



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

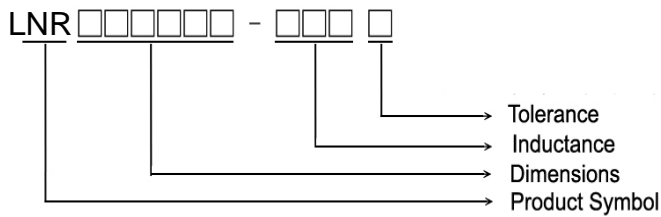
Features

- 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

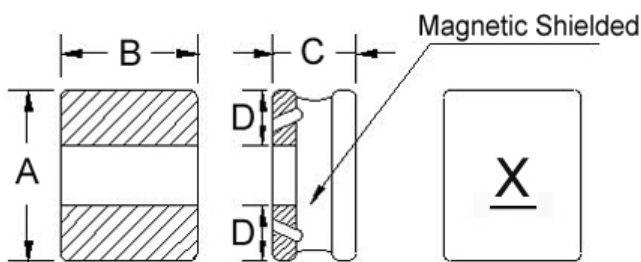
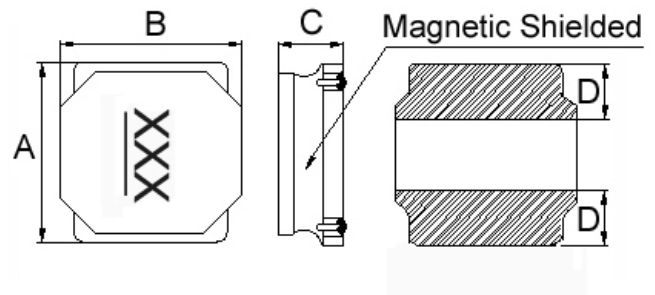


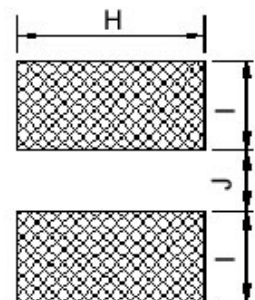
Figure 2



Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
LNR201612	1	2.0±0.25	1.6±0.25	1.2±0.05	0.6	1.8	0.8	0.8
LNR252010	1	2.5±0.25	2.0±0.25	1.02 Max	0.8	2.2	0.85	0.8
LNR252012	1	2.5±0.25	2.0±0.25	1.2±0.05	0.8	2.2	0.85	0.8
LNR303010	1	3.0±0.20	3.0±0.20	1.02 Max	1.0	3.0	1.0	1.0
LNR303012	1	3.0±0.20	3.0±0.20	1.20 Max	1.0	3.0	1.0	1.0
LNR303015	1	3.0±0.20	3.0±0.20	1.50 Max	1.0	3.0	1.0	1.0

Recommended Pattern

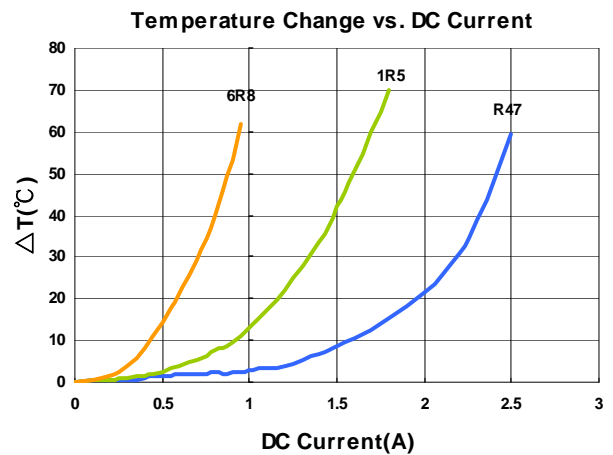
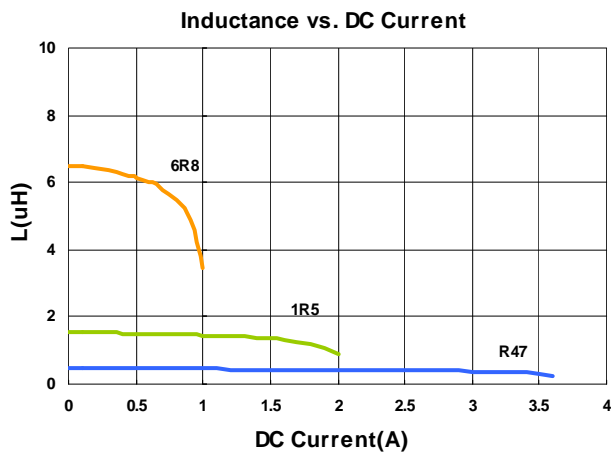


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR201612-R47M	0.47	1	20, 30	0.051	2.70(2.160)	2.30(1.840)
LNR201612-1R0M	1.0	1	20, 30	0.130	1.60(1.280)	1.45(1.160)
LNR201B12-6R8M	6.8	1	20, 30	0.465	0.82(0.656)	0.78(0.624)

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

Test Instruments : HP4284A Material/Impedance Analyzer

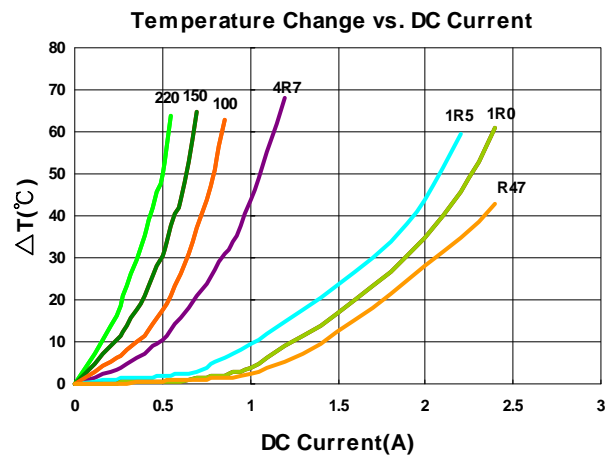
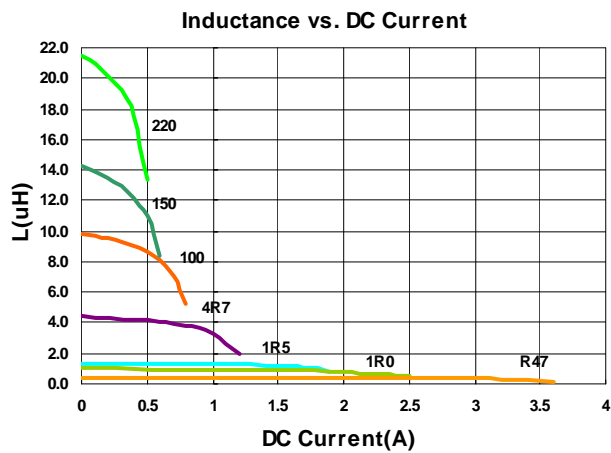


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR252010-R47M	0.47	1	20, 30	0.045	2.80(2.240)	2.30(1.84)
LNR252010-1R0M	1.0	1	20, 30	0.066	1.98(1.584)	2.05(1.64)
LNR252010-1R5M	1.5	1	20, 30	0.095	1.70(1.360)	1.85(1.84)
LNR252010-4R7M	4.7	1	20, 30	0.285	0.92(0.736)	0.95(0.76)
LNR252010-100M	10	1	20, 30	0.535	0.60(0.480)	0.70(0.56)
LNR252010-150M	15	1	20, 30	0.810	0.50(0.400)	0.55(0.44)
LNR252010-220M	22	1	20, 30	1.200	0.40(0.320)	0.44(0.352)

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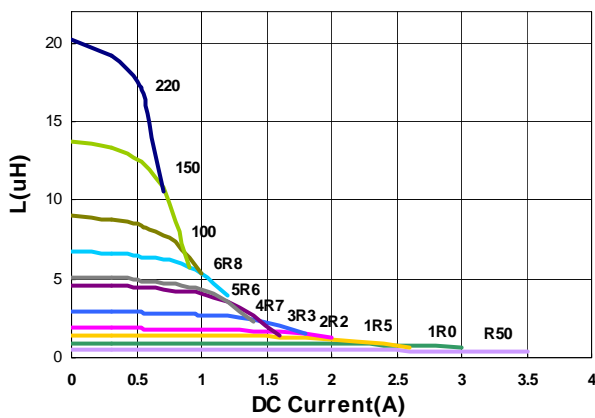
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR252012-R50M	0.50	1	20, 30	0.028	3.50(2.80)	3.00(2.4)
LNR252012-1R0M	1.0	1	20, 30	0.050	2.50(2.00)	2.40(1.92)
LNR252012-1R2M	1.2	1	20, 30	0.053	2.10(1.68)	2.35(1.88)
LNR252012-1R5M	1.5	1	20, 30	0.068	1.95(1.56)	2.30(1.84)
LNF252012-2R2M	2.2	1	20, 30	0.080	1.80(1.44)	1.80(1.44)
LNR252012-3R3M	3.3	1	20, 30	0.130	1.45(1.16)	1.50(1.20)
LNR252012-4R7M	4.7	1	20, 30	0.190	1.10(0.88)	1.10(0.88)
LNR252012-5R6M	5.6	1	20, 30	0.210	1.05(0.84)	1.00(0.80)
LNR252012-6R8M	6.8	1	20, 30	0.300	0.95(0.76)	0.80(0.64)
LNR252012-100M	10	1	20, 30	0.385	0.88(0.704)	0.70(0.56)
LNR252012-150M	15	1	20, 30	0.570	0.68(0.544)	0.62(0.496)
LNR252012-220M	22	1	20, 30	0.810	0.55(0.440)	0.53(0.424)

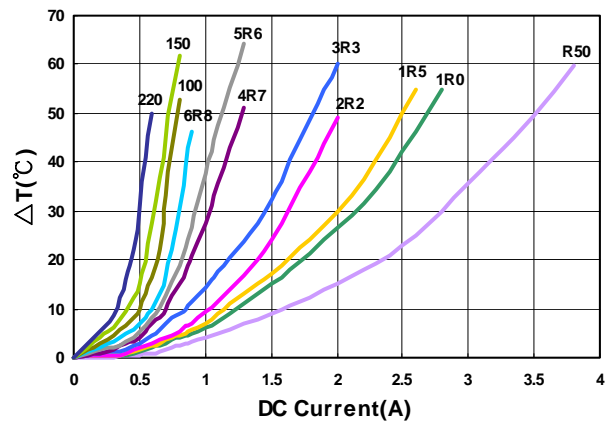
- When ordering, please specify tolerance and packaging codes.
- Tolerance : T = ±30% , M = ±20%
- L : Agilent/HP4287A+ Agilent/HP16197A, 1MHz 200mV
- RDC : Digital Milliohm Meter Chroma 16502, or equivalent
- Isat & Irms : Agilent/HP4284A, 1MHz 200mV
- Isat for Inductance drop 30% from its value without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



Temperature Change vs. DC Current

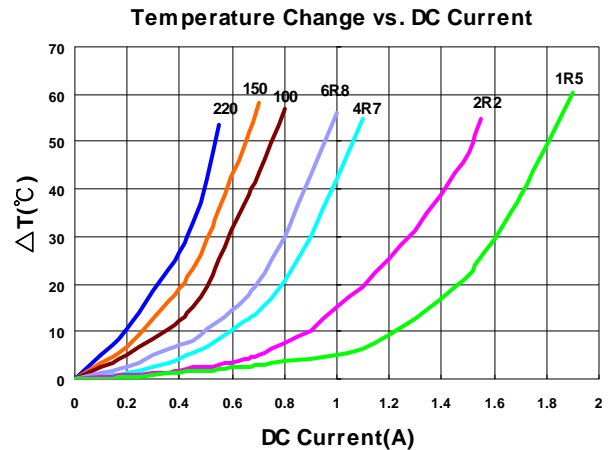
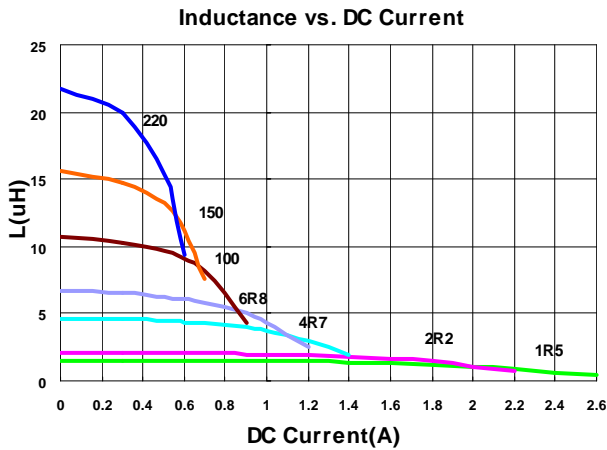


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR303010-1R5M	1.5	1	20, 30	0.085	1.80(1.44)	1.70(1.36)
LNR303010-2R2M	2.2	1	20, 30	0.100	1.50(1.20)	1.4(1.12)
LNR303010-4R7M	4.7	1	20, 30	0.205	1.00(0.80)	0.95(0.76)
LNR303010-6R8M	6.8	1	20, 30	0.310	0.87(0.696)	0.85(0.68)
LNR303010-100M	10	1	20, 30	0.430	0.64(0.512)	0.63(0.504)
LNR303010-150M	15	1	20, 30	0.625	0.56(0.448)	0.55(0.44)
LNR303010-220M	22	1	20, 30	0.870	0.47(0.376)	0.46(0.368)

- 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.
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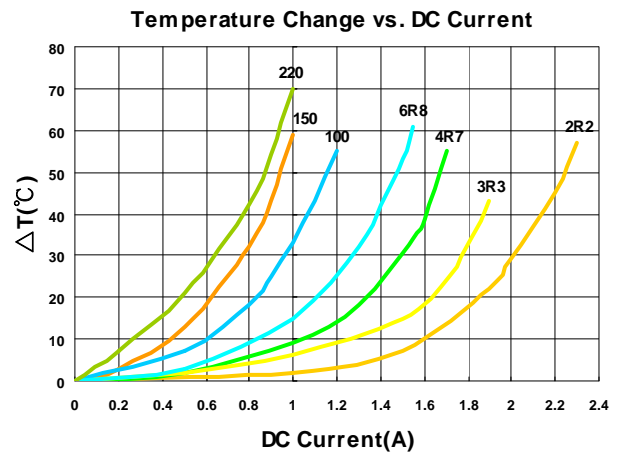
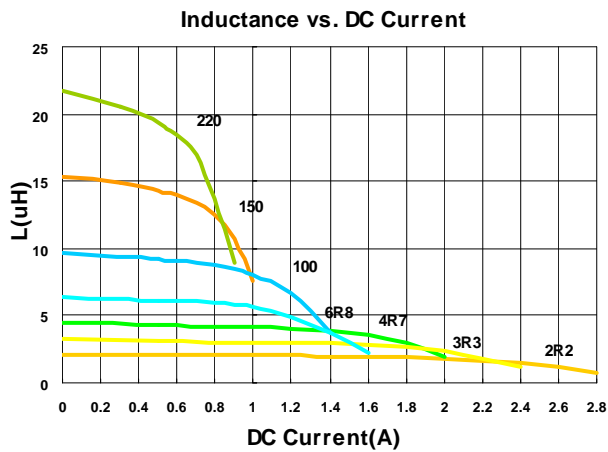


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR303012-2R2M	2.2	1	20, 30	0.092	2.10(1.680)	2.00(1.600)
LNR303012-3R3M	3.3	1	20, 30	0.13	1.84(1.472)	1.80(1.440)
LNR303012-4R7M	4.7	1	20, 30	0.18	1.56(1.248)	1.52(1.216)
LNR303012-6R8M	6.8	1	20, 30	0.25	1.32(1.056)	1.30(1.040)
LNR303012-100M	10	1	20, 30	0.42	1.06(0.848)	1.00(0.880)
LNR303012-150M	15	1	20, 30	0.56	0.82(0.656)	0.80(0.640)
LNR303012-220M	22	1	20, 30	0.86	0.64(0.512)	0.62(0.496)

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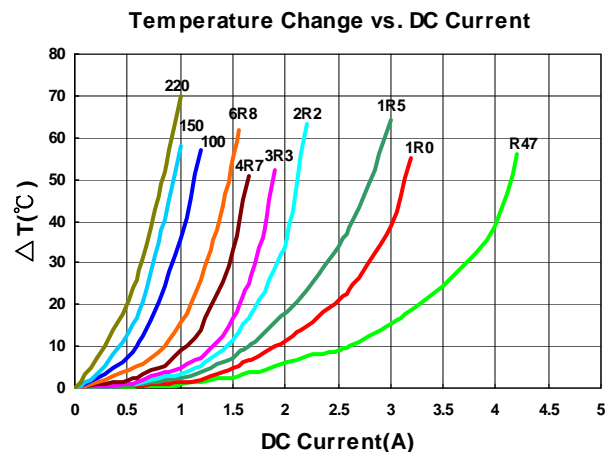
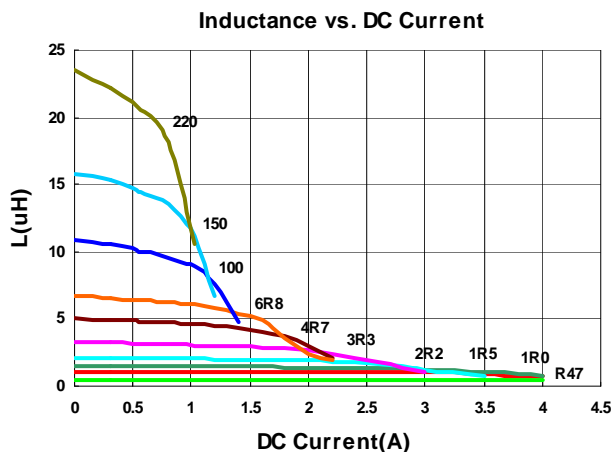


Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR303015-R47M	0.47	1	20, 30	0.036	4.7(3.760)	4.0(3.200)
LNR303015-1R0M	1.0	1	20, 30	0.054	3.4(2.720)	3.0(2.400)
LNR303015-1R5M	1.5	1	20, 30	0.063	3.0(2.400)	2.6(2.080)
LNR303015-2R2M	2.2	1	20, 30	0.090	2.3(1.840)	2.0(1.600)
LNR303015-3R3M	3.3	1	20, 30	0.125	1.9(1.520)	1.80(1.440)
LNR303015-4R7M	4.7	1	20, 30	0.170	1.58(1.264)	1.52(1.216)
LNR303015-6R8M	6.8	1	20, 30	0.235	1.34(1.072)	1.30(1.040)
LNR303015-100M	10	1	20, 30	0.360	1.06(0.848)	1.00(0.800)
LNR303015-150M	15	1	20, 30	0.550	0.90(0.720)	0.80(0.640)
LNR303015-220M	22	1	20, 30	0.770	0.76(0.608)	0.65(0.520)
LNR303015-330M	33	1	20, 30	0.930	0.65(0.580)	0.60(0.540)
LNR303015-470M	47	1	20, 30	1.500	0.52(0.460)	0.42(0.370)
LNR303015-101M	100	1	20, 30	2.700	0.36(0.320)	0.30(0.270)

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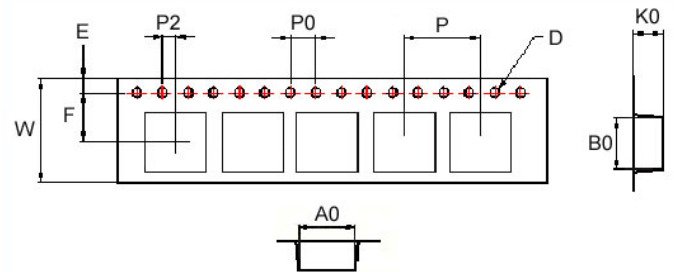
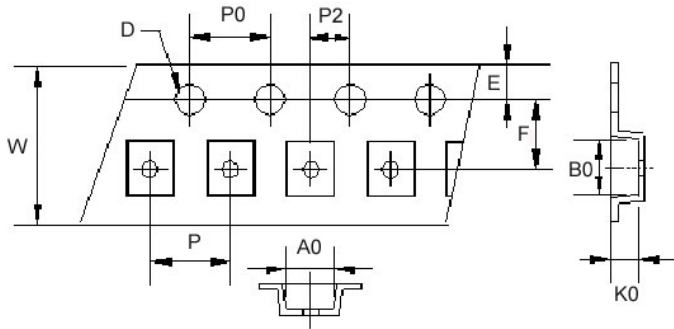
Packaging Specifications

Tape Dimensions

Tape Dimensions

Figure 1

Figure 2

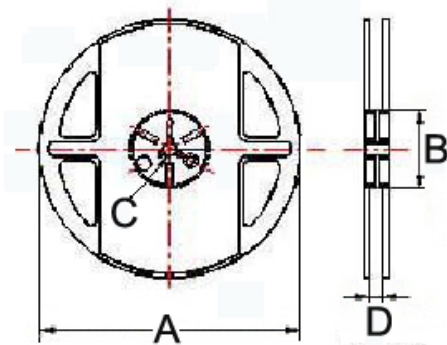
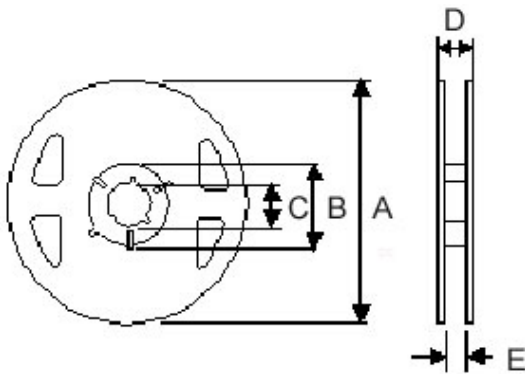


Reel Dimensions

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	
LNR201012	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
LNR251012	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
LNR251212	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
LNR303010	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
LNR303012	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
LNR303015	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