

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

Conformity to RoHS Directive

VLF Series VLF3012S

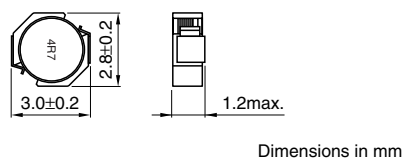
FEATURES

- Miniature size
Mount area: 2.8×3mm
Low profile: 1.2mm max. height
- Generic use for portable DC to DC converter line.
- High magnetic shield construction should actualize high resolution for EMC protection.
- Available for automatic mounting in tape and reel package.
- The products contain no lead and also support lead-free soldering.
- It is a product conforming to RoHS directive.

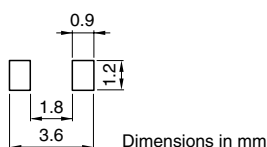
APPLICATIONS

Power source inductor for mobile devices such as mobile phones, HDDs, and DSCs

SHAPES AND DIMENSIONS



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance(%)	Test frequency (MHz)	DC resistance(Ω)		Rated current(A)*	
				max.	typ.	Based on inductance change max.	Based on temperature rise typ.
VLF3012ST-1R0N2R0	1	±30	1	0.038	0.032	2.0	2.7
VLF3012ST-2R2M1R4	2.2	±20	1	0.072	0.060	1.4	1.9
VLF3012ST-3R3M1R1	3.3	±20	1	0.11	0.090	1.1	1.6
VLF3012ST-4R7MR91	4.7	±20	1	0.155	0.13	0.91	1.3
VLF3012ST-6R8MR78	6.8	±20	1	0.22	0.18	0.78	1.1
VLF3012ST-100MR59	10	±20	1	0.33	0.28	0.59	0.91
VLF3012ST-150MR49	15	±20	1	0.49	0.41	0.49	0.78
VLF3012ST-220MR43	22	±20	1	0.74	0.61	0.43	0.63

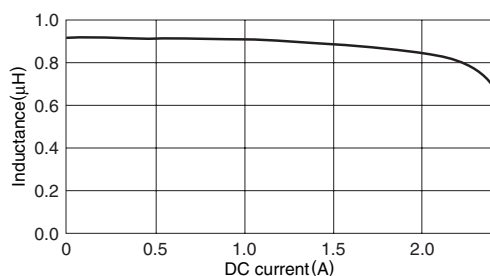
* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.

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

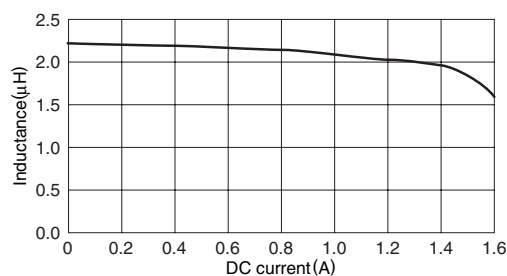
TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLF3012ST-1R0N2R0



VLF3012ST-2R2M1R4

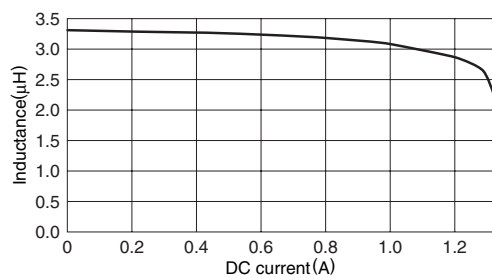
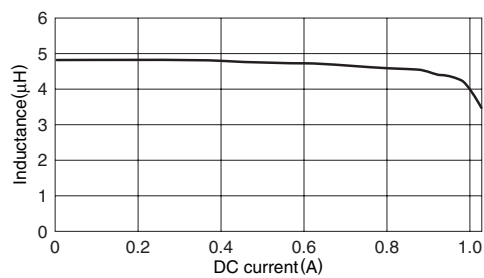
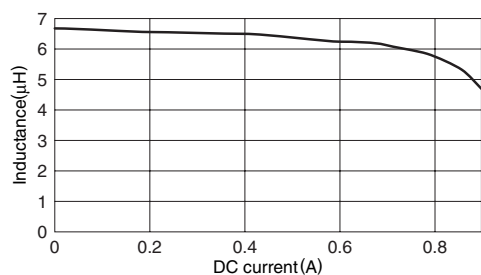
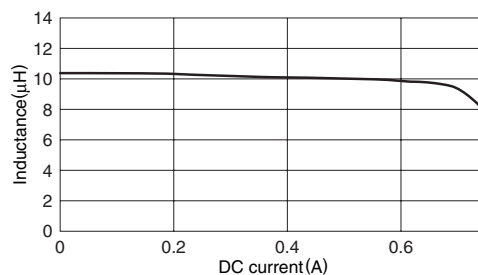
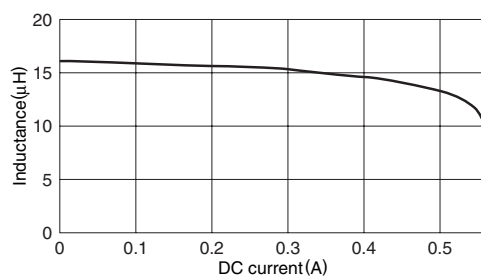
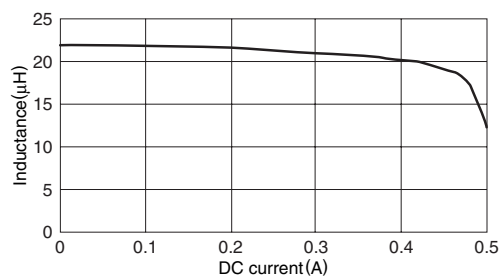


- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

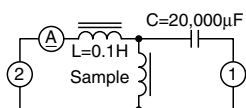
- All specifications are subject to change without notice.

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS

VLF3012ST-3R3M1R1

VLF3012ST-4R7MR91

VLF3012ST-6R8MR78

VLF3012ST-100MR59

VLF3012ST-150MR49

VLF3012ST-220MR43


TEST CIRCUIT



- 1: LCR meter 4285A $f=1\text{MHz}$
 2: DC constant current