

LVF Series



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

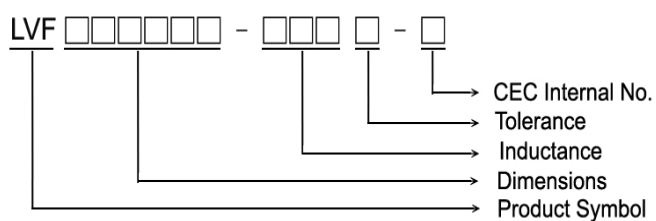
Features

- 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

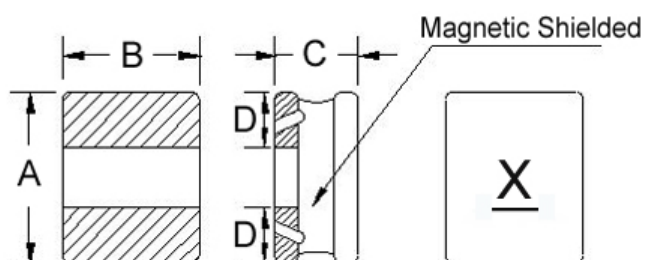
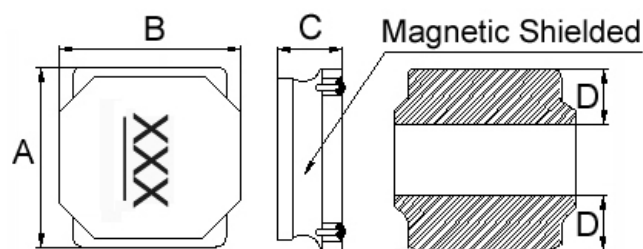


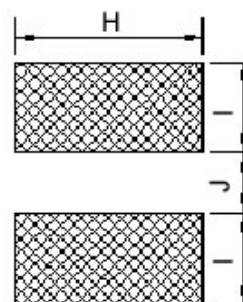
Figure 2



Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
LVF201B12	1	2.0±0.25	1.6±0.25	1.2±0.05	0.6	1.8	0.8	0.8
LVF252A10	1	2.5±0.25	2.0±0.25	1.02 Max	0.8	2.2	0.85	0.8
LVF252A12	1	2.5±0.25	2.0±0.25	1.2±0.05	0.8	2.2	0.85	0.8
LVF303010	1	3.0±0.20	3.0±0.20	1.02 Max	1.0	3.2	1.1	1.0
LVF303012	1	3.0±0.20	3.0±0.20	1.20 Max	1.0	3.2	1.1	1.0
LVF303015	1	3.0±0.20	3.0±0.20	1.50 Max	1.0	3.2	1.1	1.0
LVF404012	1	4.0±0.20	4.0±0.20	1.2±0.1	1.5	4.2	1.5	1.2
LVF404015	2	4.0±0.25	4.0±0.25	1.5±0.2	1.3	3.7	1.5	1.2
LVF404026	2	4.0±0.20	4.0±0.25	2.6±0.2	1.4	3.7	1.5	1.2

Recommended Pattern

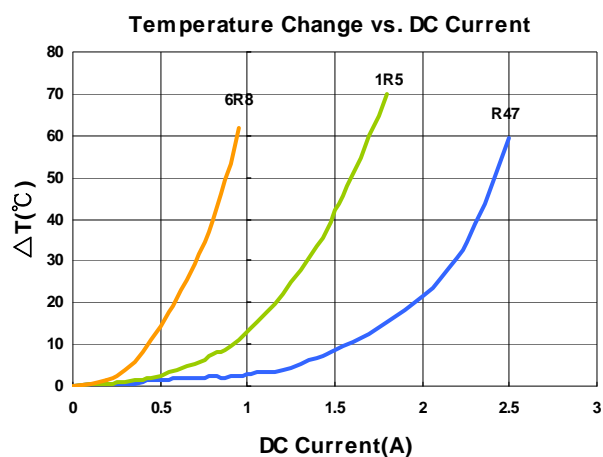
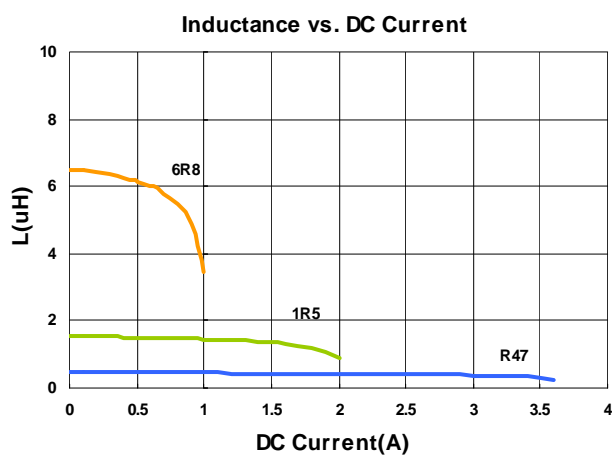


Electrical Characteristics

Part Number	Inductance (μH)	Test Frequency (MHz)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF201B12-R47□-N	0.47	1	20, 30	0.051	2.70(2.160)	2.30(1.840)	A
LVF201B12-1R5□-N	1.5	1	20, 30	0.130	1.60(1.280)	1.45(1.160)	D
LVF201B12-6R8□-N	6.8	1	20, 30	0.465	0.82(0.656)	0.78(0.624)	H

- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = $\pm 30\%$, M = $\pm 20\%$
- 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 -40°C to 125°C . (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

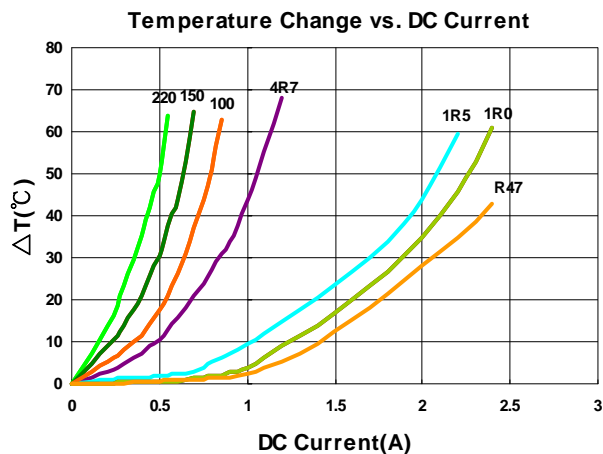
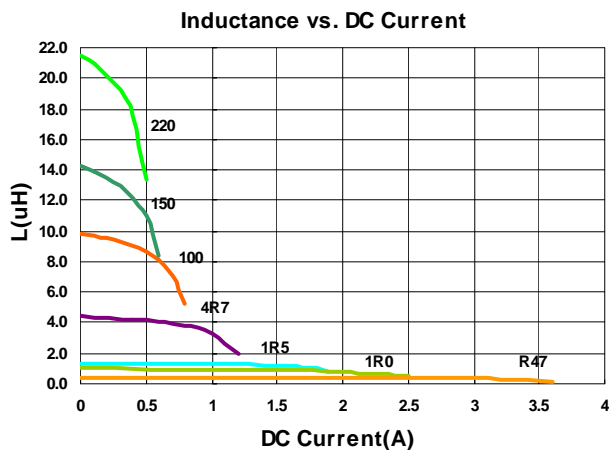


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF252A10-R47□-N	0.47	1	20, 30	0.045	2.80(2.240)	2.30(1.84)	A
LVF252A10-1R0□-N	1.0	1	20, 30	0.066	1.98(1.584)	2.05(1.64)	B
LVF252A10-1R5□-N	1.5	1	20, 30	0.095	1.70(1.360)	1.85(1.84)	C
LVF252A10-4R7□-N	4.7	1	20, 30	0.285	0.92(0.736)	0.95(0.76)	F
LVF252A10-100□-N	10	1	20, 30	0.535	0.60(0.480)	0.70(0.56)	H
LVF252A10-150□-N	15	1	20, 30	0.810	0.50(0.400)	0.55(0.44)	I
LVF252A10-220□-N	22	1	20, 30	1.200	0.40(0.320)	0.44(0.352)	J

- 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 -40°C to 125°C . (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

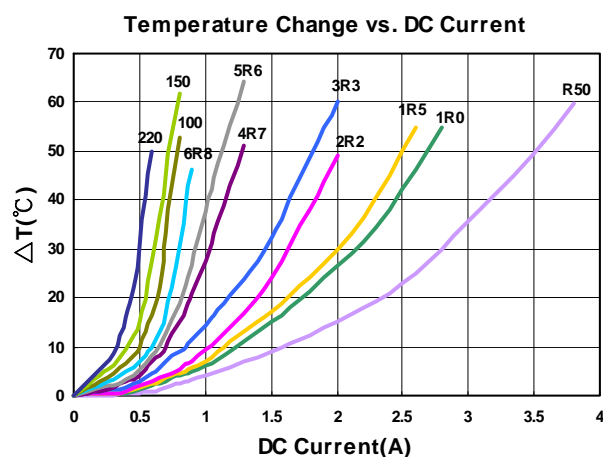
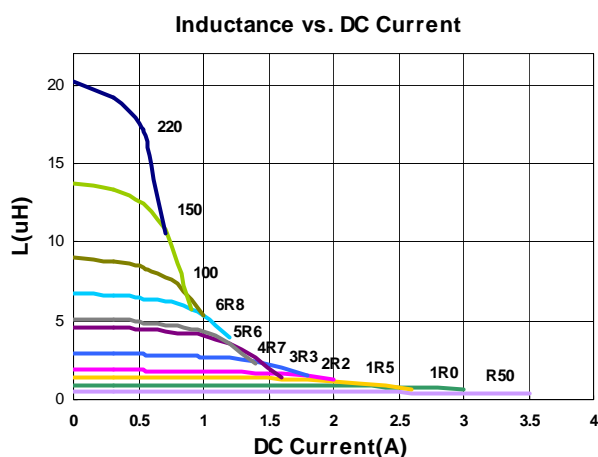


Electrical Characteristics

Part Number	Inductance (μ H)	Test Frequency (MHz)	Tolerance (\pm %)	RDC (Ω) $\pm 30\%$	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF252A12-R50□-N	0.50	1	20, 30	0.028	3.50(2.80)	3.00(2.4)	B
LVF252A12-1R0□-N	1.0	1	20, 30	0.050	2.50(2.00)	2.40(1.92)	C
LVF252A12-1R2□-N	1.2	1	20, 30	0.053	2.10(1.68)	2.35(1.88)	D
LVF252A12-1R5□-N	1.5	1	20, 30	0.068	1.95(1.56)	2.30(1.84)	E
LVF252A12-2R2□-N	2.2	1	20, 30	0.080	1.80(1.44)	1.80(1.44)	F
LVF252A12-3R3□-N	3.3	1	20, 30	0.130	1.45(1.16)	1.50(1.20)	G
LVF252A12-4R7□-N	4.7	1	20, 30	0.190	1.10(0.88)	1.10(0.88)	H
LVF252A12-5R6□-N	5.6	1	20, 30	0.210	1.05(0.84)	1.00(0.80)	I
LVF252A12-6R8□-N	6.8	1	20, 30	0.300	0.95(0.76)	0.80(0.64)	J
LVF252A12-100□-N	10	1	20, 30	0.385	0.88(0.704)	0.70(0.56)	K
LVF252A12-150□-N	15	1	20, 30	0.570	0.68(0.544)	0.62(0.496)	L
LVF252A12-220□-N	22	1	20, 30	0.810	0.55(0.440)	0.53(0.424)	M

- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = $\pm 30\%$, M = $\pm 20\%$
- 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 -40°C to 125°C. (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

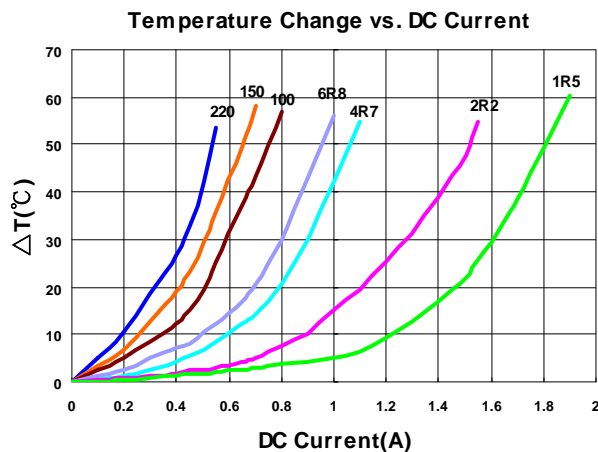
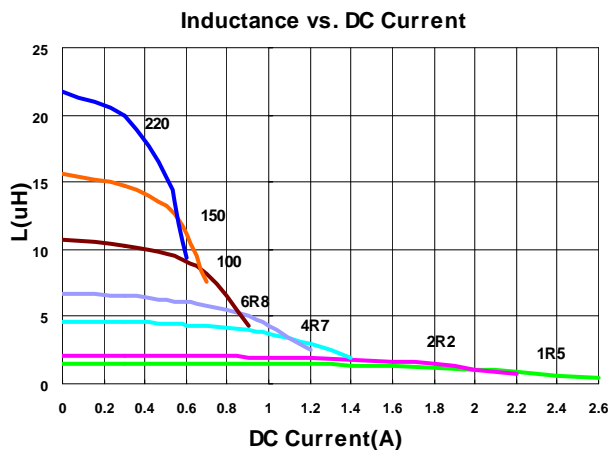


Electrical Characteristics

Part Number	Inductance (μ H)	Test Frequency (MHz)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF303010-1R5□-N	1.5	1	20, 30	0.085	1.80(1.44)	1.70(1.36)	1R5
LVF303010-2R2□-N	2.2	1	20, 30	0.100	1.50(1.20)	1.4(1.12)	2R2
LVF303010-4R7□-N	4.7	1	20, 30	0.205	1.00(0.80)	0.95(0.76)	4R7
LVF303010-6R8□-N	6.8	1	20, 30	0.310	0.87(0.696)	0.85(0.68)	6R8
LVF303010-100□-N	10	1	20, 30	0.430	0.64(0.512)	0.63(0.504)	100
LVF303010-150□-N	15	1	20, 30	0.625	0.56(0.448)	0.55(0.44)	150
LVF303010-220□-N	22	1	20, 30	0.870	0.47(0.376)	0.46(0.368)	220

- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = $\pm 30\%$, M = $\pm 20\%$
- 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 -40°C to 125°C . (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

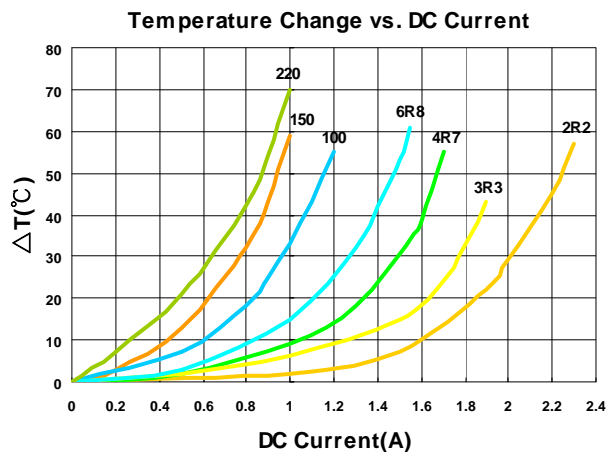
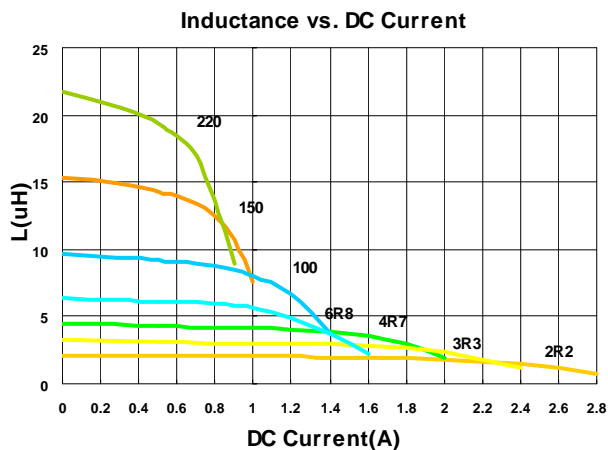


Electrical Characteristics

Part Number	Inductance (μ H)	Test Frequency (MHz)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF303012-2R2□-N	2.2	1	20, 30	0.092	2.10(1.680)	2.00(1.600)	2R2
LVF303012-3R3□-N	3.3	1	20, 30	0.13	1.84(1.472)	1.80(1.440)	3R3
LVF303012-4R7□-N	4.7	1	20, 30	0.18	1.56(1.248)	1.52(1.216)	4R7
LVF303012-6R8□-N	6.8	1	20, 30	0.25	1.32(1.056)	1.30(1.040)	6R8
LVF303012-100□-N	10	1	20, 30	0.42	1.06(0.848)	1.00(0.880)	100
LVF303012-150□-N	15	1	20, 30	0.56	0.82(0.656)	0.80(0.640)	150
LVF303012-220□-N	22	1	20, 30	0.86	0.64(0.512)	0.62(0.496)	220

- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = $\pm 30\%$, M = $\pm 20\%$
- 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 -40°C to 125°C . (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

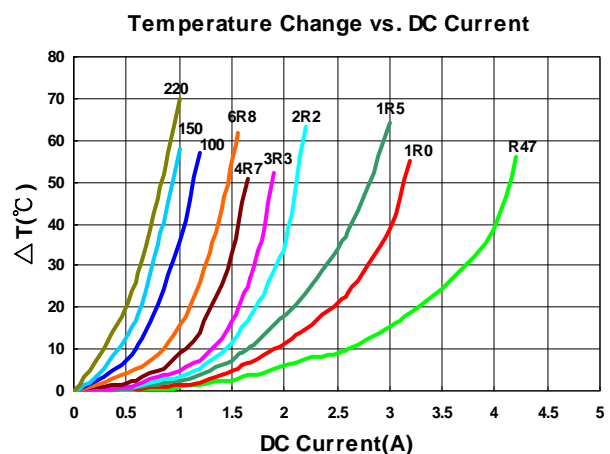
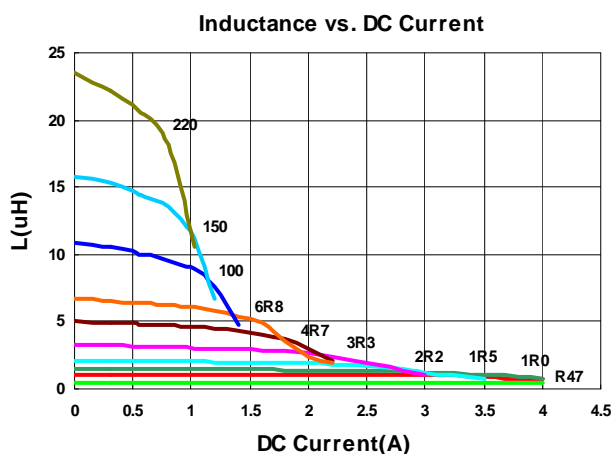


Electrical Characteristics

Part Number	Inductance (μ H)	Test Frequency (MHz)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF303015-R47□-N	0.47	1	20, 30	0.036	4.7(3.760)	4.0(3.200)	R47
LVF303015-1R0□-N	1.0	1	20, 30	0.054	3.4(2.720)	3.0(2.400)	1R0
LVF303015-1R5□-N	1.5	1	20, 30	0.063	3.0(2.400)	2.6(2.080)	1R5
LVF303015-2R2□-N	2.2	1	20, 30	0.090	2.3(1.840)	2.0(1.600)	2R2
LVF303015-3R3□-N	3.3	1	20, 30	0.125	1.9(1.520)	1.80(1.440)	3R3
LVF303015-4R7□-N	4.7	1	20, 30	0.170	1.58(1.264)	1.52(1.216)	4R7
LVF303015-6R8□-N	6.8	1	20, 30	0.235	1.34(1.072)	1.30(1.040)	6R8
LVF303015-100□-N	10	1	20, 30	0.360	1.06(0.848)	1.00(0.800)	100
LVF303015-150□-N	15	1	20, 30	0.550	0.90(0.720)	0.80(0.640)	150
LVF303015-220□-N	22	1	20, 30	0.770	0.76(0.608)	0.65(0.520)	220

- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = $\pm 30\%$, M = $\pm 20\%$
- 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 -40°C to 125°C . (Including self - temperature rise)

Test Instruments : HP4284A Material/Impedance Analyzer

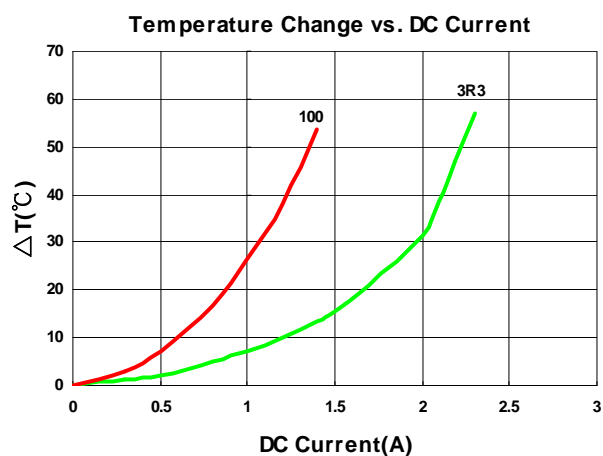
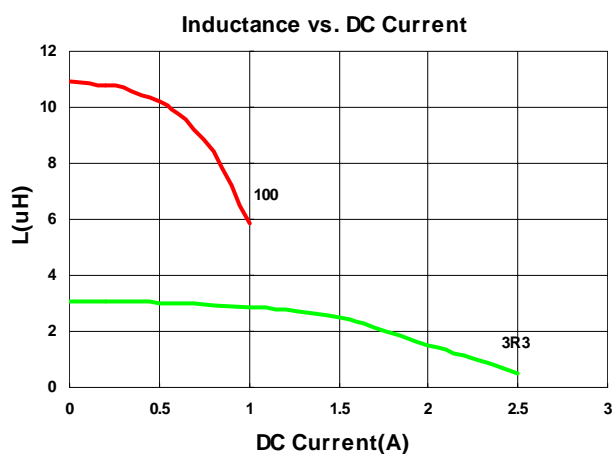


Electrical Characteristics

Part Number	Inductance (μ H)	Test Frequency (MHz)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF404012-3R3□-N	3.3	1	20, 30	0.072	1.52(1.21)	2.10(1.68)	3R3
LVF404012-100□-N	10	1	20, 30	0.195	0.76(0.60)	1.20(0.96)	100

- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = $\pm 30\%$, M = $\pm 20\%$
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502, or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
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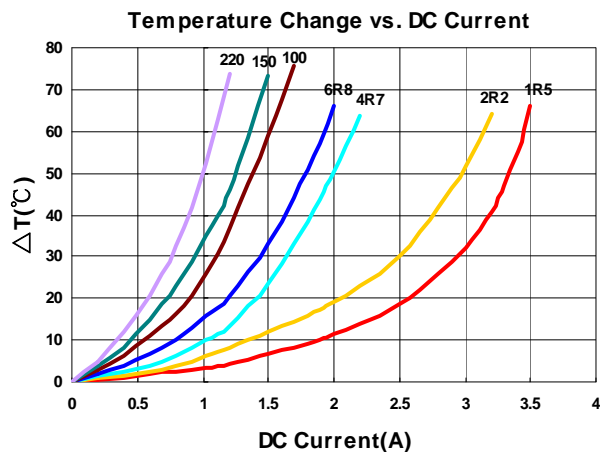
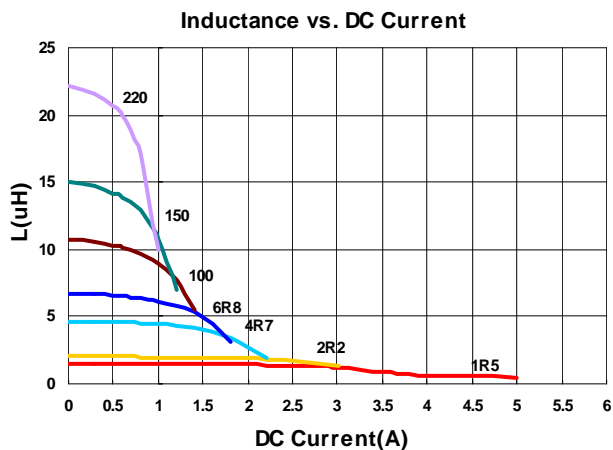


Electrical Characteristics

Part Number	Inductance (μ H)	Test Frequency (MHz)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF404015-1R5□-N	1.5	1	20, 30	0.041	3.00(2.40)	3.2(2.56)	1R5
LVF404015-2R2□-N	2.2	1	20, 30	0.054	2.30(1.84)	2.60(2.08)	2R2
LVF404015-4R7□-N	4.7	1	20, 30	0.100	1.60(1.28)	1.80(1.44)	4R7
LVF404015-6R8□-N	6.8	1	20, 30	0.138	1.40(1.12)	1.60(1.28)	6R8
LVF404015-100□-N	10	1	20, 30	0.200	1.00(0.80)	1.20(0.96)	100
LVF404015-150□-N	15	1	20, 30	0.300	0.92(0.73)	1.05(0.84)	150
LVF404015-220□-N	22	1	20, 30	0.400	0.72(0.57)	0.85(0.68)	220

- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = $\pm 30\%$, M = $\pm 20\%$
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502, or equivalent
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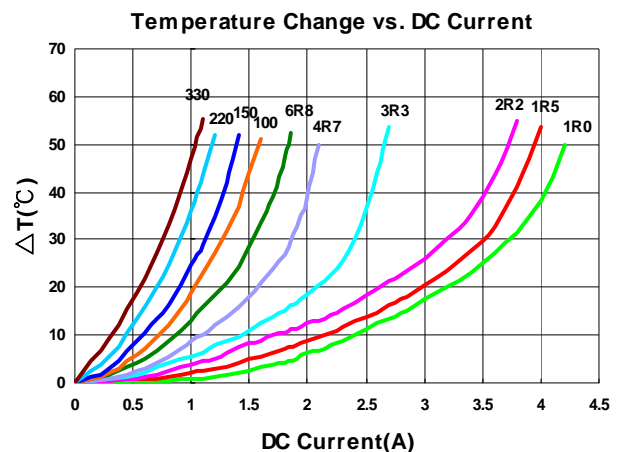
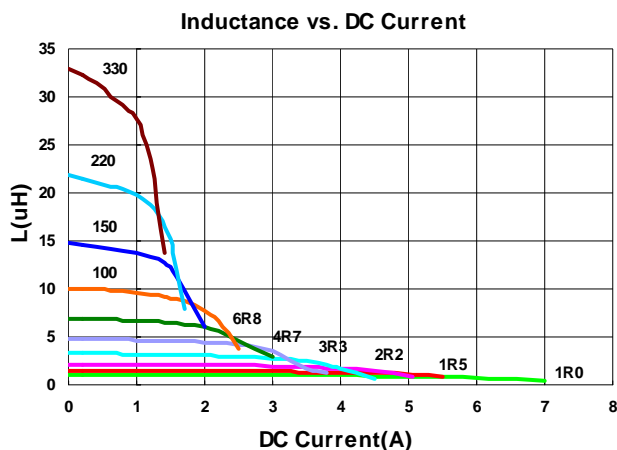


Electrical Characteristics

Part Number	Inductance (μ H)	Test Frequency (KHz)	Tolerance (\pm %)	RDC (Ω) \pm 30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LVF404026-1R0□-N	1.0	100	20, 30	0.030	5.00(4.00)	4.00(3.20)	1R0
LVF404026-1R5□-N	1.5	100	20, 30	0.035	4.20(3.36)	3.70(2.96)	1R5
LVF404026-2R2□-N	2.2	100	20, 30	0.045	3.80(3.04)	3.50(2.80)	2R2
LVF404026-3R3□-N	3.3	100	20, 30	0.067	3.00(2.40)	2.50(2.00)	3R3
LVF404026-4R7□-N	4.7	100	20, 30	0.092	2.60(2.08)	2.00(1.60)	4R7
LVF404026-5R6□-N	5.6	100	20, 30	0.110	2.30(1.84)	1.90(1.52)	5R6
LVF404026-6R8□-N	6.8	100	20, 30	0.130	2.00(1.60)	1.70(1.36)	6R8
LVF404026-100□-N	10	100	20, 30	0.188	1.90(1.52)	1.40(1.12)	100
LVF404026-150□-N	15	100	20, 30	0.240	1.45(1.16)	1.20(0.96)	150
LVF404026-220□-N	22	100	20, 30	0.330	1.22(0.97)	1.00(0.80)	220
LVF404026-330□-N	33	100	20, 30	0.480	1.00(0.80)	0.82(0.65)	330

- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = \pm 30% , M = \pm 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.
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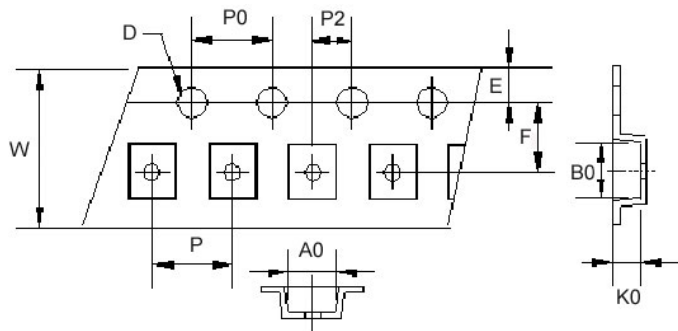
Test Instruments : HP4284A Material/Impedance Analyzer



Packaging Specifications

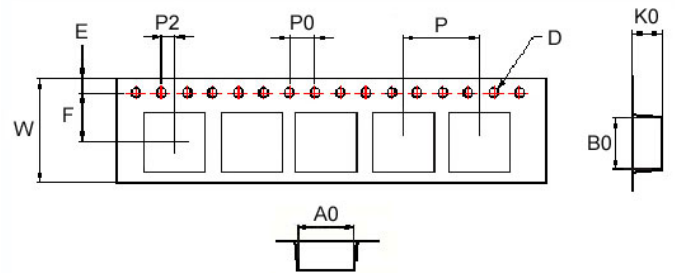
Tape Dimensions

Figure 1



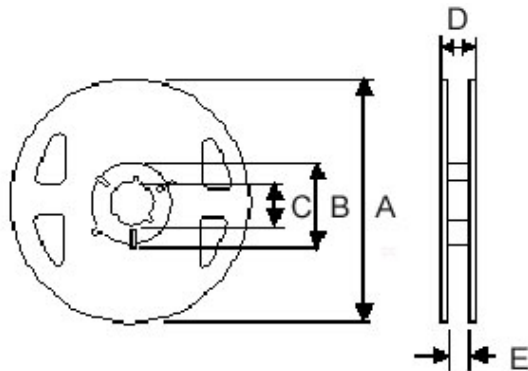
Tape Dimensions

Figure 2



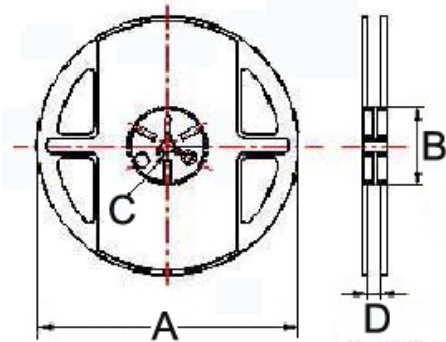
Reel Dimensions

Figure 1



Reel Dimensions

Figure 2



Dimensions in mm

TYPE	Fig	Tape Dimensions										Reel Dimensions					Quantity PCS / Reel
		A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	
LVF201B12	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
LVF252A10	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
LVF252A12	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
LVF303010	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
LVF303012	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
LVF303015	1	3.15	3.15	1.60	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
LVF404012	2	4.25	4.25	1.30	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
LVF404015	2	4.25	4.25	1.70	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
LVF404026	2	4.25	4.25	3.00	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	500