

SMD Inductors(Coils)

For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

VLF Series VLF3010A

FEATURES

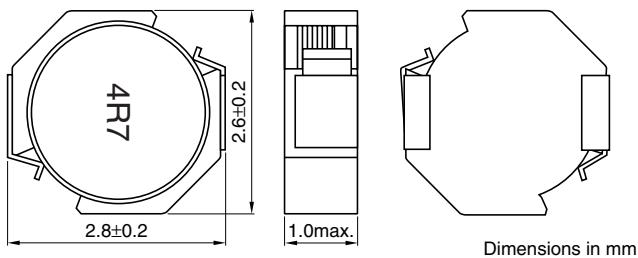
- These are compact inductors for power line measuring at L2.6×W2.8mm and 1mm in height, considerably smaller compared to inductors with comparable characteristics.
- They feature low coil resistance, making them suitable for large currents (e.g. 0.7A at 0.24Ω).
- They offer an excellent shielding effect.
- The products do not contain lead and support lead-free soldering.
- This product does not contain regulated substances that are slated to be included in RoHS.



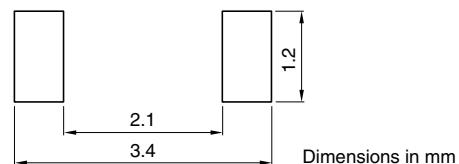
APPLICATIONS

For mobile phones, hard disk drives and DSCs.

SHAPES AND DIMENSIONS



RECOMMENDED PC BOARD PATTERN



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance	Test frequency (kHz)	DC resistance(Ω)		Rated current*(A) Based on inductance change max.	Based on temperature rise typ.
				max.	typ.		
VLF3010AT-1R5N1R2	1.5	±30%	100	0.078	0.068	1.2	1.5
VLF3010AT-2R2M1R0	2.2	±20%	100	0.12	0.10	1.0	1.2
VLF3010AT-3R3MR87	3.3	±20%	100	0.17	0.15	0.87	1.0
VLF3010AT-4R7MR70	4.7	±20%	100	0.28	0.24	0.70	0.82
VLF3010AT-6R8MR61	6.8	±20%	100	0.39	0.34	0.61	0.68
VLF3010AT-100MR49	10.0	±20%	100	0.67	0.58	0.49	0.52
VLF3010AT-150MR40	15.0	±20%	100	0.86	0.75	0.40	0.46
VLF3010AT-220MR33	22.0	±20%	100	1.5	1.3	0.33	0.35

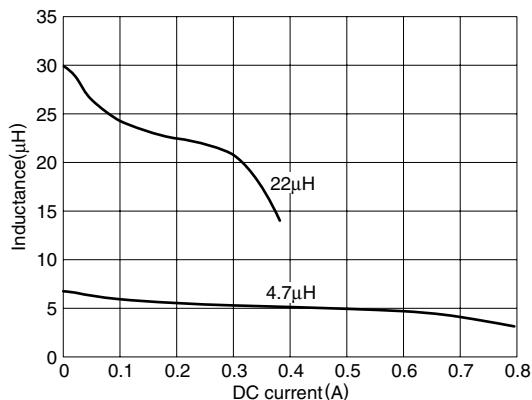
* Rated current: The rated current is the smaller of the values given based on the rate of inductance change (30% decrease from the initial value) or the temperature rise (temperature rise of 40°C caused by the heat generated by the product itself).

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

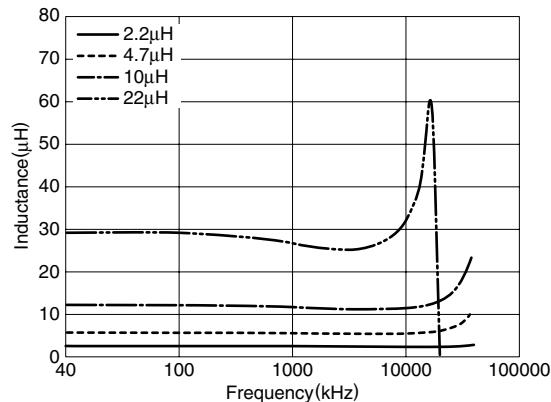
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

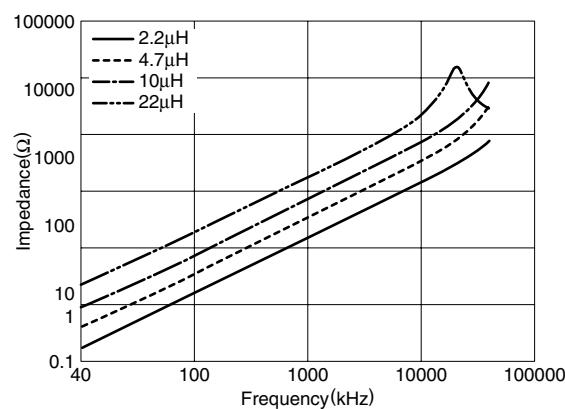
TYPICAL ELECTRICAL CHARACTERISTICS
INDUCTANCE CHANGE vs. DC SUPERPOSITION
CHARACTERISTICS



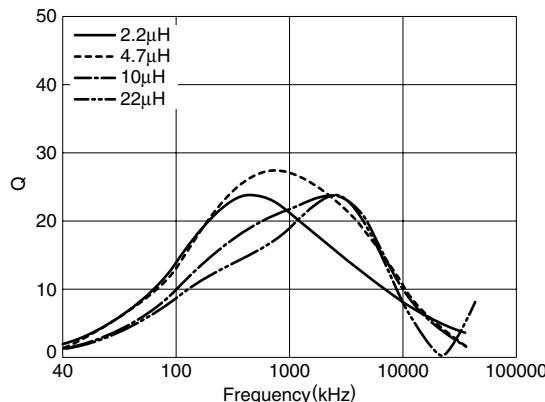
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS

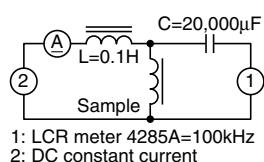


Q vs. FREQUENCY CHARACTERISTICS



- Test equipment: YHP4194A IMPEDANCE/GAIN-PHASE ANALYZER(10kHz to 40MHz)

TEST CIRCUIT



1: LCR meter 4285A=100kHz
 2: DC constant current