



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

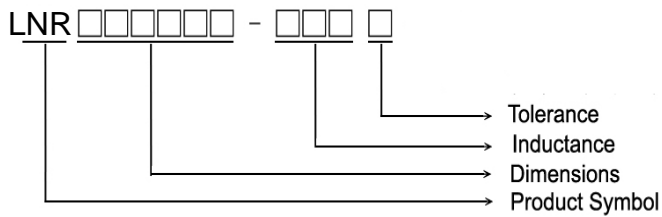
Features

- 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

Applications

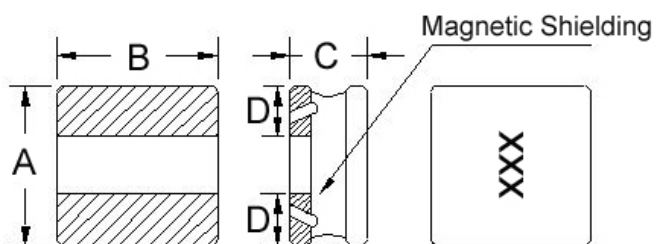
- AP Routers
- STBs
- LCD TVs, monitors and panels
- Game consoles
- DC/DC converters

Product Identification

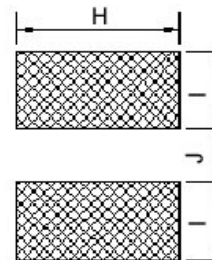


Shape and Dimensions

Figure 1

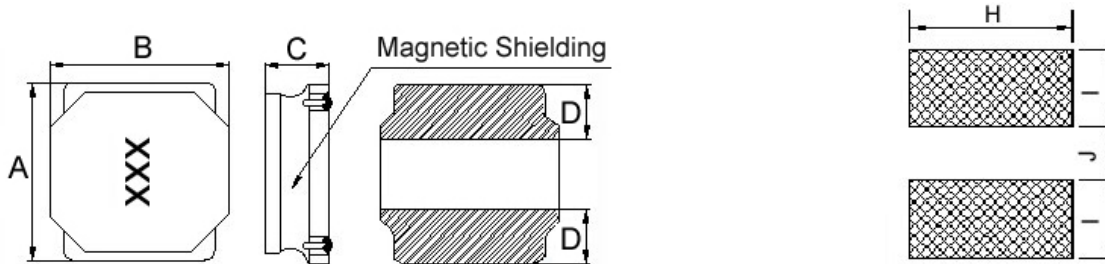


Recommended Pattern



Shape and Dimensions

Figure 2

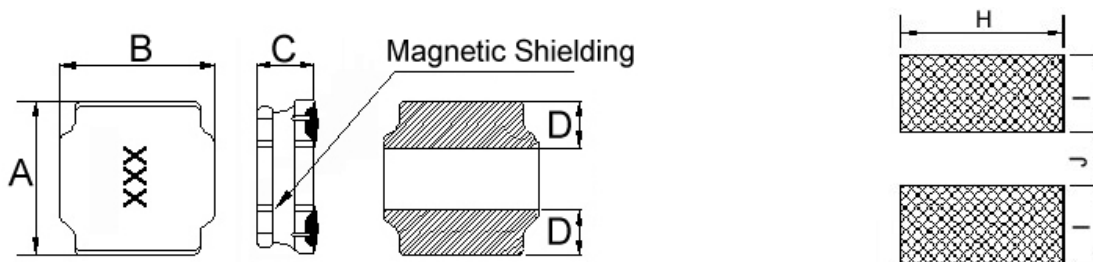


Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
LNR404018	2	4.0±0.2	4.0±0.2	1.8 ^{+0.2} _{-0.30}	1.3±0.3	3.7	1.2	1.6
LNR404026	2	4.0±0.2	4.0±0.2	2.6±0.2	1.4	3.7	1.2	1.6

Shape and Dimensions

Figure 3



Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
LNR505020	3	5.0±0.2	5.0±0.2	2.0 ^{+0.2} _{-0.30}	1.8±0.3	4.0	1.5	2.1
LNR505040	3	5.0±0.2	5.0±0.2	4.0 ^{+0.2} _{-0.30}	1.6±0.3	4.0	1.5	2.1
LNR606020	3	6.0±0.2	6.0±0.2	2.0 ^{+0.2} _{-0.30}	1.7±0.3	5.7	1.6	2.9
LNR606028	3	6.0±0.2	6.0±0.2	2.8 ^{+0.2} _{-0.30}	1.9±0.3	5.7	1.6	2.9
LNR606045	3	6.0±0.2	6.0±0.2	4.5 ^{+0.2} _{-0.30}	1.8±0.3	5.7	2.0	2.4
LNR808040	3	8.0±0.2	8.0±0.2	4.0 ^{+0.2} _{-0.30}	2.3±0.3	7.5	2.5	3.4

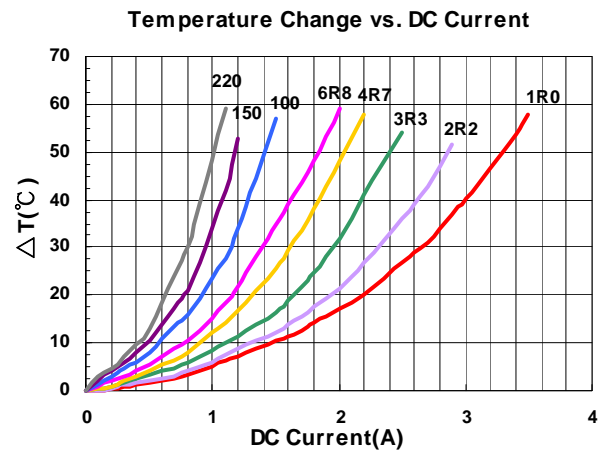
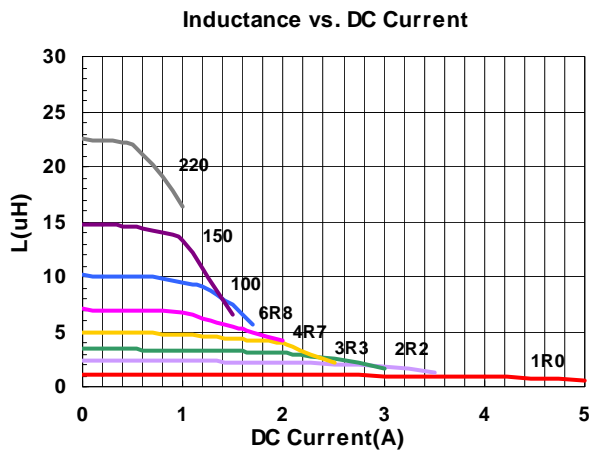
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±20%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR404018-1R0M	1.0	20, 30	100	32	4.10(3.69)	2.80(2.52)
LNR404018-1R5M	1.5	20, 30	100	40	3.30(2.97)	2.60(2.34)
LNR404018-1R8M	1.8	20, 30	100	55	2.80(2.50)	2.50(2.20)
LNR404018-2R2M	2.2	20, 30	100	60	2.80(2.52)	2.50(2.25)
LNR404018-3R3M	3.3	20, 30	100	70	2.20(1.98)	2.10(1.89)
LNR404018-3R6M	3.6	20, 30	100	75	2.10(1.89)	1.90(1.71)
LNR404018-3R9M	3.9	20, 30	100	75	2.10(1.89)	1.90(1.71)
LNR404018-4R7M	4.7	20, 30	100	90	2.00(1.80)	1.70(1.53)
LNR404018-6R8M	6.8	20, 30	100	110	1.60(1.44)	1.50(1.35)
LNR404018-100M	10	20, 30	100	170	1.40(1.26)	1.20(1.08)
LNR404018-150M	15	20, 30	100	250	1.00(0.90)	1.00(0.90)
LNR404018-220M	22	20, 30	100	350	0.90(0.81)	0.85(0.76)
LNR404018-330M	33	20, 30	100	530	0.80(0.72)	0.70(0.63)
LNR404018-470M	47	20, 30	100	720	0.70(0.63)	0.56(0.50)
LNR404018-680M	68	20, 30	100	1000	0.56(0.50)	0.45(0.40)
LNR404018-101M	100	20, 30	100	1500	0.46(0.41)	0.38(0.34)
LNR404018-151M	150	20, 30	100	2500	0.35(0.31)	0.30(0.27)
LNR404018-221M	220	20, 30	100	4000	0.28(0.25)	0.23(0.20)

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 HP4284A+Agilent HP42841A, 100kHz 1V
 - RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 - Isat & I rms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



Electrical Characteristics

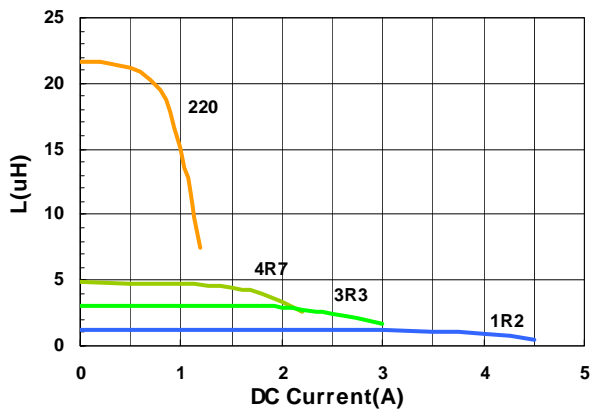
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR404026-1R2M	1.2	20, 30	100	30	3.50(3.15)	3.30(2.97)
LNR404026-3R3M	3.3	20, 30	100	45	2.50(2.25)	2.50(2.25)
LNR404026-4R7M	4.7	20, 30	100	60	1.80(1.62)	1.80(1.62)
LNR404026-220M	22	20, 30	100	230	0.86(0.77)	1.00(0.90)

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

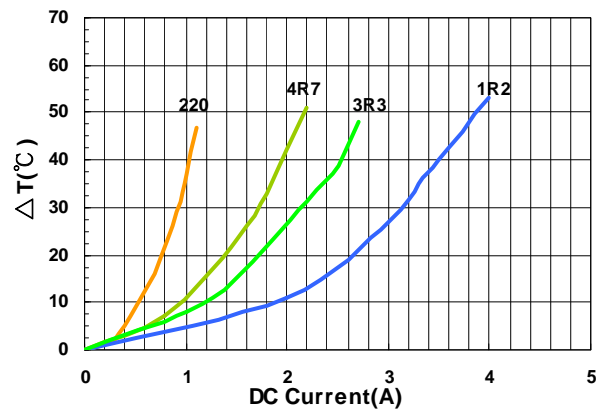
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : Agilent HP4284A+Agilent HP42841A, 100kHz 1V
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer

Inductance vs. DC Current



Temperature Change vs. DC Current



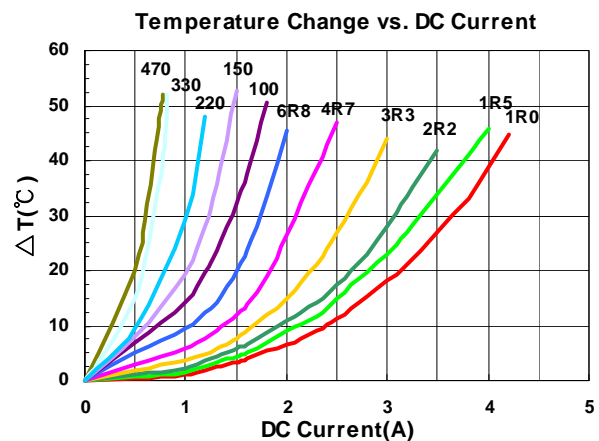
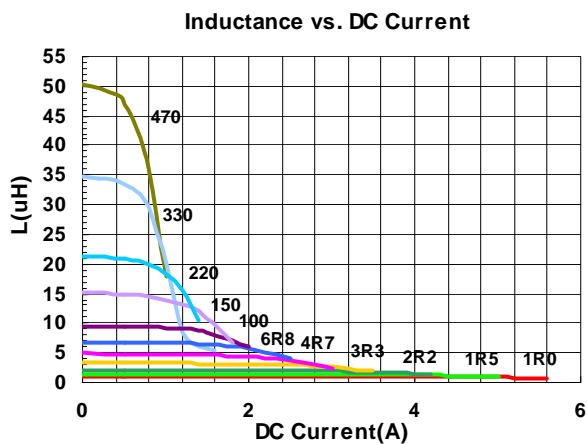
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±20%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
LNR505020-1R0M	1.0	30	100	21	5.1(4.59)	4.0(3.60)	
LNR505020-1R2M	1.2	30	100	21	4.8(4.32)	3.8(3.42)	
LNR505020-1R5M	1.5	20, 30	100	26	4.2(3.78)	3.5(3.15)	
LNR505020-2R2M	2.2	20, 30	100	35	3.4(3.06)	3.2(2.88)	
LNR505020-2R7M	2.7	20, 30	100	38	3.05(2.7)	2.9(2.60)	
LNR505020-3R3M	3.3	20, 30	100	48	3.0(2.70)	2.8(2.52)	
LNR505020-4R7M	4.7	20, 30	100	60	2.2(1.98)	2.2(1.98)	
LNR505020-5R6M	5.6	20, 30	100	82	2.05(1.84)	2.0(1.80)	
LNR505020-6R8M	6.8	20, 30	100	90	2.0(1.80)	1.8(1.62)	
LNR505020-100M	10	20, 30	100	120	1.6(1.44)	1.6(1.44)	
LNR505020-150M	15	20, 30	100	190	1.3(1.17)	1.2(1.08)	
LNR505020-220M	22	20, 30	100	260	1.0(0.90)	1.0(0.90)	
LNR505020-330M	33	20, 30	100	460	0.8(0.72)	0.75(0.67)	
LNR505020-470M	47	20, 30	100	580	0.65(0.58)	0.65(0.58)	

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 HP4284A+Agilent HP42841A, 100kHz 1V
 - RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 - Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



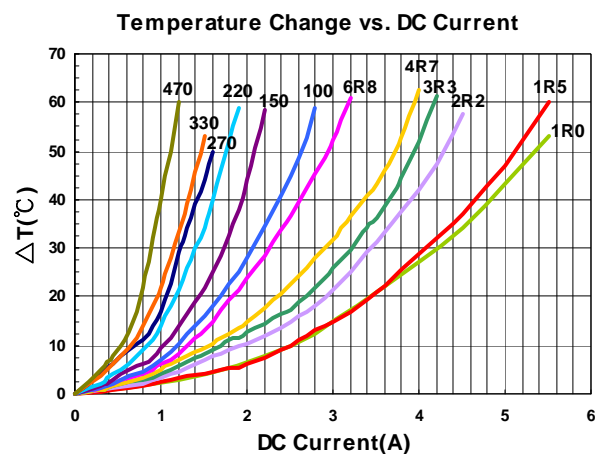
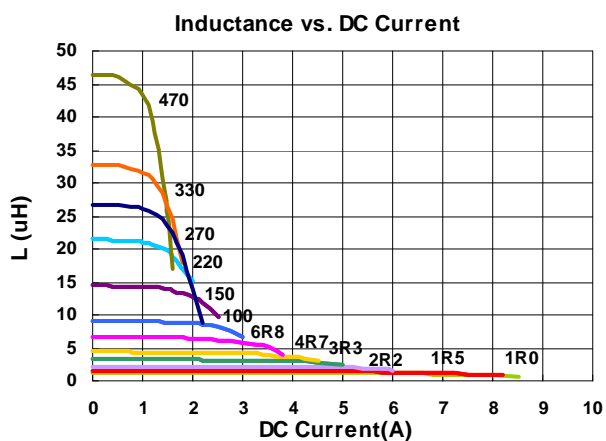
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR505040-1R0M	1.0	30	100	14	7.5(6.75)	4.6(4.14)
LNR505040-1R2M	1.2	20, 30	100	15	7.4(6.66)	4.5(4.05)
LNR505040-1R5M	1.5	20, 30	100	16	7.1(6.39)	4.4(3.96)
LNR505040-2R2M	2.2	20, 30	100	21	5.7(5.13)	3.7(3.33)
LNR505040-3R0M	2.2	20, 30	100	26	4.8(4.32)	3.5(3.15)
LNR505040-3R3M	3.3	20, 30	100	26	4.8(4.32)	3.5(3.15)
LNR505040-3R6M	3.6	20, 30	100	31	4.2(3.70)	3.3(2.90)
LNR505040-4R7M	4.7	20, 30	100	32	4.2(3.78)	3.2(2.88)
LNR505040-6R8M	6.8	20, 30	100	50	3.3(2.97)	2.4(2.16)
LNR505040-100M	10	20, 30	100	60	2.8(2.52)	2.2(1.98)
LNR505040-150M	15	20, 30	100	90	2.3(2.07)	1.8(1.62)
LNR505040-220M	22	20, 30	100	135	1.8(1.62)	1.4(1.26)
LNR505040-270M	27	20, 30	100	180	1.6(1.44)	1.2(1.08)
LNR505040-330M	33	20, 30	100	190	1.5(1.35)	1.1(0.99)
LNR505040-470M	47	20, 30	100	310	1.2(1.08)	0.9(0.81)
LNR505040-680M	68	20, 30	100	540	1.0(0.90)	0.78(0.7)
LNR505040-101M	100	20, 30	100	800	0.7(0.60)	0.6(0.50)

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 HP4284A+Agilent HP42841A, 100kHz 1V
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



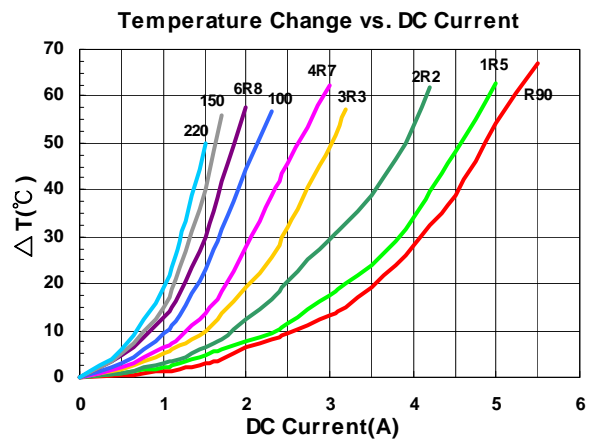
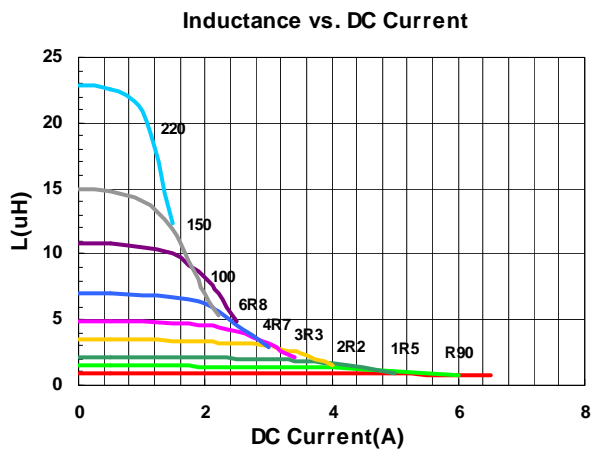
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR606020-R50M	0.5	30	100	13	8.0(7.20)	5.3(4.77)
LNR606020-R90M	0.9	30	100	18	6.3(5.67)	4.2(3.78)
LNR606020-1R0M	1.0	30	100	19	6.2(5.58)	4.1(3.69)
LNR606020-1R5M	1.5	20, 30	100	26	5.0(4.50)	3.6(3.24)
LNR606020-2R2M	2.2	20, 30	100	34	4.2(3.78)	3.2(2.88)
LNR606020-3R3M	3.3	20, 30	100	40	3.2(2.88)	2.7(2.43)
LNR606020-4R7M	4.7	20, 30	100	58	2.5(2.25)	2.2(1.98)
LNR606020-6R8M	6.8	20, 30	100	85	2.2(1.98)	1.8(1.62)
LNR606020-100M	10	20, 30	100	125	2.0(1.80)	1.6(1.44)
LNR606020-150M	15	20, 30	100	190	1.3(1.17)	1.3(1.17)
LNR606020-220M	22	20, 30	100	260	1.1(0.99)	1.1(0.99)

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 HP4284A+Agilent HP42841A, 100kHz 1V
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



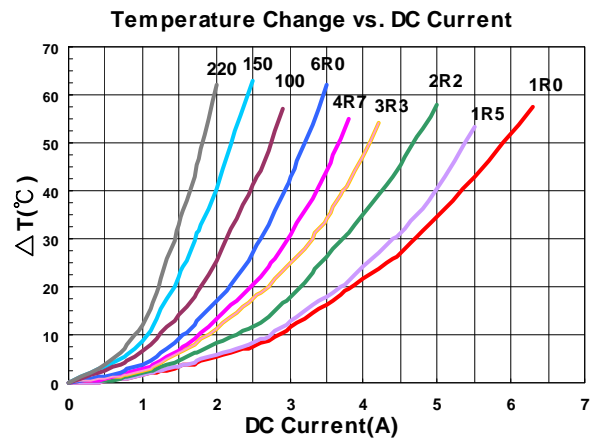
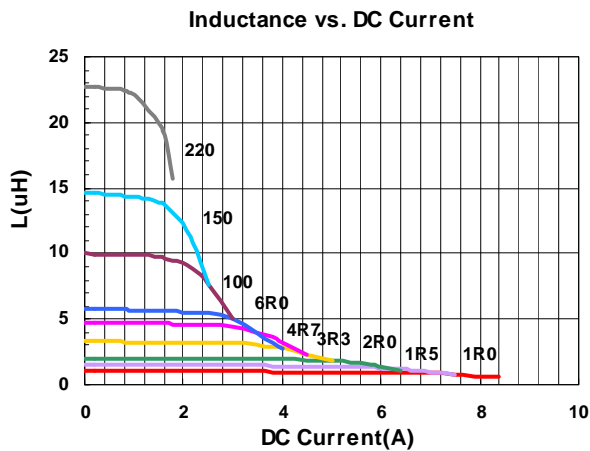
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR606028-1R0M	1.0	30	100	13	7.6(6.84)	5.2(4.68)
LNR606028-1R5M	1.5	30	100	16	6.3(5.67)	4.8(4.32)
LNR606028-2R2M	2.2	20, 30	100	20	5.4(4.86)	4.0(3.60)
LNR606028-2R7M	2.7	20, 30	100	26	4.9(4.41)	3.7(3.33)
LNR606028-3R3M	3.3	20, 30	100	28	4.3(3.87)	3.5(3.15)
LNR606028-4R7M	4.7	20, 30	100	38	3.7(3.33)	3.2(2.88)
LNR606028-6R0M	6.0	20, 30	100	45	3.3(2.97)	2.8(2.52)
LNR606028-6R8M	6.8	20, 30	100	50	3.1(2.79)	2.7(2.43)
LNR606028-100M	10	20, 30	100	65	2.5(2.25)	2.3(2.07)
LNR606028-150M	15	20, 30	100	95	2.0(1.80)	1.8(1.62)
LNR606028-220M	22	20, 30	100	135	1.6(1.44)	1.5(1.35)
LNR606028-330M	33	20, 30	100	220	1.3(1.17)	1.4(1.26)
LNR606028-470M	47	20, 30	100	320	1.1(0.99)	1.0(0.90)
LNR606028-680M	68	20, 30	100	420	0.98(0.88)	0.9(0.81)
LNR606028-101M	100	20, 30	100	600	0.82(0.73)	0.8(0.72)

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 HP4284A+Agilent HP42841A, 100kHz 1V
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer





Electrical Characteristics

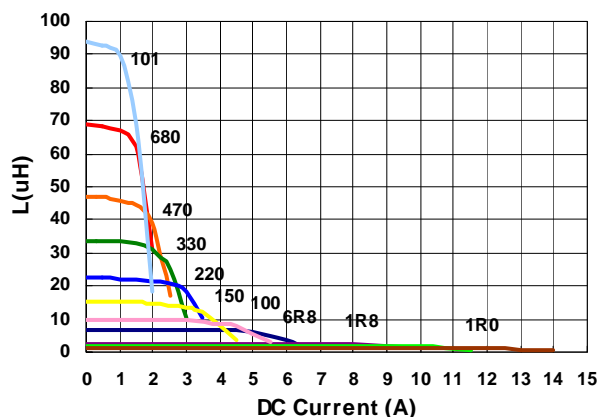
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR606045-1R0M	1.0	20, 30	100	12	12.2(10.98)	6.5(5.85)
LNR606045-1R2M	1.2	20, 30	100	13	10.6(9.50)	5.9(5.30)
LNR606045-1R5M	1.5	20, 30	100	15	10.4(9.36)	5.9(5.31)
LNR606045-1R8M	1.8	20, 30	100	17	9.6(8.64)	5.6(5.04)
LNR606045-2R2M	2.2	20, 30	100	18.4	8.8(7.92)	5.1(4.59)
LNR606045-2R3M	2.3	20, 30	100	19	8.8(7.92)	5.0(4.50)
LNR606045-3R0M	3.0	20, 30	100	22	7.8(7.02)	4.4(3.96)
LNR606045-3R3M	3.3	20, 30	100	24	7.5(6.75)	4.3(3.87)
LNR606045-3R6M	3.6	20, 30	100	24	7.5(6.75)	4.3(3.87)
LNR606045-3R9M	3.9	20, 30	100	26	7.0(6.30)	4.0(3.60)
LNR606045-4R5M	4.5	20, 30	100	31	6.7(6.03)	3.9(3.51)
LNR606045-4R7M	4.7	20, 30	100	31	6.7(6.03)	3.9(3.51)
LNR606045-5R1M	5.1	20, 30	100	33	6.0(5.40)	3.5(3.15)
LNR606045-5R6M	5.6	20, 30	100	40	5.5(4.95)	3.3(2.97)
LNR606045-6R3M	6.3	20, 30	100	40	5.5(4.95)	3.3(2.97)
LNR606045-6R8M	6.8	20, 30	100	43	5.3(4.77)	3.2(2.88)
LNR606045-8R2M	8.2	20, 30	100	53	4.6(4.10)	2.9(2.60)
LNR606045-100M	10	20, 30	100	57	4.5(4.05)	2.7(2.43)
LNR606045-150M	15	20, 30	100	80	3.4(3.06)	2.2(1.98)
LNR606045-180M	18	20, 30	100	100	3.1(2.79)	1.8(1.62)
LNR606045-220M	22	20, 30	100	125	3.0(2.70)	1.9(1.71)
LNR606045-270M	27	20, 30	100	160	2.5(2.25)	1.3(1.17)
LNR606045-330M	33	20, 30	100	165	2.3(2.07)	1.4(1.26)
LNR606045-470M	47	20, 30	100	245	1.9(1.71)	1.2(1.08)
LNR606045-560M	56	20, 30	100	310	1.7(1.50)	1.1(0.99)
LNR606045-680M	68	20, 30	100	330	1.6(1.44)	1.0(0.90)
LNR606045-101M	100	20, 30	100	500	1.3(1.17)	0.8(0.72)
LNR606045-221M	220	20, 30	100	1300	0.82(0.73)	0.38(0.34)
LNR606045-331M	330	20, 30	100	1800	0.7(0.63)	0.35(0.31)
LNR606045-102M	1000	20, 30	100	6000	0.4(0.36)	0.22(0.19)

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

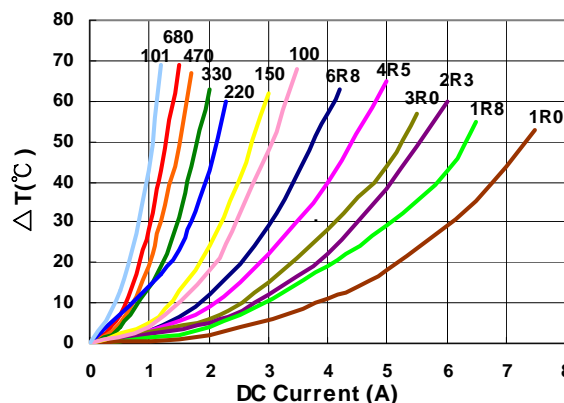
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Iirms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : Agilent HP4284A+Agilent HP42841A, 100kHz 1V
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & Iirms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer

Inductance vs. DC Current



Temperature Change vs. DC Current



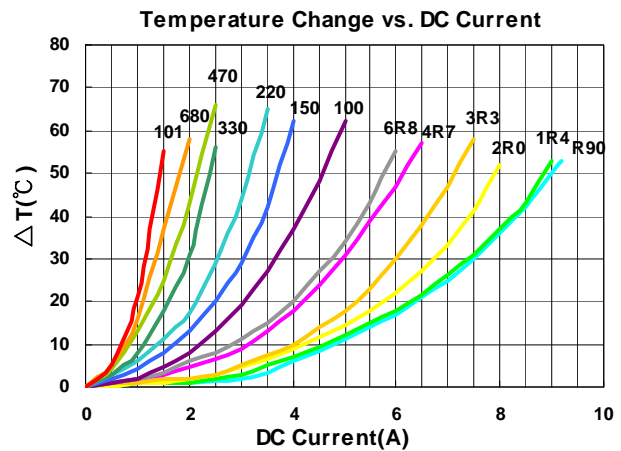
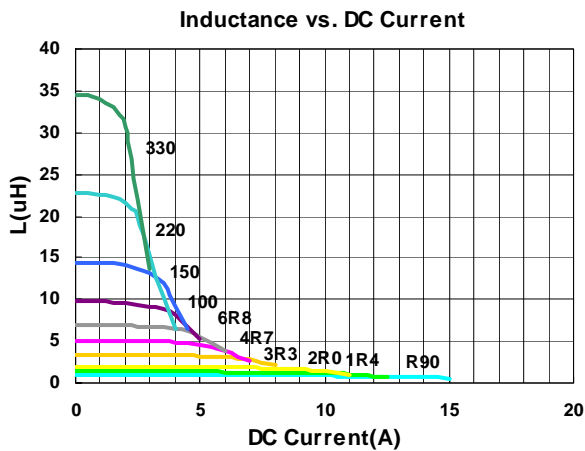
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)
LNR808040-1R0T	1.0	30	100	7.5	13.0(11.70)	7.95(7.15)
LNR808040-2R2M	2.2	20, 30	100	11.5	9.2(8.28)	7.2(6.48)
LNR808040-3R3M	3.3	20, 30	100	15	7.5(6.75)	6.0(5.40)
LNR808040-4R7M	4.7	20, 30	100	18	6.0(5.40)	5.5(4.95)
LNR808040-6R8M	6.8	20, 30	100	25	5.4(4.86)	5.1(4.59)
LNR808040-100M	10	20, 30	100	38	4.3(3.87)	3.8(3.42)
LNR808040-220M	22	20, 30	100	80	2.8(2.52)	2.6(2.34)
LNR808040-330M	33	20, 30	100	110	2.3(2.07)	2.0(1.80)
LNR808040-470M	47	20, 30	100	160	1.9(1.71)	1.75(1.57)

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

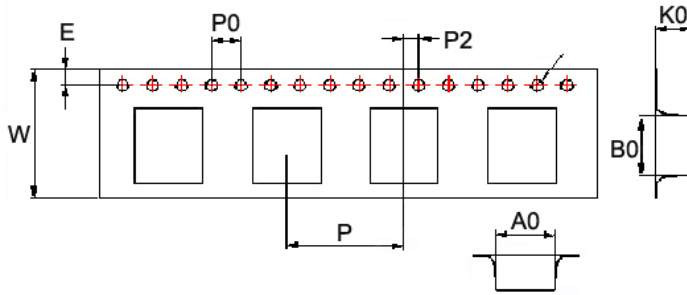
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : Agilent HP4284A+Agilent HP42841A, 100kHz 1V
 RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 Isat & I rms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer

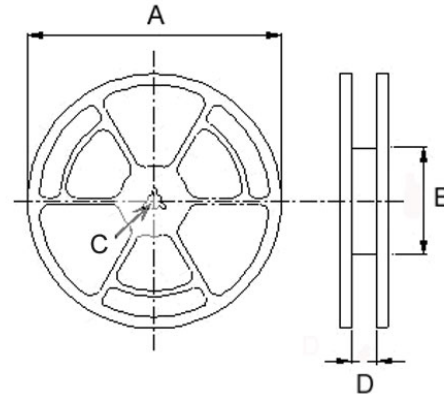


Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions										Reel Dimensions				Quantity PCS / Reel
	A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	
LNR404012	4.25	4.25	1.30	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	1000
LNR404018	4.25	4.25	2.10	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	800
LNR404026	4.25	4.25	3.00	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	500
LNR505020	5.25	5.25	2.20	1.55	1.75	5.5	12	8.1	4	2	330	100	13	13.4	2000
LNR505040	5.20	5.20	4.20	1.55	1.75	5.5	12	8.1	4	2	330	100	13	13.4	1500
LNR606020	6.25	6.25	2.20	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	2000
LNR606028	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1500
LNR606045	6.25	6.25	4.65	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1000
LNR808040	8.25	8.25	4.15	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1000