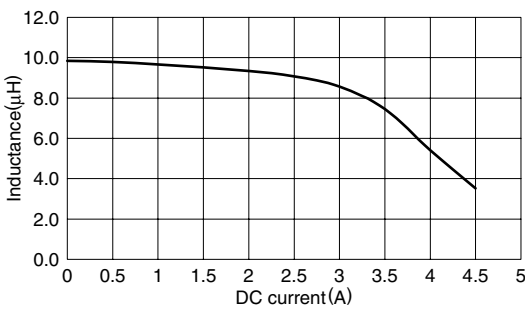
**VVLP8040T-4R7M**



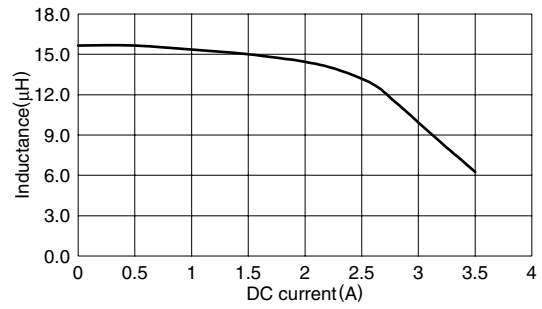
**VLP8040T-6R8M**



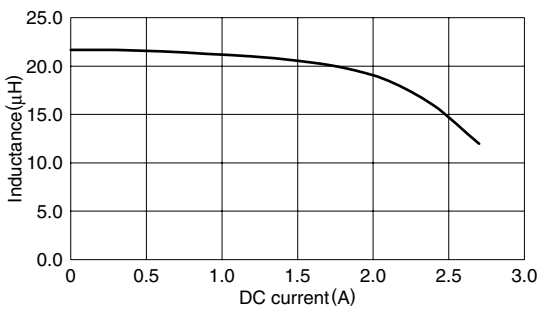
**VLP8040T-100M**



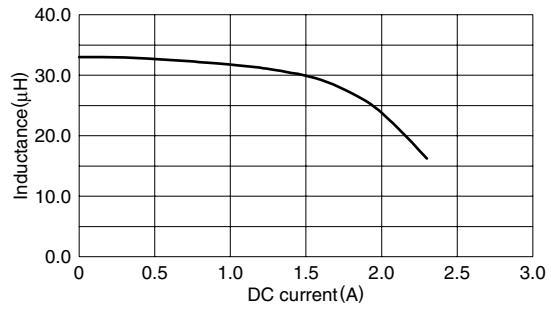
**VLP8040T-150M**



**VLP8040T-220M**

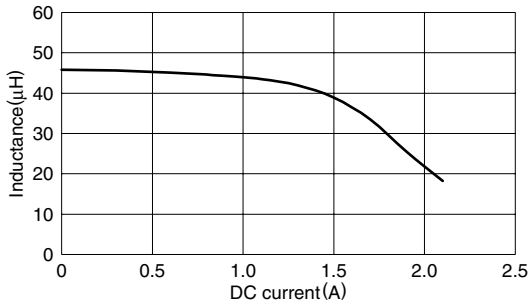


**VLP8040T-330M**

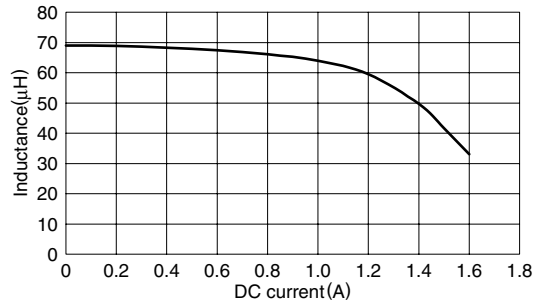


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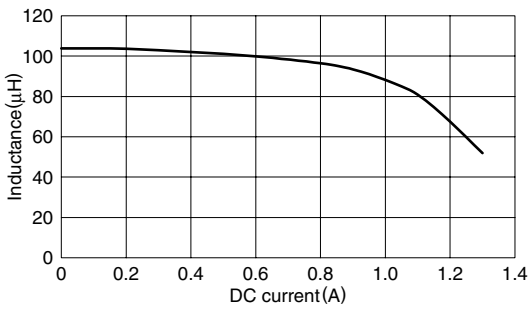
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS**  
**VLP8040T-470M**



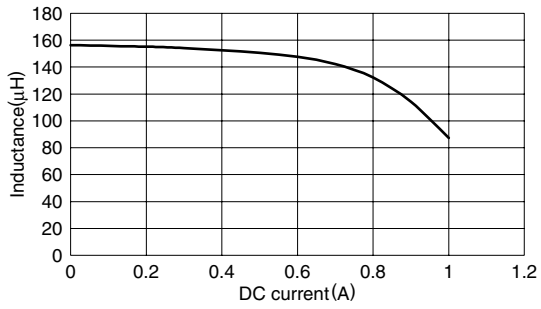
**VLP8040T-680M**



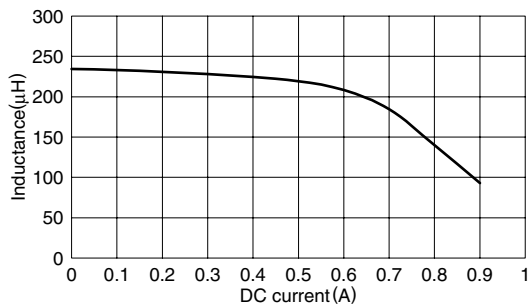
**VLP8040T-101M**



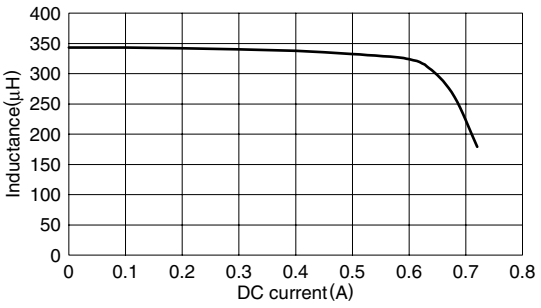
**VLP8040T-151M**



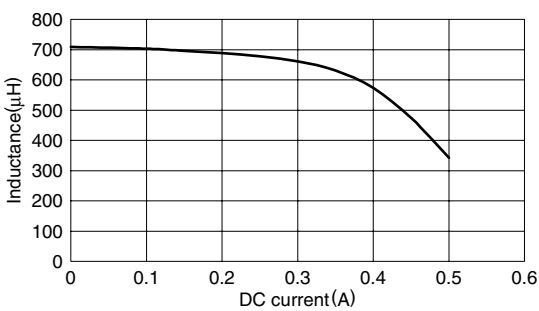
**VLP8040T-221M**



**VLP8040T-331M**



**VLP8040T-681M**



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