

LVC Series



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

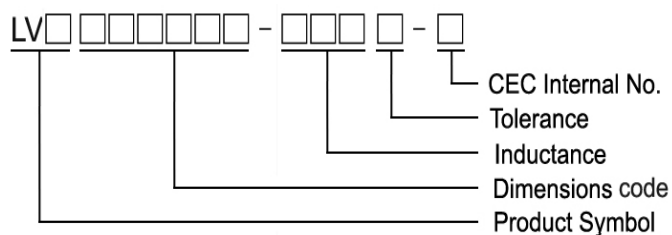
Features

- RoHS, Halogen Free and REACH Compliance
- Shielded with magnetic resin
- Various package size and wide inductance range
- Optimize electrical characteristics by using different ferrite core figures

Applications

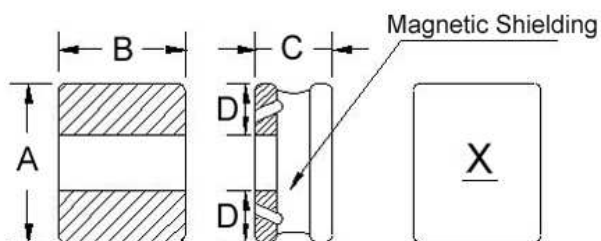
- Smartphones, tablets and wearable devices
- DSC, camcorders
- AP Routers
- STBs
- LCD TVs, monitors and panels
- Game consoles
- DC/DC converters

Product Identification

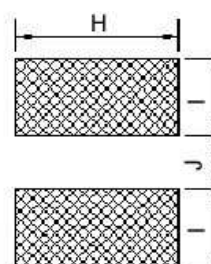


Shape and Dimensions

Figure 1



Recommended Pattern

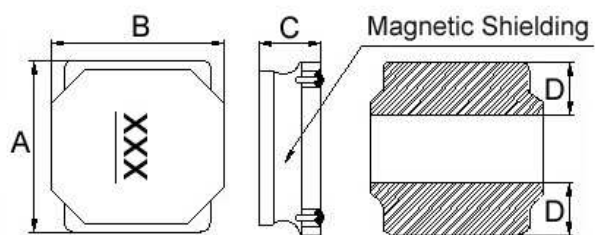


Dimensions in mm

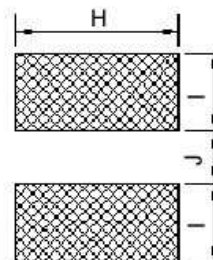
TYPE	FIG	A	B	C	D	H	I	J
LVC201B10	1	2.0±0.25	1.6±0.25	1.02 Max	0.6	1.8	0.80	0.8
LVC201B12	1	2.0±0.25	1.6±0.25	1.2±0.05	0.6	1.8	0.80	0.8
LVC252A12	1	2.5±0.25	2.0±0.25	1.2±0.05	0.8	2.2	0.85	0.8

Shape and Dimensions

Figure 2



Recommended Pattern

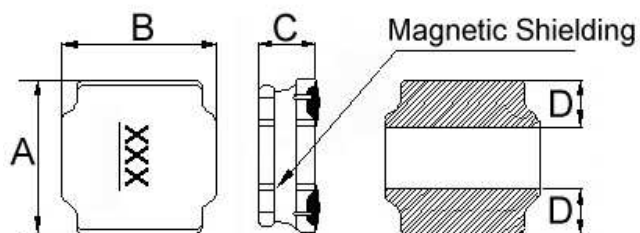


Dimensions in mm

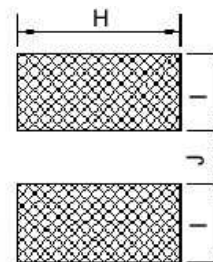
TYPE	FIG	A	B	C	D	H	I	J
LVC404018	2	4.0±0.20	4.0±0.20	1.8±0.2	1.3	3.7	1.5	1.2
LVC606028	2	6.0±0.20	6.0±0.20	2.8±0.2	1.9±0.3	5.7	1.8	2.6

Shape and Dimensions

Figure 3



Recommended Pattern



Dimensions in mm

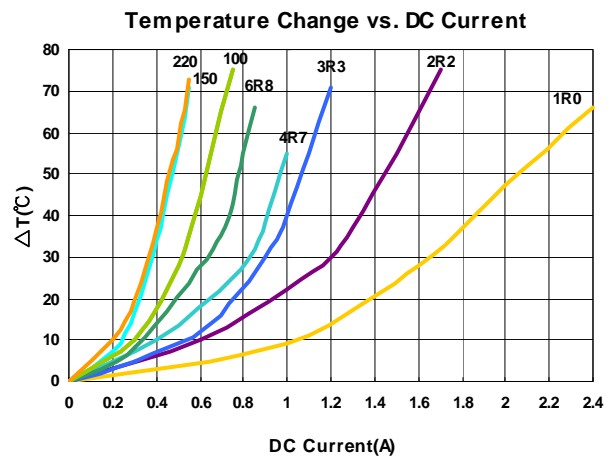
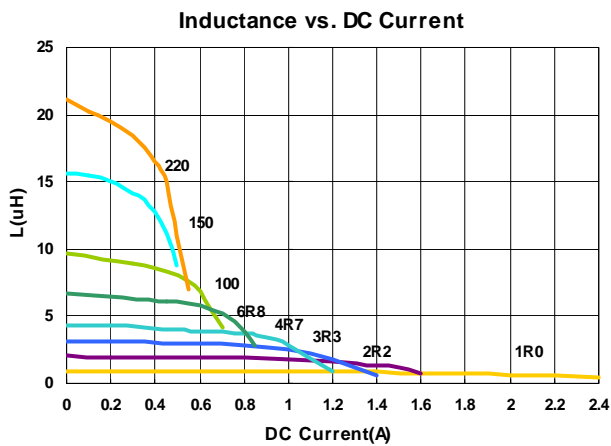
TYPE	FIG	A	B	C	D	H	I	J
LVC505040	3	5.0±0.20	5.0±0.20	4.0±0.2	1.5	4.2	1.6	2.0
LVC606045	3	6.0±0.20	6.0±0.20	4.5 ^{+0.2} _{-0.30}	1.8±0.3	5.7	2.0	2.4

Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC201B10-R24□-N	0.24	1	20, 30	0.026	3.20(2.88)	3.00(2.70)	M
LVC201B10-1R0□-N	1.0	1	20, 30	0.095	1.86(1.67)	1.86(1.67)	B
LVC201B10-1R5□-N	1.5	1	20, 30	0.140	1.64(1.47)	1.65(1.48)	C
LVC201B10-2R2□-N	2.2	1	20, 30	0.190	1.30(1.17)	1.30(1.17)	D
LVC201B10-3R3□-N	3.3	1	20, 30	0.295	0.96(0.86)	0.98(0.88)	E
LVC201B10-4R7□-N	4.7	1	20, 30	0.360	0.84(0.75)	0.90(0.81)	F
LVC201B10-6R8□-N	6.8	1	20, 30	0.640	0.66(0.59)	0.70(0.63)	G
LVC201B10-100□-N	10	1	20, 30	1.000	0.54(0.48)	0.56(0.50)	H
LVC201B10-150□-N	15	1	20, 30	1.500	0.39(0.35)	0.42(0.37)	K
LVC201B10-180□-N	18	1	20, 30	1.600	0.39(0.35)	0.41(0.36)	J
LVC201B10-220□-N	22	1	20, 30	1.700	0.38(0.34)	0.40(0.36)	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 & I rms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C rise above 25°C ambient
- Operating temperature range from -55°C to 125°C . (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

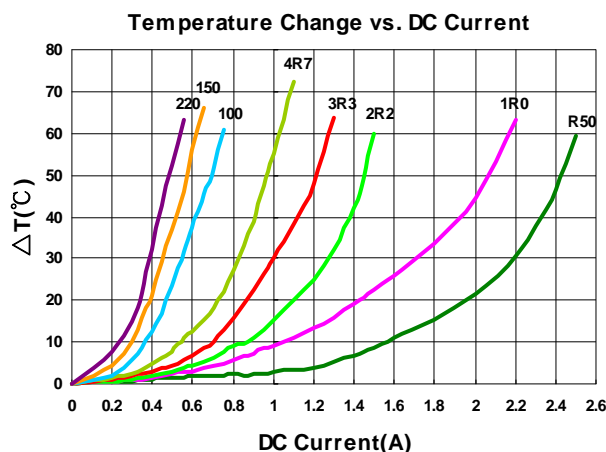
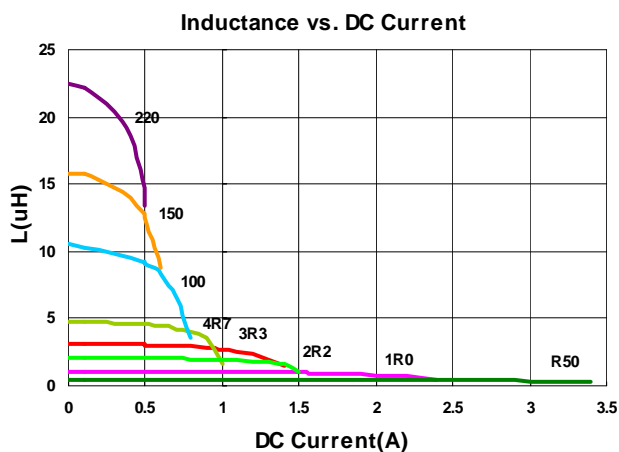


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC201B12-R50□-N	0.5	1	20, 30	0.051	2.60(2.34)	2.30(2.07)	B
LVC201B12-1R0□-N	1.0	1	20, 30	0.083	1.90(1.71)	1.80(1.62)	C
LVC201B12-2R2□-N	2.2	1	20, 30	0.159	1.36(1.22)	1.34(1.20)	E
LVC201B12-3R3□-N	3.3	1	20, 30	0.220	1.10(0.99)	1.06(0.95)	F
LVC201B12-4R7□-N	4.7	1	20, 30	0.330	0.92(0.82)	0.90(0.81)	G
LVC201B12-100□-N	10	1	20, 30	0.580	0.62(0.55)	0.58(0.52)	I
LVC201B12-150□-N	15	1	20, 30	0.900	0.48(0.43)	0.45(0.40)	J
LVC201B12-220□-N	22	1	20, 30	1.400	0.40(0.36)	0.40(0.36)	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 & I rms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C rise above 25°C ambient
- Operating temperature range from -55°C to 125°C. (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

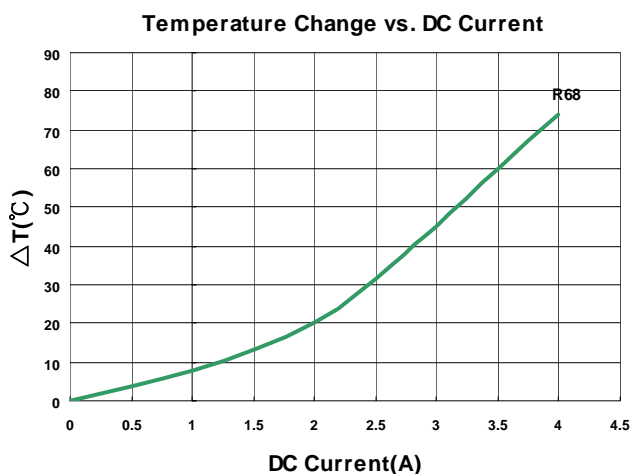
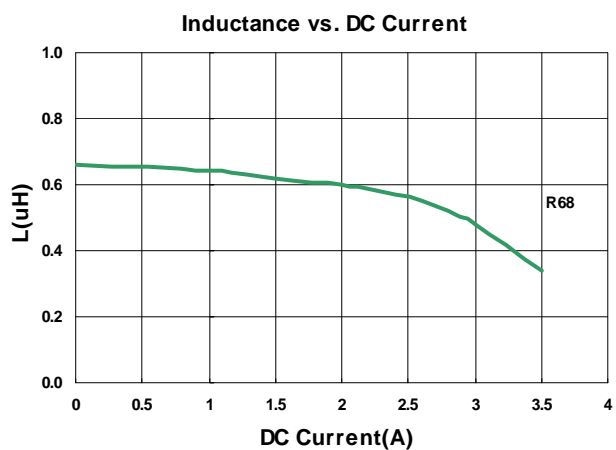


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC252A12-R68□-N	0.68	1	20, 30	0.035	2.80(2.52)	2.60(2.34)	N

- 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°C rise above 25°C ambient
- Operating temperature range from -55°C to 125°C. (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

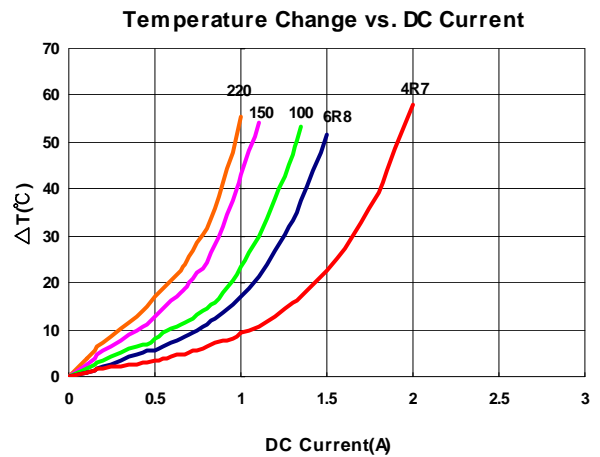
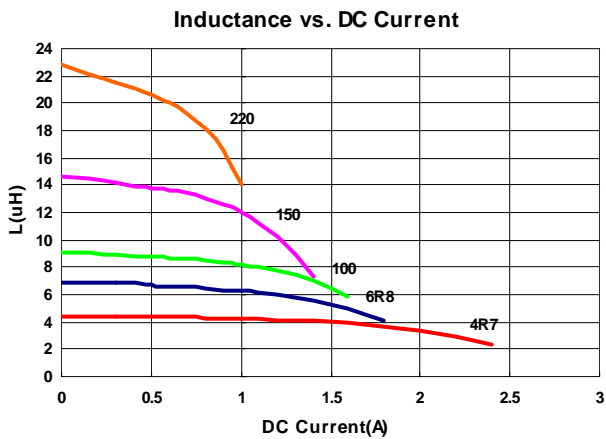


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (KHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC404018-4R7□-N	4.7	100	20, 30	0.077	2.00(1.80)	1.80(1.62)	4R7
LVC404018-6R8□-N	6.8	100	20, 30	0.105	1.50(1.35)	1.35(1.21)	6R8
LVC404018-100□-N	10	100	20, 30	0.160	1.40(1.26)	1.20(1.08)	100
LVC404018-150□-N	15	100	20, 30	0.245	1.05(0.94)	0.95(0.85)	150
LVC404018-220□-N	22	100	20, 30	0.335	0.90(0.81)	0.88(0.79)	220

- When ordering, please specify tolerance and packaging codes
- Tolerance : M = ±20% , T = ±30%
- L : Agilent/HP 4284A + Agilent/HP 16334A, 100KHz with 1V
- Isat & Irms : Agilent/HP 4284A, 100KHz with 1V
- Rdc : Digital Milliohm Meter Chroma 16502, or equivalent
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C rise above 25°C ambient
- Operating temperature range from -55°C to 125°C. (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer



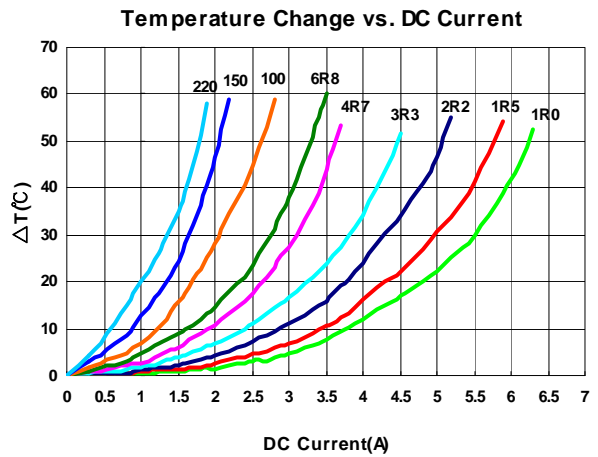
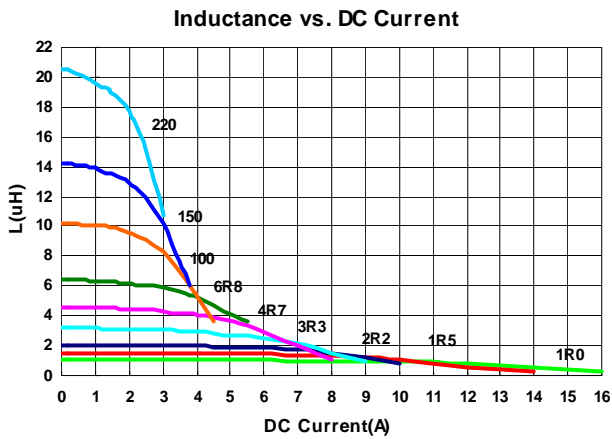
Sealed Power Inductors - LVC Series

Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (KHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC505040-1R0□-N	1.0	100	20, 30	0.012	8.8(7.92)	5.9(5.31)	1R0
LVC505040-1R5□-N	1.5	100	20,30	0.014	7.9(7.11)	5.4(4.86)	1R5
LVC505040-2R2□-N	2.2	100	20, 30	0.020	6.8(6.12)	4.5(4.05)	2R2
LVC505040-3R3□-N	3.3	100	20, 30	0.026	5.3(4.77)	4.2(3.78)	3R3
LVC505040-4R7□-N	4.7	100	20, 30	0.032	4.4(3.96)	3.2(2.88)	4R7
LVC505040-6R8□-N	6.8	100	20, 30	0.050	3.8(3.42)	3.0(2.70)	6R8
LVC505040-100□-N	10	100	20, 30	0.070	3.0(2.70)	2.3(2.07)	100
LVC505040-150□-N	15	100	20, 30	0.115	2.4(2.16)	1.8(1.62)	150
LVC505040-220□-N	22	100	20, 30	0.160	2.0(1.80)	1.6(1.44)	220

- When ordering, please specify tolerance and packaging codes
- Tolerance : M = ±20% , T = ±30%
- L : Agilent/HP 4284A + Agilent/HP 16334A, 100KHz with 1V
- Isat & Irms : Agilent/HP 4284A, 100KHz with 1V
- Rdc : Digital Milliohm Meter Chroma 16502, or equivalent
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C rise above 25°C ambient
- Operating temperature range from -55°C to 125°C. (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

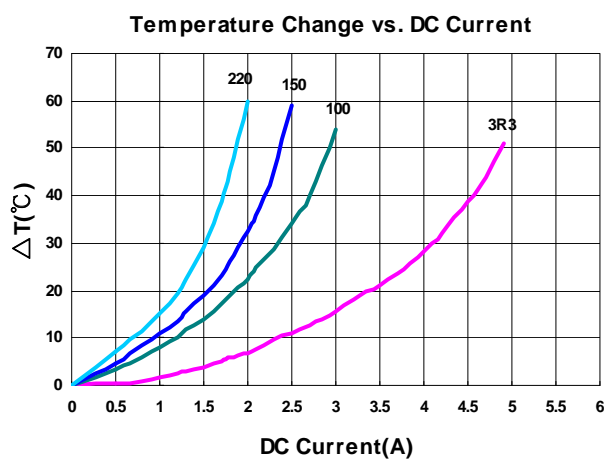
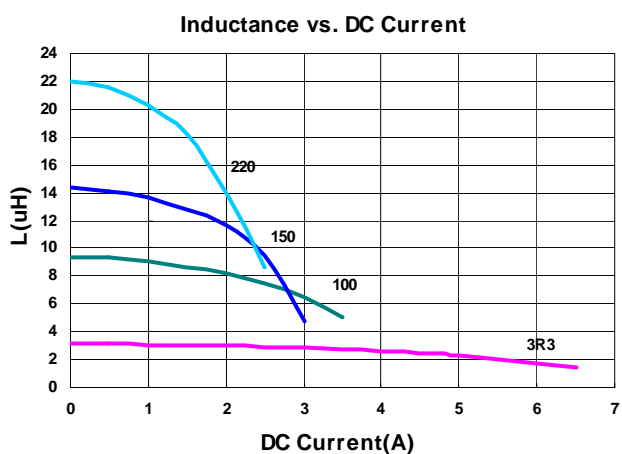


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (KHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC606028-3R3□-N	3.3	100	20, 30	0.027	4.5(4.05)	4.0(3.60)	3R3
LVC606028-100□-N	10	100	20, 30	0.065	2.6(2.34)	2.5(2.25)	100
LVC606028-150□-N	15	100	20, 30	0.093	2.1(1.89)	2.0(1.80)	150
LVC606028-220□-N	22	100	20, 30	0.135	1.7(1.53)	1.65(1.48)	220

- When ordering, please specify tolerance and packaging codes
- Tolerance : M = ±20% , T = ±30%
- L : Agilent/HP 4284A + Agilent/HP 16334A, 100KHz with 1V
- Isat & Irms : Agilent/HP 4284A, 100KHz with 1V
- Rdc : Digital Milliohm Meter Chroma 16502, or equivalent
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C rise above 25°C ambient
- Operating temperature range from -55°C to 125°C. (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer



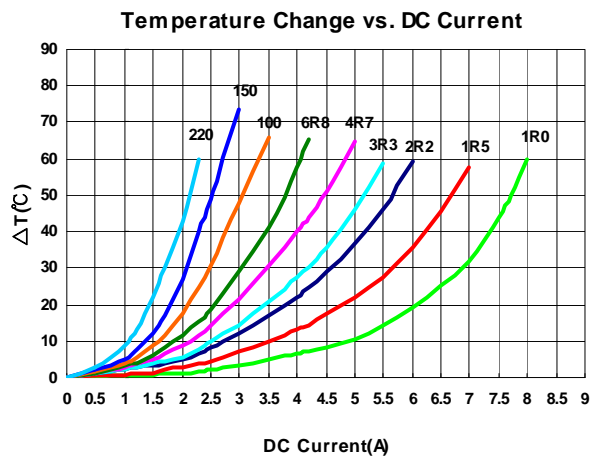
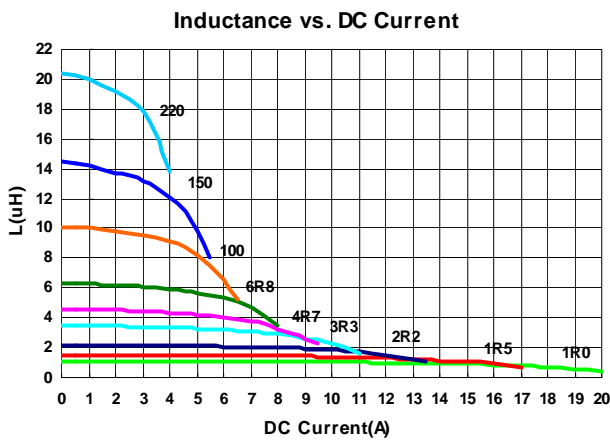
Sealed Power Inductors - LVC Series

Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (KHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVC606045-1R0□-N	1.0	100	30	0.010	13(11.7)	7.3(6.57)	1R0
LVC606045-1R5□-N	1.5	100	20,30	0.012	12(10.8)	6.6(5.94)	1R5
LVC606045-2R2□-N	2.2	100	20, 30	0.018	9.5(8.55)	5.2(4.68)	2R2
LVC606045-3R3□-N	3.3	100	20, 30	0.022	7.8(7.02)	4.4(3.96)	3R3
LVC606045-4R7□-N	4.7	100	20, 30	0.030	6.8(6.12)	4.0(3.60)	4R7
LVC606045-6R8□-N	6.8	100	20, 30	0.042	5.7(5.13)	3.3(2.97)	6R8
LVC606045-100□-N	10	100	20, 30	0.060	4.6(4.14)	2.6(2.34)	100
LVC606045-150□-N	15	100	20, 30	0.090	3.8(3.42)	2.2(1.98)	150
LVC606045-220□-N	22	100	20, 30	0.130	3.3(2.97)	1.9(1.71)	220

- When ordering, please specify tolerance and packaging codes
- Tolerance : M = ±20% , T = ±30%
- L : Agilent/HP 4284A + Agilent/HP 16334A, 100KHz with 1V
- Isat & Iirms : Agilent/HP 4284A, 100KHz with 1V
- Rdc : Digital Milliohm Meter Chroma 16502, or equivalent
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- Iirms for a 40°C rise above 25°C ambient
- Operating temperature range from -55°C to 125°C. (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer



Packaging Specifications

Tape Dimensions

Figure 1

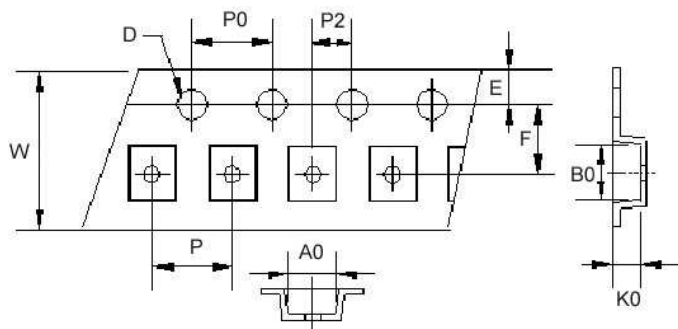
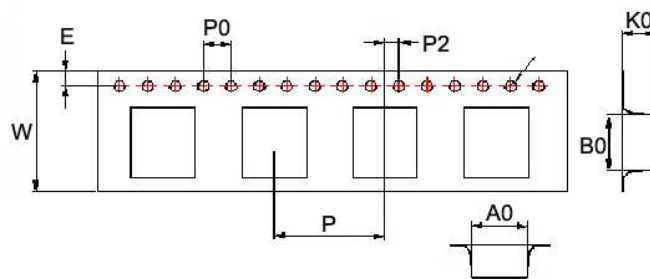


Figure 2



Reel Dimensions

Figure 1

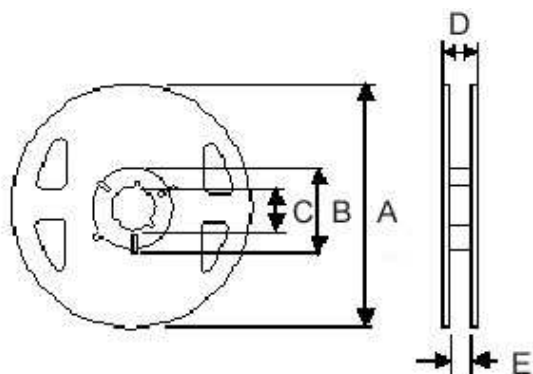
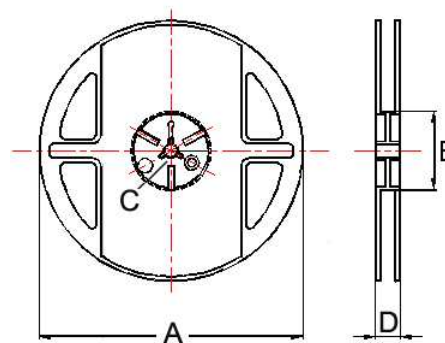


Figure 2



Dimensions in mm

TYPE	Fig	Tape Dimensions										Reel Dimensions					Quantity PCS / Reel
		A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	
LVC201B10	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
LVC252A12	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
LVC404018	2	4.25	4.25	2.10	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	800
LVC505040	2	5.30	5.30	4.40	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	-	1500
LVC606028	2	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	17.4	-	1500
LVC606045	2	6.25	6.25	4.65	1.55	1.75	7.5	16	12	4	2	330	100	13	17.4	-	1000