

Inductors for power circuits Wound ferrite VLS-CX-1 series









VLS201610CX-1 type













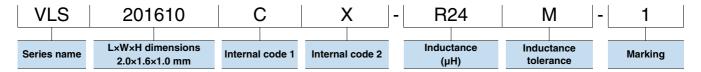
FEATURES

- OMagnetic shield type wound inductor for power circuits using a ferrite magnetic material.
- O High magnetic shield construction and compatible with high-density mounting
- O Larger current and lower Rdc were achieved by optimizing the ferrite core figure.

APPLICATION

- OSmart phones, tablet terminals, HDDs, SSDs, DVCs, DSCs, mobile display panels, portable game devices, compact power supply modules, other
- O Application guides: Smart phones/tablets

PART NUMBER CONSTRUCTION



CHARACTERISTICS SPECIFICATION TABLE

L		L measuring frequency	DC resistance		Rated current*			Part No.	
(µH)	Tolerance	(MHz)	(Ω)max.	(Ω)typ.	Isat (A)max.	Itemp (A)max.	lsat (A)typ.	Itemp (A)typ.	
0.24	±20%	1	0.040	0.032	3.91	3.08	4.35	3.62	VLS201610CX-R24M-1
0.47	±20%	1	0.050	0.042	3.15	2.69	3.50	3.16	VLS201610CX-R47M-1
0.68	±20%	1	0.076	0.063	2.52	2.19	2.81	2.58	VLS201610CX-R68M-1
1.0	±20%	1	0.079	0.066	1.76	2.14	1.95	2.52	VLS201610CX-1R0M-1
1.5	±20%	1	0.126	0.105	1.58	1.74	1.75	2.05	VLS201610CX-1R5M-1
2.2	±20%	1	0.163	0.136	1.31	1.53	1.45	1.80	VLS201610CX-2R2M-1
3.3	±20%	1	0.253	0.211	1.01	1.20	1.12	1.41	VLS201610CX-3R3M-1
4.7	±20%	1	0.365	0.304	0.82	1.00	0.92	1.18	VLS201610CX-4R7M-1
6.8	±20%	1	0.582	0.485	0.65	0.79	0.73	0.93	VLS201610CX-6R8M-1
10	±20%	1	0.732	0.61	0.55	0.71	0.62	0.83	VLS201610CX-100M-1
15	±20%	1	1.258	1.048	0.44	0.54	0.49	0.63	VLS201610CX-150M-1
22	±20%	1	1.582	1.318	0.38	0.48	0.42	0.56	VLS201610CX-220M-1

^{*} Rated current: smaller value of either lsat or Itemp.

Isat: When based on the inductance change rate $\stackrel{\cdot}{\text{(30\% below the initial L value)}}$

Itemp: When based on the temperature increase (temperature increase of 40°C by self heating)

Measurement equipment

Measurement item	Product No.	Manufacturer
L	4194A	Keysight Technologies
DC resistance	VP-2941A	Panasonic
Rated current Isat	4285A+42841A+42842C	Keysight Technologies

^{*} Equivalent measurement equipment may be used.

■TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range*	Storage temperature range**	Individual weight
–40 to 105 °C	−40 to 105 °C	15 mg

^{*} Operating temperature range includes self-temperature rise.

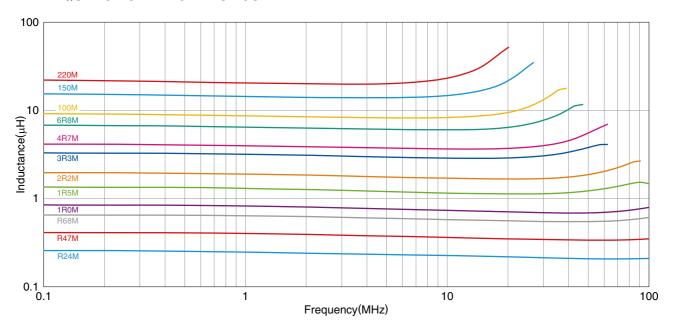


^{**} The storage temperature range is for after the assembly.



VLS201610CX-1 type

L FREQUENCY CHARACTERISTICS

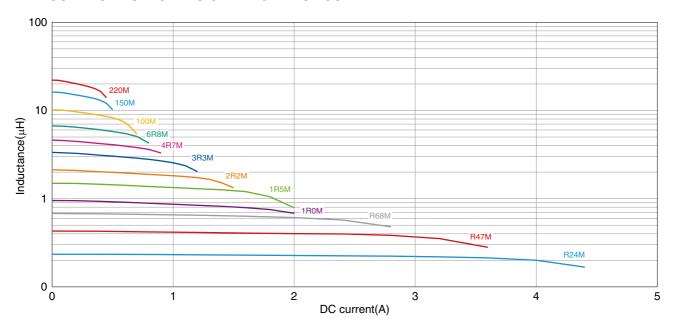


Measurement equipment

Product No.	Manufacturer
4294A	Keysight Technologies

^{*} Equivalent measurement equipment may be used.

■INDUCTANCE VS. DC BIAS CHARACTERISTICS



Measurement equipment

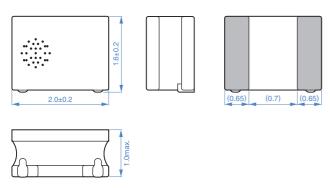
Product No.	Manufacturer
4285A+42841A+42842C	Keysight Technologies

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VLS201610CX-1 type

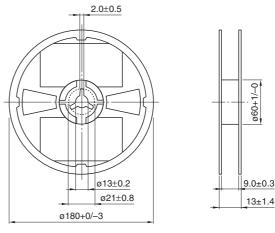
■SHAPE & DIMENSIONS



Dimensions in mm

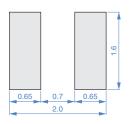
■ PACKAGING STYLE

□REEL DIMENSIONS



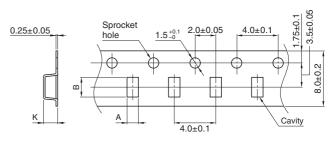
Dimensions in mm

■ RECOMMENDED LAND PATTERN



Dimensions in mm

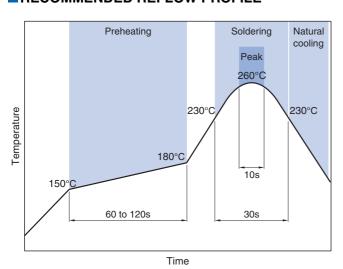
TAPE DIMENSIONS



Dimensions in mm

Туре	Α	В	K
VLS201610CX-1	1.9±0.1	2.3±0.1	1.10±0.05

■ RECOMMENDED REFLOW PROFILE



PACKAGE QUANTITY

Package quantity	2000pcs/reel



REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products.

- (1) Aerospace/aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment

set forth in the each catalog, please contact us.

- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions