LVC/ LVT Series

LVC/ LVT series, an automatic assembly power inductor, is shielded with magnetic resin and suitable for the portable DC-DC converter application.

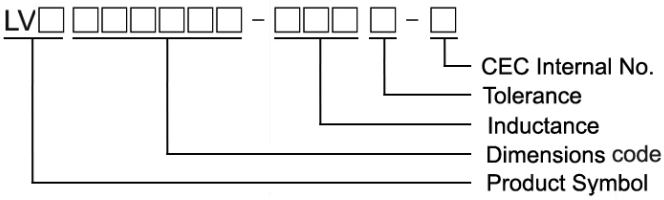
Features

- RoHS compliant
- Low DC resistance and high current.
- Highly accurate dimensions can be mounted automatically
- Superior EMI electrical with ultra low radiation comparing to conventional shielded power inductors
- Halogen free

Applications

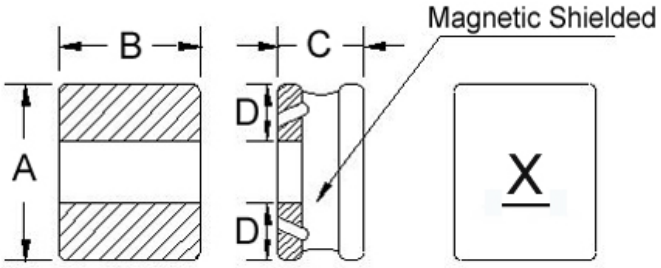
- Smart Phone, DSC, Tablet PC and other portable devices
- DC/DC converters

Product Identification



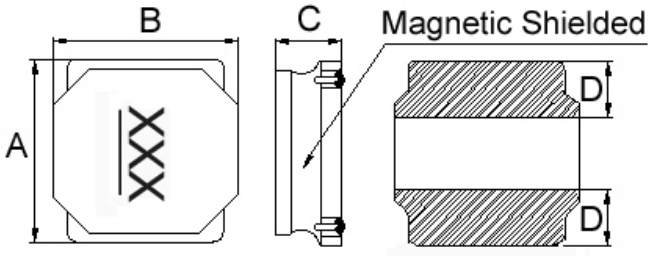
Shapes and Dimensions

Figure 1



Recommended Pattern

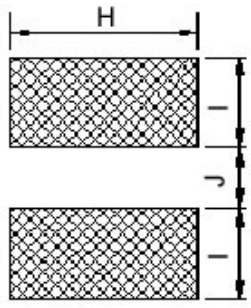
Figure 2



Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
LVX201B10	1	2.0±0.25	1.6±0.25	1.02 Max	0.6	1.8	0.80	0.8
LVC201B12	1	2.0±0.25	1.6±0.25	1.2±0.05	0.6	1.8	0.80	0.8
LVT252A10	1	2.5±0.25	2.0±0.25	1.02 Max	0.8	2.2	0.85	0.8
LVT252A12	1	2.5±0.25	2.0±0.25	1.2±0.05	0.8	2.2	0.85	0.8
LVT303010	1	3.0±0.20	3.0±0.20	1.02 Max	1.0	3.2	1.1	1.0
LVT303012	1	3.0±0.20	3.0±0.20	1.20 Max	1.0	3.2	1.1	1.0
LVT404012	1	4.0±0.20	4.0±0.20	1.2±0.1	1.5	4.2	1.5	1.2
LVT404015	2	4.0±0.25	4.0±0.25	1.5±0.2	1.3	3.7	1.5	1.2
LVT404026	2	4.0±0.20	4.0±0.25	2.6±0.2	1.4	3.7	1.2	1.6

Recommended Pattern



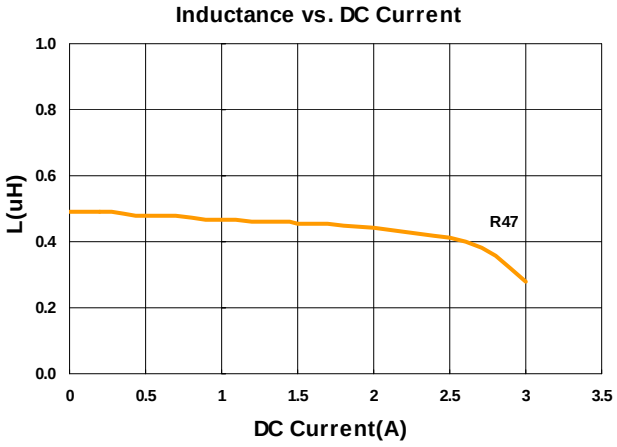
CHILISIN ELECTRONICS CORP.

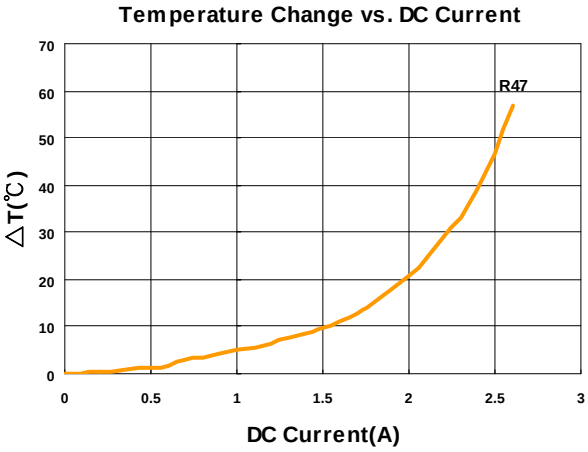
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVT201B10-R47□-N	0.47	1	20, 30	72	2.40(1.920)	2.40(1.920)	A

- When ordering, please specify tolerance and packaging codes.
- Tolerance： T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502,or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ rise above 25℃ ambient.
- Operating temperature range from -40℃ to 125℃. (Including self - temperature rise)

Test Instruments：HP4284A Material/Impedance Analyzer



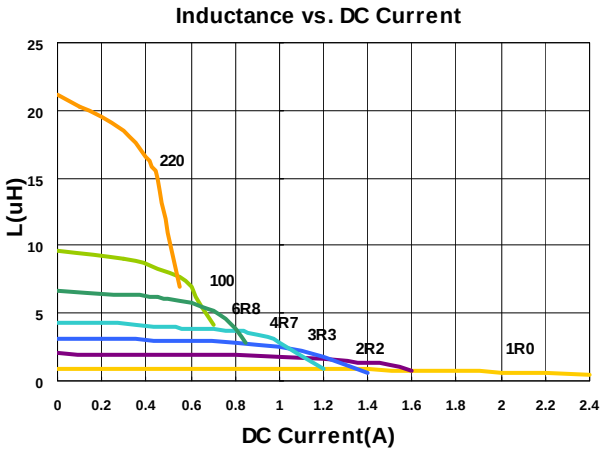


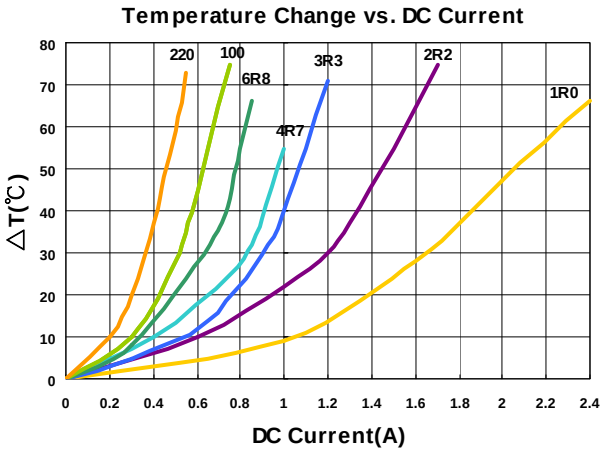
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC201B10-1R0□-N	1.0	1	20, 30	95	1.86(1.488)	1.86(1.488)	B
LVC201B10-1R5□-N	1.5	1	20, 30	140	1.64(1.312)	1.65(1.320)	C
LVC201B10-2R2□-N	2.2	1	20, 30	190	1.30(1.040)	1.30(1.040)	D
LVC201B10-3R3□-N	3.3	1	20, 30	295	0.96(0.768)	0.98(0.784)	E
LVC201B10-4R7□-N	4.7	1	20, 30	360	0.84(0.672)	0.90(0.720)	F
LVC201B10-6R8□-N	6.8	1	20, 30	640	0.66(0.528)	0.70(0.560)	G
LVC201B10-100□-N	10	1	20, 30	1000	0.54(0.432)	0.56(0.448)	H
LVC201B10-220□-N	22	1	20, 30	1700	0.38(0.304)	0.40(0.320)	I

- When ordering, please specify tolerance and packaging codes.
- Tolerance： T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502,or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ rise above 25℃ ambient.
- Operating temperature range from -40℃ to 125℃. (Including self - temperature rise)

Test Instruments：HP4284A Material/Impedance Analyzer





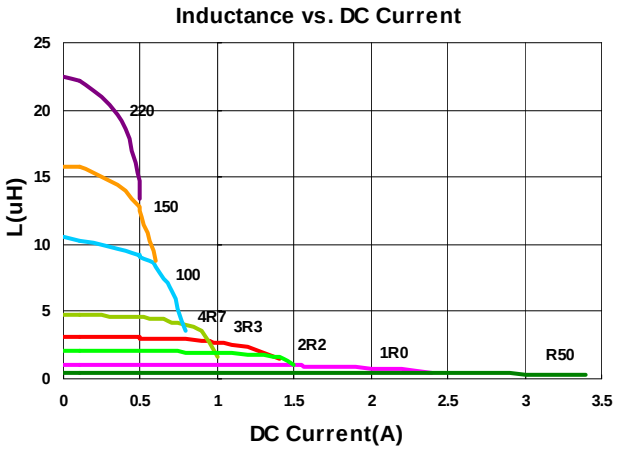
CHILISIN ELECTRONICS CORP.

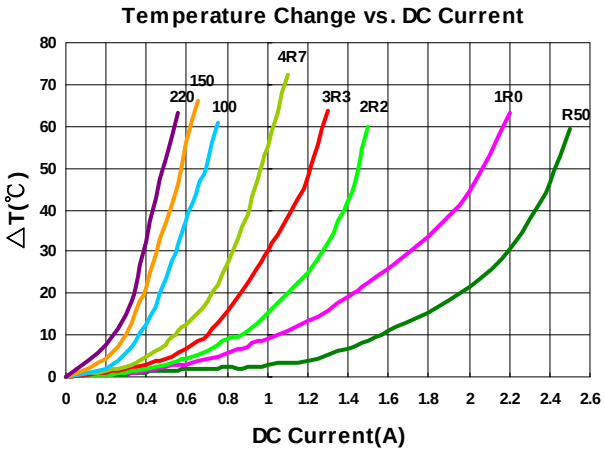
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC201B12-R50□-N	0.5	1	20, 30	51	2.60(2.080)	2.30(1.840)	B
LVC201B12-1R0□-N	1.0	1	20, 30	83	1.90(1.520)	1.80(1.440)	C
LVC201B12-2R2□-N	2.2	1	20, 30	159	1.36(1.088)	1.34(1.072)	E
LVC201B12-3R3□-N	3.3	1	20, 30	220	1.10(0.880)	1.06(0.848)	F
LVC201B12-4R7□-N	4.7	1	20, 30	330	0.92(0.736)	0.90(0.720)	G
LVC201B12-100□-N	10	1	20, 30	580	0.62(0.496)	0.58(0.464)	I
LVC201B12-150□-N	15	1	20, 30	900	0.48(0.384)	0.45(0.360)	J
LVC201B12-220□-N	22	1	20, 30	1400	0.40(0.320)	0.40(0.320)	K

- When ordering, please specify tolerance and packaging codes.
- Tolerance： T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502,or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ rise above 25℃ ambient.
- Operating temperature range from -40℃ to 125℃. (Including self - temperature rise)

Test Instruments：HP4284A Material/Impedance Analyzer





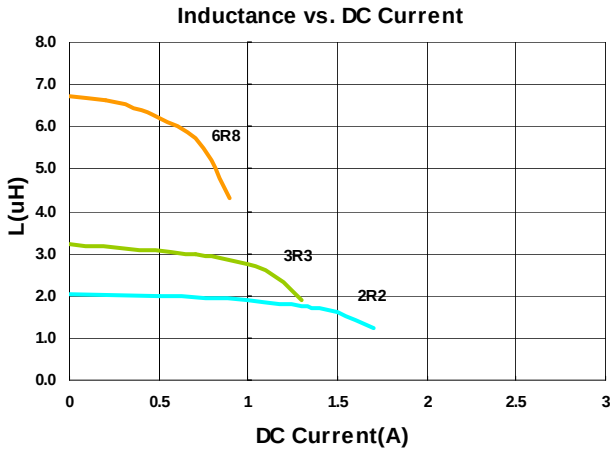
Electrical Characteristics

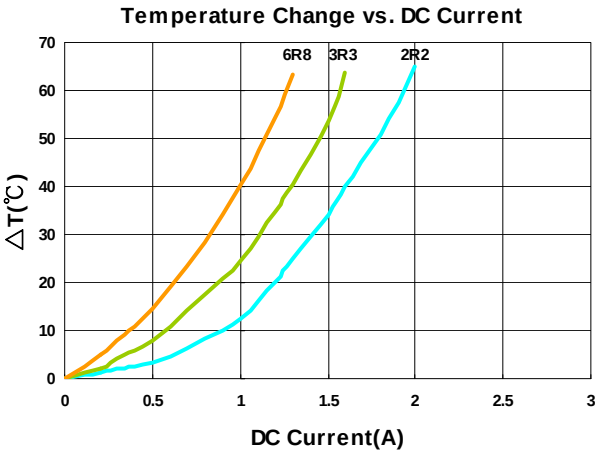
Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVT252A10-2R2□-N	2.2	1	20, 30	0.135	1.42(1.136)	1.55(1.240)	D
LVT252A10-3R3□-N	3.3	1	20, 30	0.220	1.12(0.896)	1.20(0.960)	E
LVT252A10-6R8□-N	6.8	1	20, 30	0.435	0.78(0.624)	0.84(0.672)	G
LVT252A12-R47□-N	0.47	1	20, 30	0.027	3.70(2.960)	3.10(2.480)	A

- When ordering, please specify tolerance and packaging codes.
- Tolerance： T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502,or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ rise above 25℃ ambient.
- Operating temperature range from -40℃ to 125℃. (Including self - temperature rise)

Test Instruments：HP4284A Material/Impedance Analyzer

252A10





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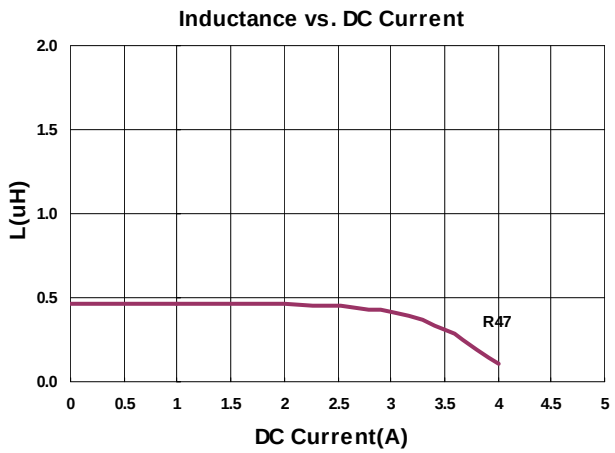
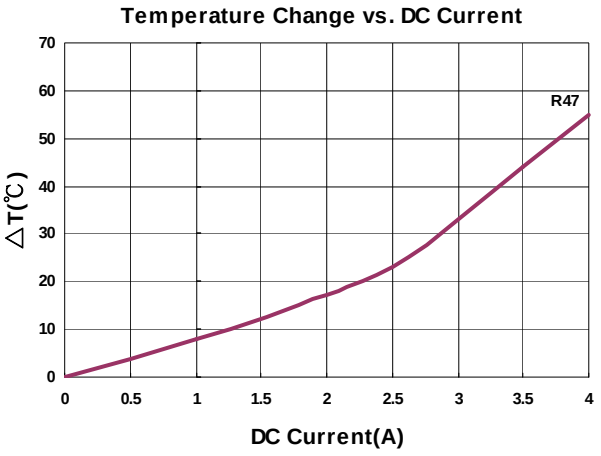




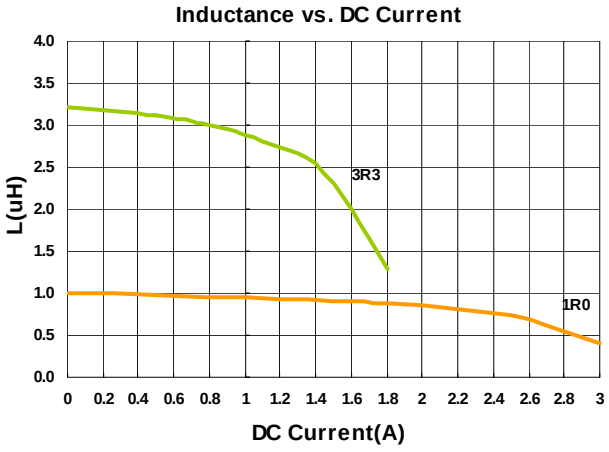
Electrical Characteristics

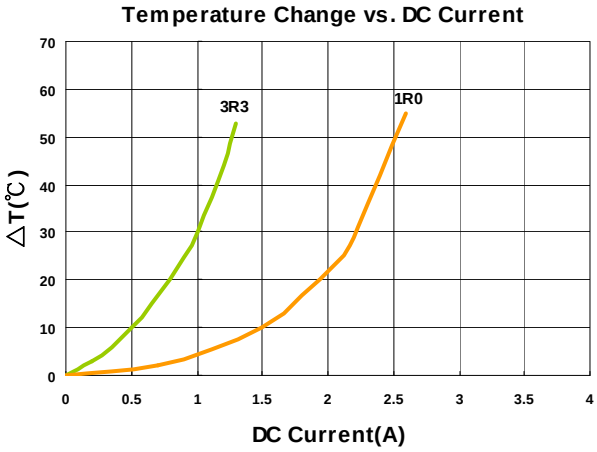
Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVT303010-1R0□-N	1.0	1	20, 30	0.063	2.4(1.92)	2.3(1.84)	1R0
LVT303010-3R3□-N	3.3	1	20, 30	0.165	1.2(0.96)	1.1(0.88)	3R3
LVT303012-R47□-N	0.47	1	20, 30	0.032	4.3(3.44)	4.0(3.20)	R47
LVT303012-1R0□-N	1.0	1	20, 30	0.060	3.1(2.48)	3.0(2.40)	1R0
LVT303012-1R5□-N	1.5	1	20, 30	0.072	2.7(2.16)	2.6(2.08)	1R5

- When ordering, please specify tolerance and packaging codes.
- Tolerance： T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502,or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ rise above 25℃ ambient.
- Operating temperature range from -40℃ to 125℃. (Including self - temperature rise)

Test Instruments：HP4284A Material/Impedance Analyzer

303010





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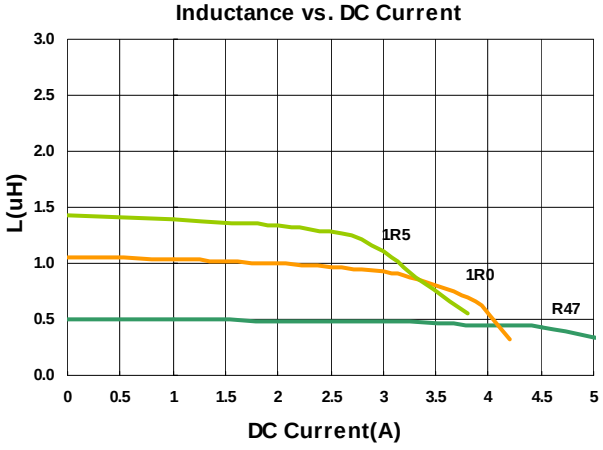
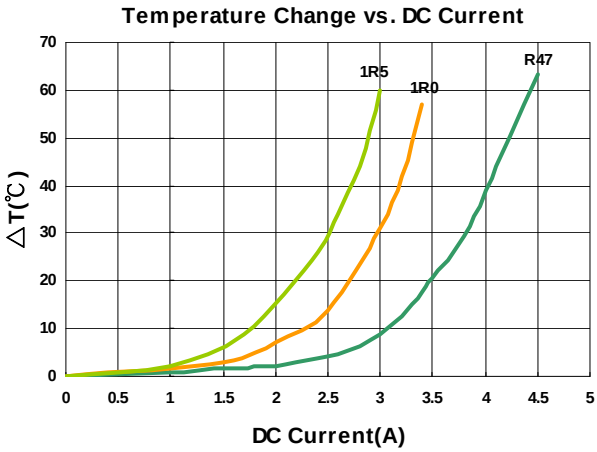




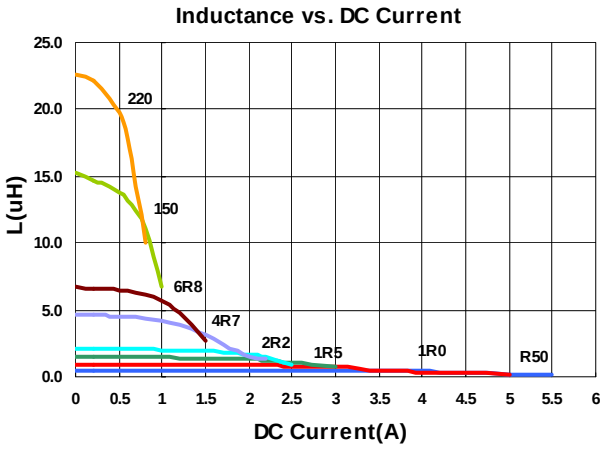
CHILISIN ELECTRONICS CORP.

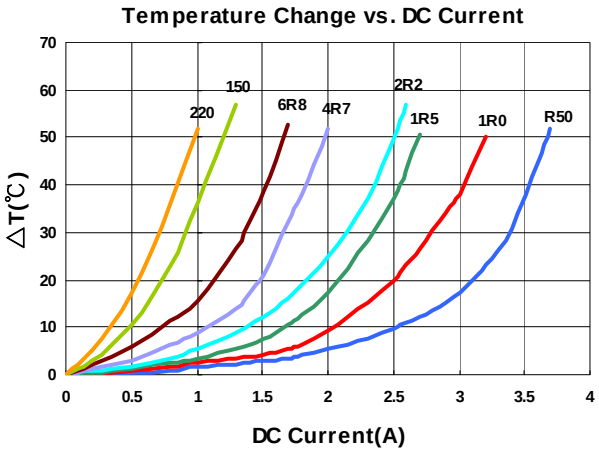
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVT404012-R50□-N	0.5	1	20, 30	0.030	3.90(3.12)	3.50(2.80)	R50
LVT404012-1R0□-N	1.0	1	20, 30	0.040	2.90(2.32)	3.00(2.40)	1R0
LVT404012-1R5□-N	1.5	1	20, 30	0.051	2.30(1.84)	2.50(2.00)	1R5
LVT404012-2R2□-N	2.2	1	20, 30	0.060	1.90(1.52)	2.30(1.84)	2R2
LVT404012-4R7□-N	4.7	1	20, 30	0.094	1.32(1.05)	1.80(1.44)	4R7
LVT404012-6R8□-N	6.8	1	20, 30	0.135	1.08(0.86)	1.50(1.20)	6R8
LVT404012-150□-N	15	1	20, 30	0.260	0.78(0.62)	1.00(0.80)	150
LVT404012-220□-N	22	1	20, 30	0.390	0.62(0.49)	0.80(0.64)	220

- When ordering, please specify tolerance and packaging codes.
- Tolerance： T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502,or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ rise above 25℃ ambient.
- Operating temperature range from -40℃ to 125℃. (Including self - temperature rise)

Test Instruments：HP4284A Material/Impedance Analyzer





Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVT404015-1R0□-N	1.0	1	20, 30	0.034	3.60(2.88)	3.70(2.96)	1R0
LVT404015-3R3□-N	3.3	1	20, 30	0.080	2.00(1.60)	2.20(1.76)	3R3

- When ordering, please specify tolerance and packaging codes.
- Tolerance： T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502,or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ rise above 25℃ ambient.
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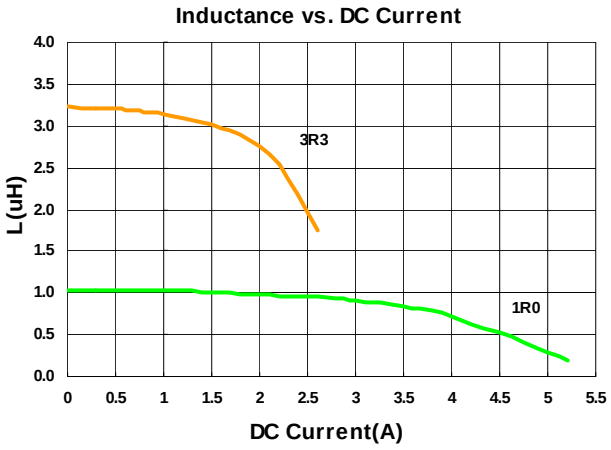
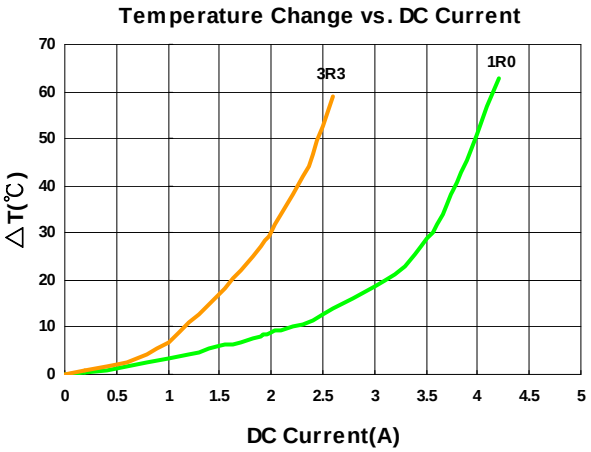
Test Instruments：HP4284A Material/Impedance Analyzer





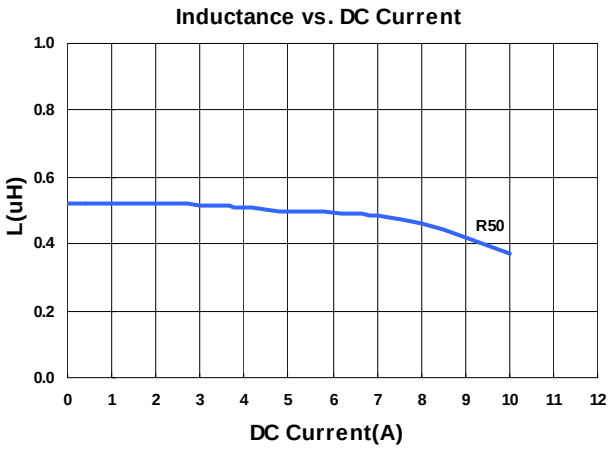
CHILISIN ELECTRONICS CORP.

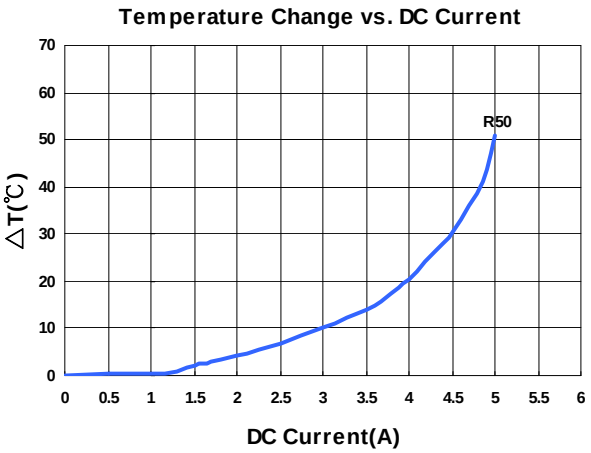
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (KHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVT404026-R50□-N	0.5	100	20, 30	0.024	7.20(5.76)	4.80(3.84)	R50

- When ordering, please specify tolerance and packaging codes.
- Tolerance： T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 100KHz 1V
- RDC : Digital Milliohm Meter Chroma 16502,or equivalent
- Isat & Irms : Agilent/HP4284A, 100KHz 1V
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ rise above 25℃ ambient.
- Operating temperature range from -40℃ to 125℃. (Including self - temperature rise)

Test Instruments：HP4284A Material/Impedance Analyzer

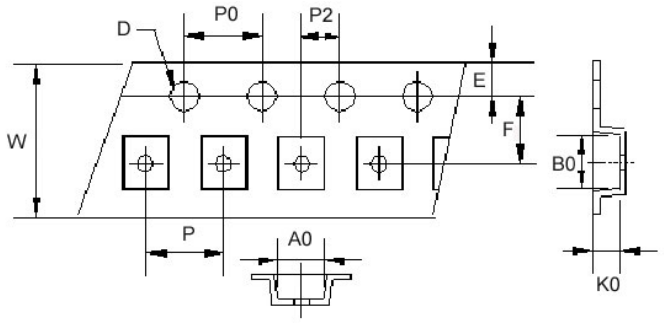




Packaging Specifications

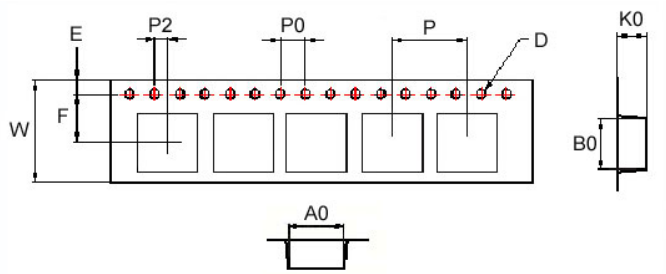
Tape Dimensions

Figure 1



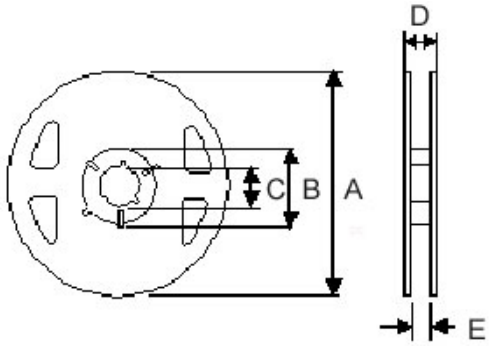
Tape Dimensions

Figure 2



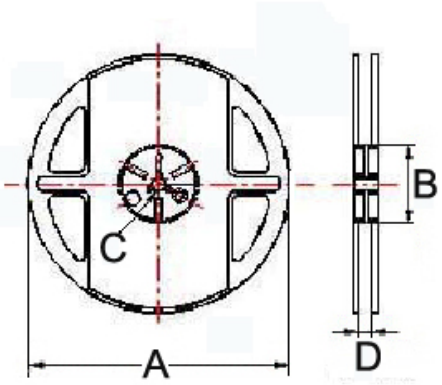
Reel Dimensions

Figure 1



Reel Dimensions

Figure 2



Dimensions in mm

TYPE	Fig	Tape Dimensions										Reel Dimensions					Quantity
		A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	PCS / Reel
LVX201B10	1	1.90	2.20	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
LVC201B12	1	1.90	2.20	1.30	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
LVT252A10	1	2.40	2.70	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
LVT252A12	1	2.40	2.70	1.30	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
LVT303010	1	3.20	3.20	1.40	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
LVT303012	1	3.20	3.20	1.40	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
LVT404012	2	4.25	4.25	1.30	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
LVT404015	2	4.25	4.25	1.70	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
LVT404026	2	4.25	4.25	3.00	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	500