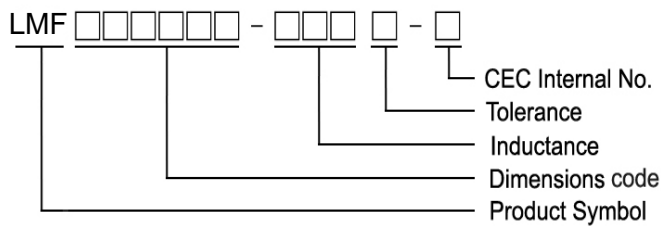


LMF series, an automatic assembly constructed power inductor, is shielded with magnetic resin and suitable for portable DC-DC converter applications.

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

Product Identification



Applications

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

Shape and Dimensions

Figure 1

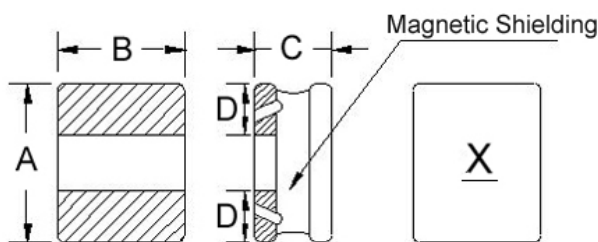
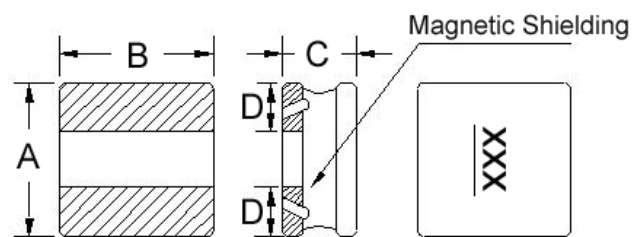


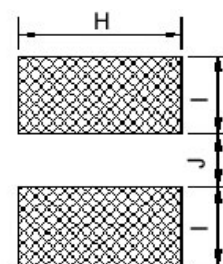
Figure 2



Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
LMF201B12	1	2.0±0.25	1.6±0.25	1.2±0.05	0.6	1.8	0.8	0.8
LMF252A10	1	2.5±0.25	2.0±0.25	1.02 Max	0.8	2.2	0.85	0.8
LMF252A12	1	2.5±0.25	2.0±0.25	1.2±0.05	0.8	2.2	0.85	0.8
LMF303010	2	3.0±0.20	3.0±0.20	1.02 Max	1.0	3.2	1.1	1.0
LMF303012	2	3.0±0.20	3.0±0.20	1.2 Max	1.0	3.2	1.1	1.0
LMF303015	2	3.0±0.20	3.0±0.20	1.5 Max	1.0	3.2	1.1	1.0
LMF404012	2	4.0±0.20	4.0±0.20	1.2±0.1	1.5	4.2	1.5	1.2

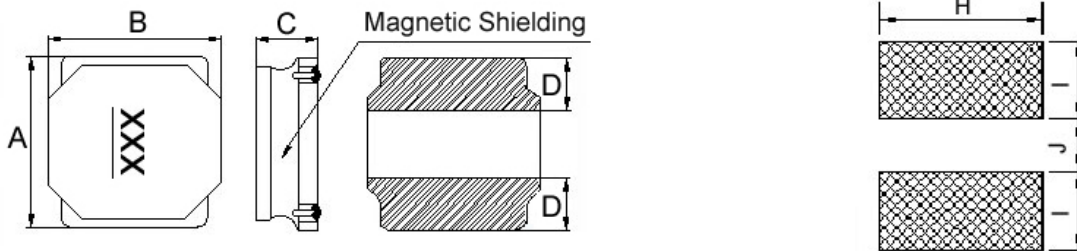
Recommended Pattern



Shape and Dimensions

Recommended Pattern

Figure 3



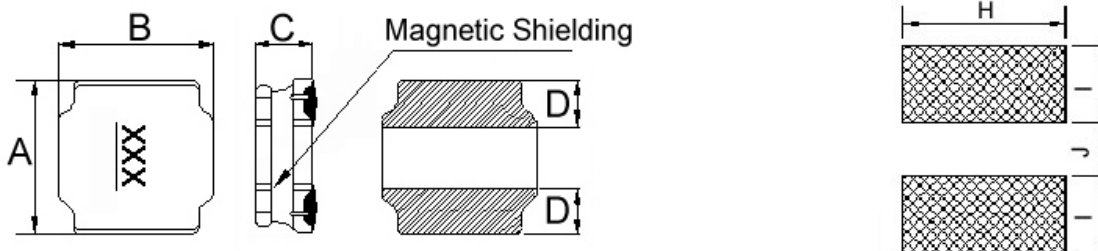
Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
LMF404015	3	4.0±0.25	4.0±0.25	1.5±0.2	1.3	3.7	1.5	1.2
LMF404018	3	4.0±0.20	4.0±0.20	1.9 Max	1.3	3.7	1.5	1.2
LMF404026	3	4.0±0.20	4.0±0.25	2.6±0.2	1.4	3.7	1.6	1.2

Shapes and Dimensions

Recommended Pattern

Figure 4



Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
LMF505020	4	5.0±0.20	5.0±0.20	2.0±0.2	1.8±0.3	4.2	1.6	2.0
LMF606020	4	6.0±0.20	6.0±0.20	2.0±0.2	1.7±0.3	5.7	1.7	2.8
LMF606028	4	6.0±0.20	6.0±0.20	2.8±0.2	1.9±0.3	5.7	1.8	2.6

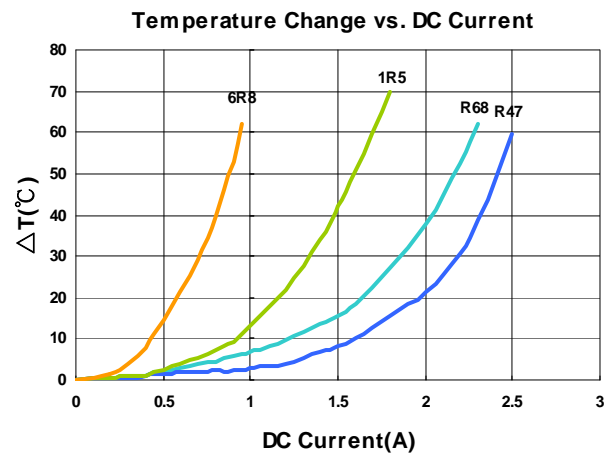
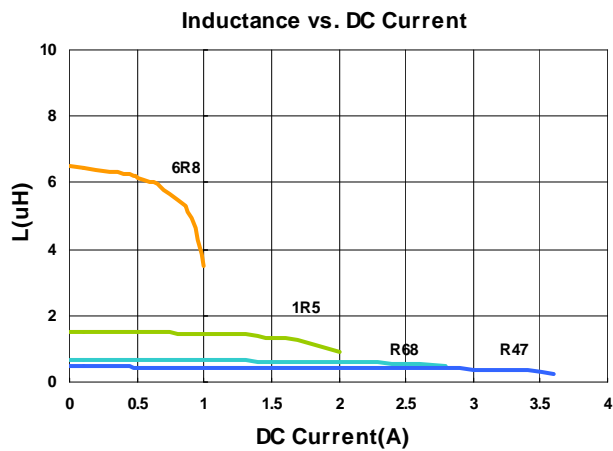
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LMF201B12-R47□-N	0.47	20, 30	1	0.051	2.70(2.43)	2.30(2.07)	A
LMF201B12-R68□-N	0.68	20, 30	1	0.074	2.20(1.98)	2.00(1.80)	L
LMF201B12-1R5□-N	1.5	20, 30	1	0.130	1.60(1.44)	1.45(1.30)	D
LMF201B12-6R8□-N	6.8	20, 30	1	0.465	0.82(0.73)	0.78(0.70)	H

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : Agilent HP4287A+Agilent HP16197A, 1MHz 200mV
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



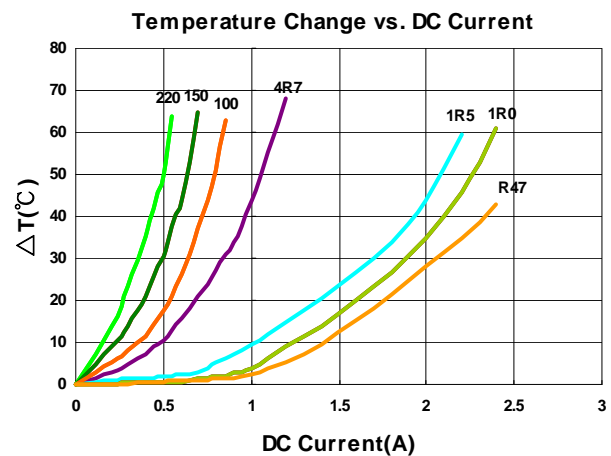
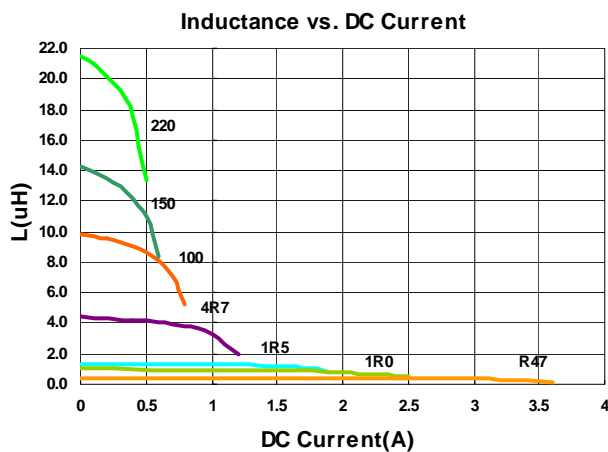
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LMF252A10-R47□-N	0.47	20, 30	1	0.045	2.80(2.52)	2.30(2.07)	A
LMF252A10-R47□-N	1.0	20, 30	1	0.066	1.98(1.78)	2.05(1.84)	B
LMF252A10-1R5□-N	1.5	20, 30	1	0.095	1.70(1.53)	1.85(1.66)	C
LMF252A10-4R7□-N	4.7	20, 30	1	0.285	0.92(0.82)	0.95(0.85)	F
LMF252A10-100□-N	10	20, 30	1	0.535	0.60(0.54)	0.70(0.63)	H
LMF252A10-150□-N	15	20, 30	1	0.810	0.50(0.45)	0.55(0.49)	I
LMF252A10-220□-N	22	20, 30	1	1.200	0.40(0.36)	0.44(0.39)	J

Note: When ordering, please specify tolerance code. Tolerance: M=±20%, T =±30%

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : Agilent HP4287A+Agilent HP16197A, 1MHz 200mV
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & I rms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



Electrical Characteristics

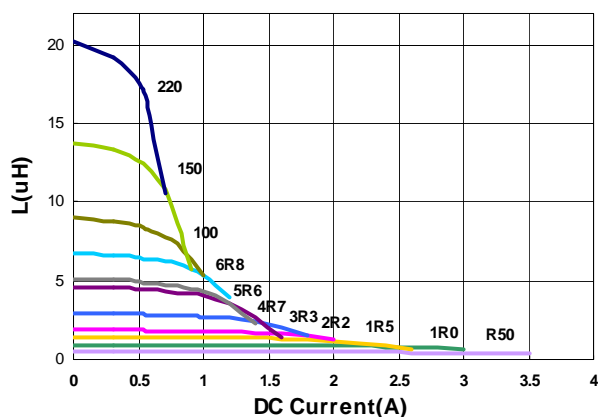
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LMF252A12-R50□-N	0.50	20, 30	1	0.028	3.50(3.15)	3.00(2.70)	B
LMF252A12-1R0□-N	1.0	20, 30	1	0.050	2.50(2.25)	2.40(2.16)	C
LMF252A12-1R2□-N	1.2	20, 30	1	0.053	2.10(1.89)	2.35(2.11)	D
LMF252A12-1R5□-N	1.5	20, 30	1	0.068	1.95(1.75)	2.30(2.07)	E
LMF252A12-2R2□-N	2.2	20, 30	1	0.080	1.80(1.62)	1.80(1.62)	F
LMF252A12-3R3□-N	3.3	20, 30	1	0.130	1.45(1.30)	1.50(1.35)	G
LMF252A12-4R7□-N	4.7	20, 30	1	0.190	1.10(0.99)	1.10(0.99)	H
LMF252A12-5R6□-N	5.6	20, 30	1	0.210	1.05(0.94)	1.00(0.90)	I
LMF252A12-6R8□-N	6.8	20, 30	1	0.300	0.95(0.85)	0.80(0.72)	J
LMF252A12-100□-N	10	20, 30	1	0.385	0.88(0.79)	0.70(0.63)	K
LMF252A12-150□-N	15	20, 30	1	0.570	0.68(0.61)	0.62(0.55)	L
LMF252A12-220□-N	22	20, 30	1	0.810	0.55(0.49)	0.53(0.47)	M

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

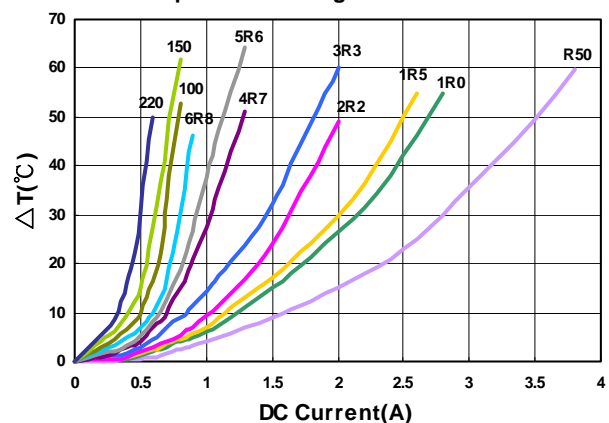
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : Agilent HP4287A+Agilent HP16197A, 1MHz 200mV
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & I rms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer

Inductance vs. DC Current



Temperature Change vs. DC Current



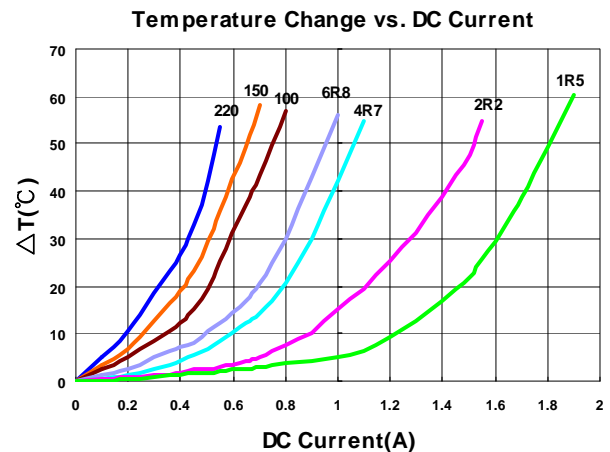
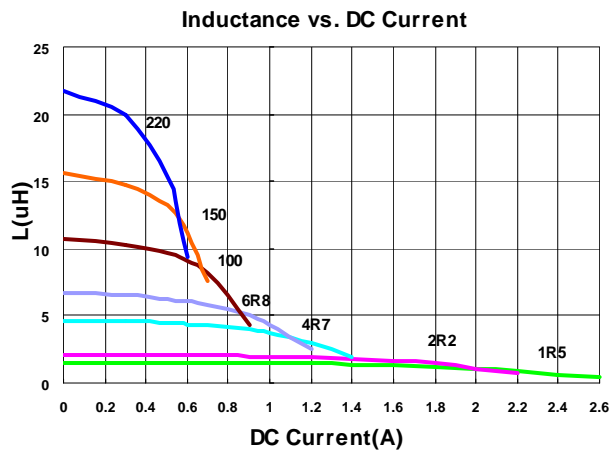
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LMF303010-1R5□-N	1.5	20, 30	1	0.085	1.80(1.62)	1.70(1.53)	1R5
LMF303010-2R2□-N	2.2	20, 30	1	0.100	1.50(1.35)	1.40(1.26)	2R2
LMF303010-4R7□-N	4.7	20, 30	1	0.205	1.00(0.90)	0.95(0.85)	4R7
LMF303010-6R8□-N	6.8	20, 30	1	0.310	0.87(0.78)	0.85(0.76)	6R8
LMF303010-10□-N	10	20, 30	1	0.430	0.64(0.57)	0.63(0.56)	100
LMF303010-15□-N	15	20, 30	1	0.625	0.56(0.50)	0.55(0.49)	150
LMF303010-22□-N	22	20, 30	1	0.870	0.47(0.42)	0.46(0.41)	220
LMF303010-47□-N	47	20, 30	1	1.750	0.29(0.26)	0.28(0.25)	470

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
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 Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



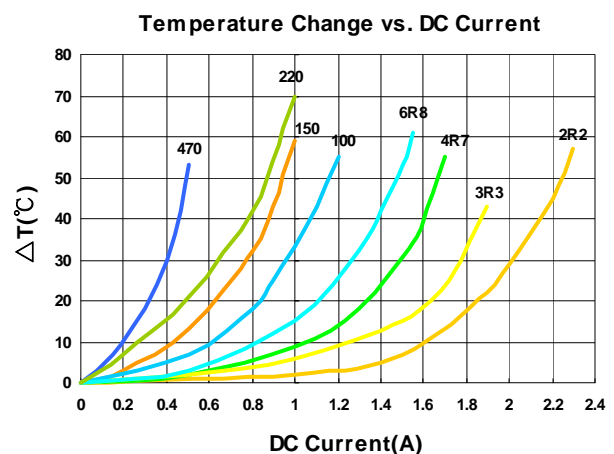
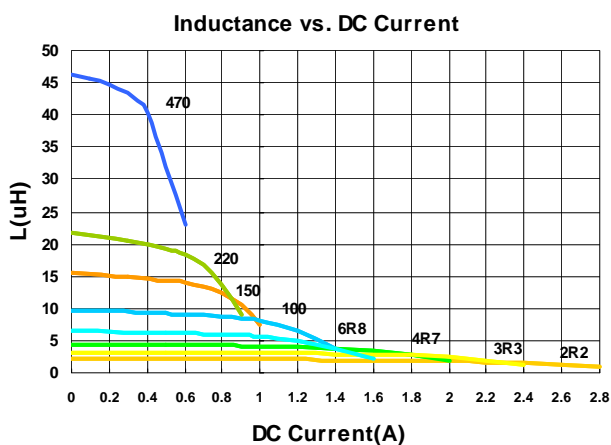
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LMF303012-2R2□-N	2.2	20, 30	1	0.092	2.10(1.89)	2.00(1.80)	2R2
LMF303012-3R3□-N	3.3	20, 30	1	0.13	1.84(1.65)	1.80(1.62)	3R3
LMF303012-4R7□-N	4.7	20, 30	1	0.18	1.56(1.40)	1.52(1.36)	4R7
LMF303012-6R8□-N	6.8	20, 30	1	0.25	1.32(1.18)	1.30(1.17)	6R8
LMF303012-100□-N	10	20, 30	1	0.42	1.06(0.95)	1.00(0.90)	100
LMF303012-150□-N	15	20, 30	1	0.56	0.82(0.73)	0.80(0.72)	150
LMF303012-220□-N	22	20, 30	1	0.86	0.64(0.57)	0.62(0.55)	220
LMF303012-470□-N	47	20, 30	1	1.82	0.49(0.44)	0.43(0.38)	470

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

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 Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



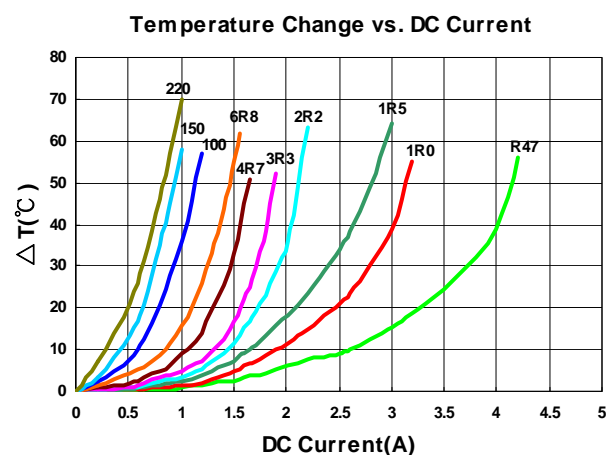
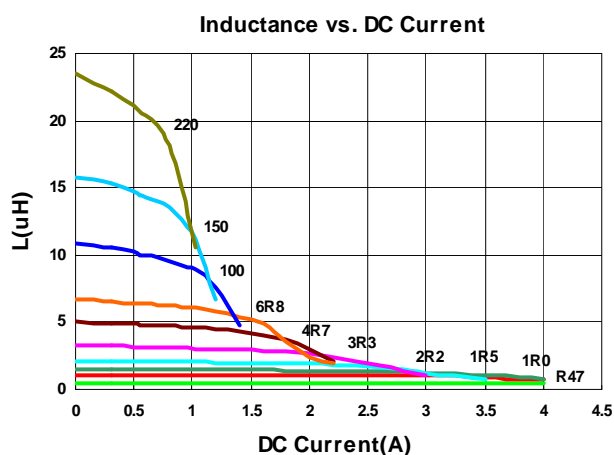
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LMF303015-R47□-N	0.47	20, 30	1	0.036	4.7(4.23)	4.0(3.60)	R47
LMF303015-1R0□-N	1.0	20, 30	1	0.054	3.4(3.06)	3.0(2.70)	1R0
LMF303015-1R5□-N	1.5	20, 30	1	0.063	3.0(2.70)	2.6(2.34)	1R5
LMF303015-2R2□-N	2.2	20, 30	1	0.090	2.3(2.07)	2.0(1.80)	2R2
LMF303015-3R3□-N	3.3	20, 30	1	0.125	1.9(1.71)	1.80(1.62)	3R3
LMF303015-4R7□-N	4.7	20, 30	1	0.170	1.58(1.42)	1.52(1.36)	4R7
LMF303015-6R8□-N	6.8	20, 30	1	0.235	1.34(1.20)	1.30(1.17)	6R8
LMF303015-100□-N	10	20, 30	1	0.360	1.06(0.95)	1.00(0.90)	100
LMF303015-150□-N	15	20, 30	1	0.550	0.90(0.81)	0.80(0.72)	150
LMF303015-220□-N	22	20, 30	1	0.770	0.76(0.68)	0.65(0.58)	220
LMF303015-330□-N	33	20, 30	1	0.930	0.65(0.58)	0.60(0.54)	330
LMF303015-470□-N	47	20, 30	1	1.500	0.52(0.46)	0.42(0.37)	470
LMF303015-101□-N	100	20, 30	1	2.700	0.36(0.32)	0.3(0.27)	101

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

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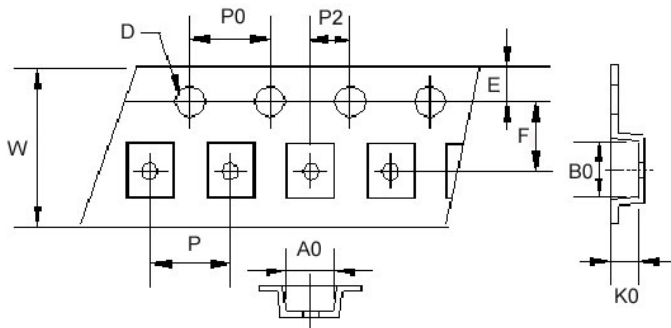
Test Instruments : HP4284A Material/Impedance Analyzer



Packaging Specifications

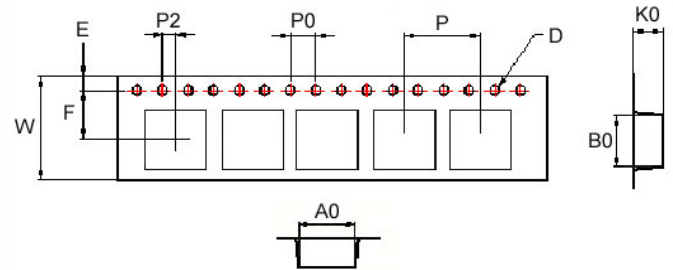
Tape Dimensions

Figure 1



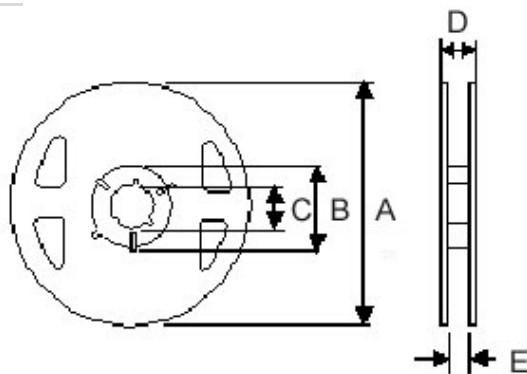
Tape Dimensions

Figure 2



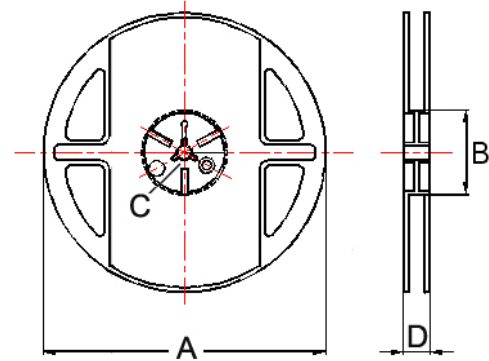
Reel Dimensions

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	
LMF201B12	1	1.90	2.20	1.30	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LMF252A10	1	2.40	2.70	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LMF252A12	1	2.40	2.70	1.35	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LMF303010	1	3.20	3.20	1.40	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LMF303012	1	3.20	3.20	1.40	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LMF303015	1	3.15	3.15	1.60	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LMF404012	2	4.25	4.25	1.30	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
LMF404015	2	4.25	4.25	1.70	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
LMF404018	2	4.25	4.25	2.10	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	800
LMF404026	2	4.25	4.25	3.00	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	500
LMF505020	2	5.25	5.25	2.20	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	-	2000
LMF606020	2	6.25	6.25	2.20	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	-	2000
LMF606028	2	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	-	1500
LMF808040	2	8.25	8.25	4.15	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	-	1000

Shanghai Leiditech Electronic Co.,Ltd
 Email: sale1@leiditech.com
 Tel : +86- 021 50828806
 Fax : +86- 021 50477059