

Inductors for power circuits

Wound ferrite

VLS-CX-H series

AEC-Q200

VLS4015CX-H type

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FEATURES

- Magnetic shield type wound inductor for power circuits using a ferrite magnetic material.
- High magnetic shield construction and compatible with high-density mounting.
- Larger current and lower Rdc were achieved by optimizing the ferrite core figure.
- Operating temperature range: -40 to +125°C (including self-temperature rise)
- Compliant with AEC-Q200

APPLICATION

- ADAS ECU, in-Vehicle camera (view camera, sensing camera), airbags, radar, meter cluster, automotive communication module, other power supply circuit uses

PART NUMBER CONSTRUCTION

VLS	4015	C	X	-	101	M	-	H
Series name	LxWxH dimensions 4.0x4.0x1.5 mm	Internal code 1	Internal code 2		Inductance (μH)	Inductance tolerance		Marking

CHARACTERISTICS SPECIFICATION TABLE

L (μH)	Measuring frequency		DC resistance		Rated current*				Part No.
	Tolerance	(MHz)	(Ω)max.	(Ω)typ.	Isat (A)max.	Isat (A)typ.	Itemp (A)max.	Itemp (A)typ.	
1.0	±20%	1	0.048	0.040	3.58	4.21	2.98	3.73	VLS4015CX-1R0M-H
1.5	±20%	1	0.060	0.050	3.32	3.90	2.96	3.70	VLS4015CX-1R5M-H
2.2	±20%	1	0.084	0.070	2.59	3.05	2.71	3.39	VLS4015CX-2R2M-H
3.3	±20%	1	0.096	0.080	2.41	2.84	2.40	3.00	VLS4015CX-3R3M-H
4.7	±20%	1	0.132	0.110	2.02	2.24	1.76	2.20	VLS4015CX-4R7M-H
6.8	±20%	1	0.204	0.170	1.66	1.84	1.68	2.10	VLS4015CX-6R8M-H
10	±20%	1	0.252	0.210	1.42	1.58	1.16	1.45	VLS4015CX-100M-H
15	±20%	1	0.372	0.310	1.21	1.34	1.06	1.32	VLS4015CX-150M-H
22	±20%	1	0.540	0.450	0.87	0.97	0.87	1.09	VLS4015CX-220M-H
33	±20%	1	0.804	0.670	0.69	0.77	0.76	0.95	VLS4015CX-330M-H
47	±20%	1	1.20	1.00	0.57	0.63	0.63	0.79	VLS4015CX-470M-H
68	±20%	1	1.72	1.43	0.54	0.60	0.57	0.71	VLS4015CX-680M-H
100	±20%	1	2.40	2.00	0.47	0.52	0.47	0.59	VLS4015CX-101M-H
150	±20%	1	4.21	3.51	0.39	0.43	0.33	0.41	VLS4015CX-151M-H

* Rated current: smaller value of either Isat or Itemp.

Isat: When based on the inductance change rate (30% below the initial L value)

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

Measurement equipment

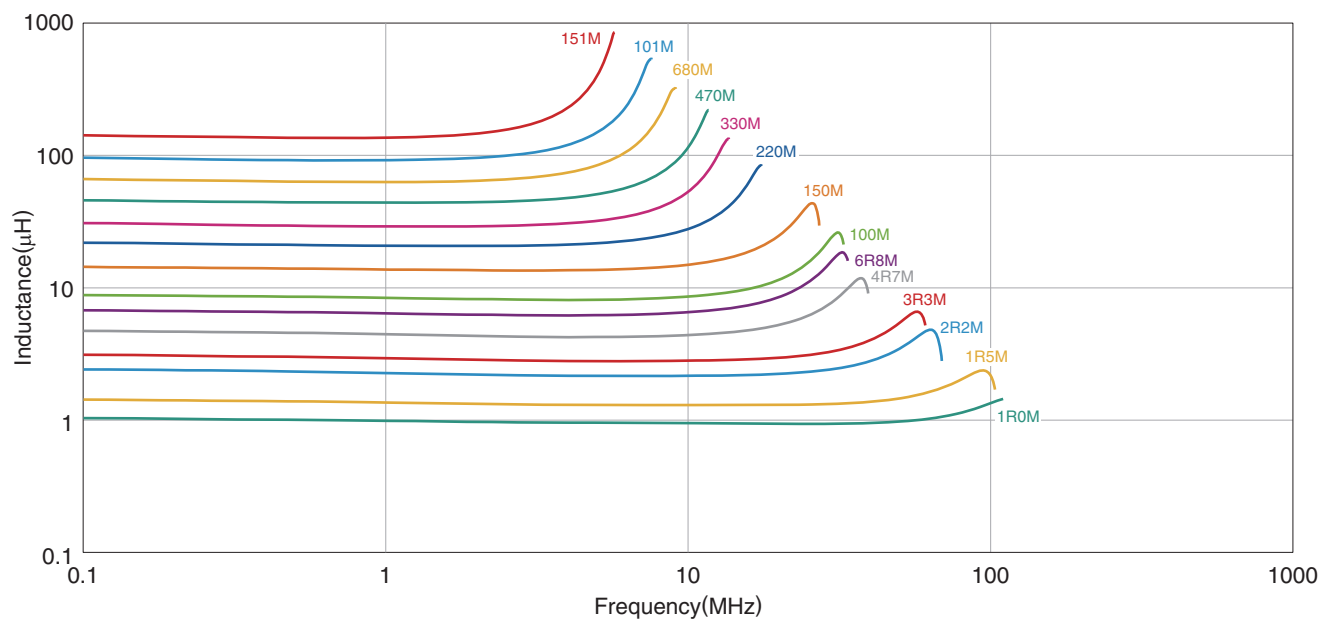
Measurement item	Product No.	Manufacturer
L	4294A	Keysight Technologies
DC resistance	34420A	Hewlett-Packard
Rated current Isat	4285A+42841A+42842C	Keysight Technologies

* Equivalent measurement equipment may be used.



VLS4015CX-H type

■ L FREQUENCY CHARACTERISTICS

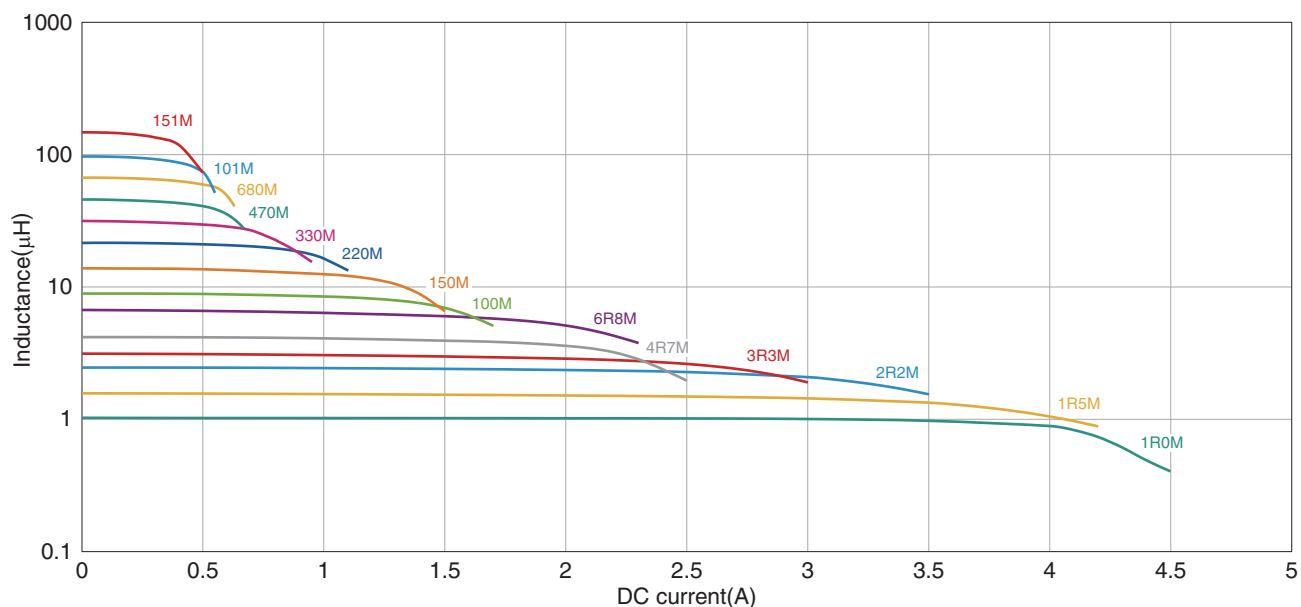


Measurement equipment

Product No.	Manufacturer
4294A	Keysight Technologies

* Equivalent measurement equipment may be used.

■ INDUCTANCE VS. DC BIAS CHARACTERISTICS



Measurement equipment

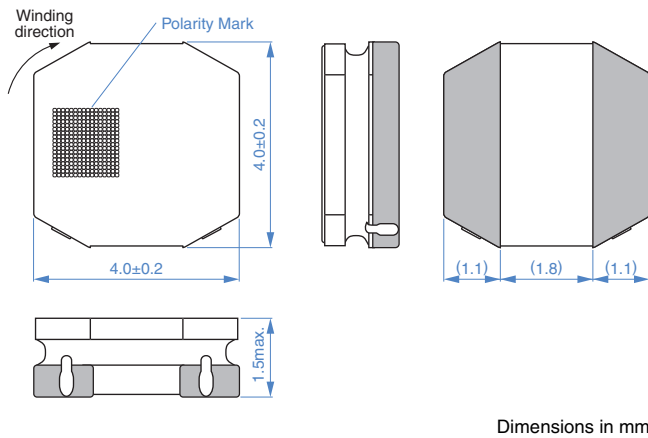
Product No.	Manufacturer
4285A+42841A+42842C	Keysight Technologies

* Equivalent measurement equipment may be used.

VLS4015CX-H type

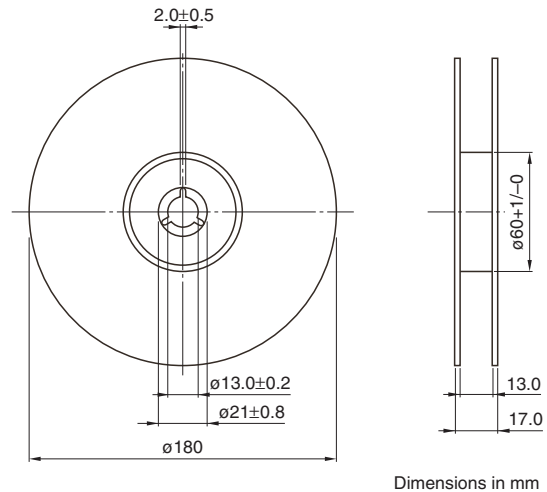
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■ SHAPE & DIMENSIONS

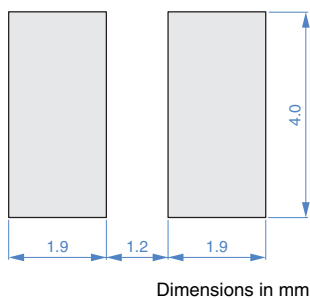


■ PACKAGING STYLE

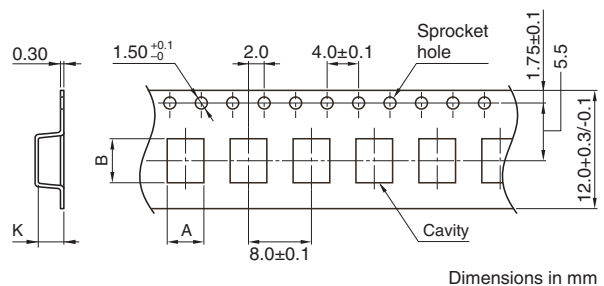
□ REEL DIMENSIONS



■ RECOMMENDED LAND PATTERN

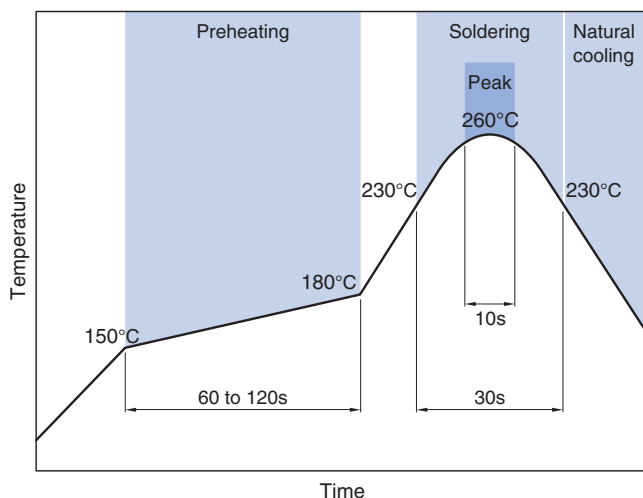


□ TAPE DIMENSIONS



Type	A	B	K
VLS4015CX-H	4.25	4.25	1.6

■ RECOMMENDED REFLOW PROFILE



□ PACKAGE QUANTITY

Package quantity	1000 pcs/reel
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■ TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range*	Storage temperature range**	Individual weight
-40 to 125 °C	-40 to 125 °C	0.097 g

* Operating temperature range includes self-temperature rise.

** The storage temperature range is for after the assembly.