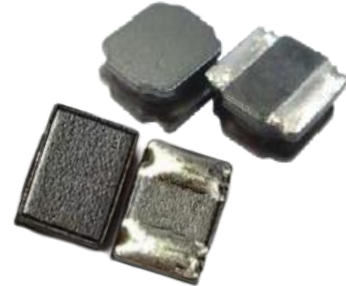




Sealed Power Inductors - HNR Series

FEATURES

- * RoHS Compliant
- * Highly accurate Dimensions
- * Highly reliable in environments of sudden Temperature change and humidity
- * Shielded & power inductors



特性

- * 无铅
- * 高精高尺寸
- * 突变的温度与温度环境中具有高可靠性
- * 磁屏蔽功率型电感

产品标识 Product Identification

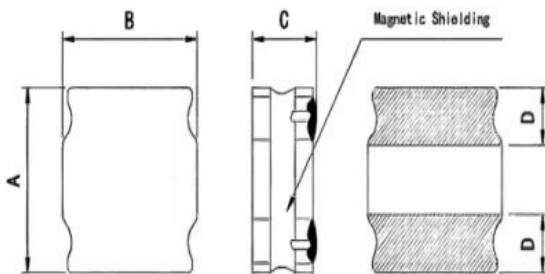
HNR □□□□ - □□□ □

(1) (2) (3) (4)

- (1) HNR 向华料号 Part Number
- (2) 尺寸 Dimensions
- (3) 电感量 Inductance
- (4) 电感量公差 Inductance Tolerance

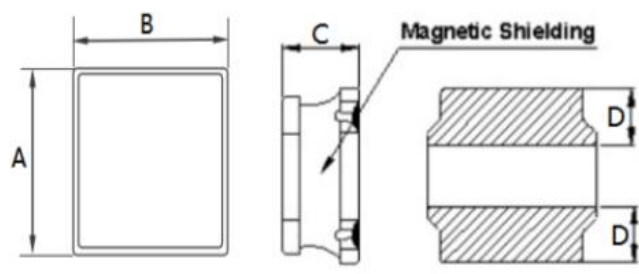
HNR201610

Shape and Dimensions



HNR252010~252012

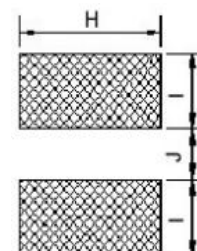
Shape and Dimensions



Recommended Pattern

Dimensions in mm

TYPE	A	B	C	D Typ.	H Typ.	I Typ.	J Typ.
HNR201610-CA	2.0±0.3	1.6±0.3	1.05max	0.6	1.7	0.7	0.7
HNR252010-CA	2.5±0.3	2.0±0.3	1.02max	0.8	2.0	0.85	0.8
HNR252012-CA	2.5±0.3	2.0±0.3	1.2±0.05	0.8	2.0	0.85	0.8

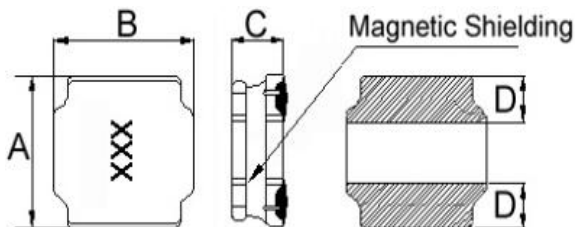




Sealed Power Inductors - HNR Series

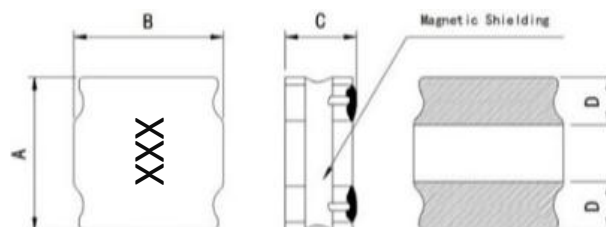
HNR3010/3012

Shape and Dimensions



HNR3015

Shape and Dimensions



Dimensions in mm

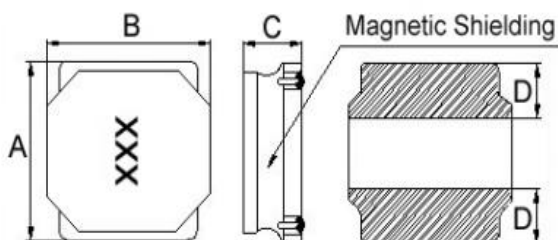
TYPE	A	B	C	D Typ.	H Typ.	I Typ.	J Typ.
HNR3010	3.0±0.2	3.0±0.2	1.05max	0.9	2.8	1.0	1.3
HNR3012	3.0±0.2	3.0±0.2	1.25max	0.9	2.7	0.8	1.5
HNR3015	3.0±0.2	3.0±0.2	1.5 ^{+0.2} _{-0.3}	0.9	2.5	1.0	1.0

Recommended Pattern



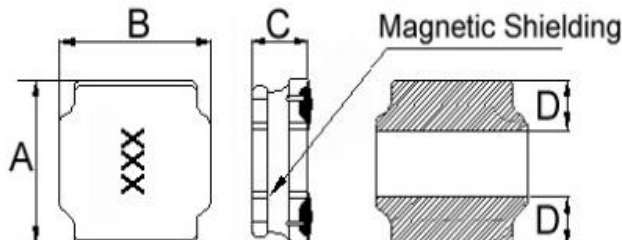
HNR4012/4015/4018/4026

Shape and Dimensions



HNR4020/4030/5020/5040/6020/6028/6045/8040

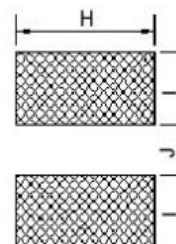
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D Typ.	H Typ.	I Typ.	J Typ.
HNR4012	4.0±0.2	4.0±0.2	1.2 ^{+0.2} _{-0.3}	1.3	3.7	1.2	1.6
HNR4015	4.0±0.2	4.0±0.2	1.5 ^{+0.2} _{-0.3}	1.3	3.7	1.2	1.6
HNR4018	4.0±0.2	4.0±0.2	1.8 ^{+0.2} _{-0.3}	1.3	3.7	1.2	1.6
HNR4020	4.0±0.2	4.0±0.2	2.0 ^{+0.2} _{-0.3}	1.3	3.7	1.2	1.6
HNR4026	4.0±0.2	4.0±0.2	2.6 ^{+0.2} _{-0.3}	1.4	3.7	1.2	1.6
HNR4030	4.0±0.2	4.0±0.2	3.0 ^{+0.2} _{-0.3}	1.4	3.7	1.2	1.6
HNR5020	5.0±0.2	5.0±0.2	2.0 ^{+0.2} _{-0.3}	1.8	4.0	1.5	2.1
HNR5040	5.0±0.2	5.0±0.2	4.0 ^{+0.2} _{-0.3}	1.6	4.0	1.5	2.1
HNR6020	6.0±0.2	6.0±0.2	2.0 ^{+0.2} _{-0.3}	1.7	5.7	1.6	2.9
HNR6028	6.0±0.2	6.0±0.2	2.8 ^{+0.2} _{-0.3}	1.9	5.7	1.6	2.9
HNR6045	6.0±0.2	6.0±0.2	4.5 ^{+0.2} _{-0.3}	1.8	5.7	2.0	2.4
HNR8040	8.0±0.2	8.0±0.2	4.0 ^{+0.2} _{-0.3}	23	7.5	2.5	3.4

Recommended Pattern





Sealed Power Inductors - HNR201610 Series

HNR201610 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HNR201610-R22□	0.22	30	100KHz,1V	33(40)	4.10(3.70)	3.10(2.80)
HNR201610-R24□	0.24	30	100KHz,1V	33(40)	4.10(3.70)	3.10(2.80)
HNR201610-R33□	0.33	30	100KHz,1V	43(48)	3.70(3.00)	2.90(2.40)
HNR201610-R47□	0.47	30	100KHz,1V	52(62)	2.85(2.30)	2.60(2.30)
HNR201610-R68□	0.68	30	100KHz,1V	76(68)	2.45(1.95)	2.20(2.00)
HNR201610-1R0□	1.0	30	100KHz,1V	104(114)	1.85(1.65)	1.60(1.45)
HNR201610-1R5□	1.5	30	100KHz,1V	164(174)	1.65(1.35)	1.20(1.10)
HNR201610-2R2□	2.2	20,30	100KHz,1V	232(265)	1.45(1.20)	1.15(1.05)
HNR201610-3R3□	3.3	20,30	100KHz,1V	328(345)	1.20(1.00)	0.95(0.85)
HNR201610-4R7□	4.7	20,30	100KHz,1V	430(480)	0.90(0.75)	0.80(0.70)
HNR201610-6R8□	6.8	20,30	100KHz,1V	715(800)	0.85(0.70)	0.60(0.55)
HNR201610-8R2□	8.2	20,30	100KHz,1V	818(940)	0.78(0.68)	0.60(0.53)
HNR201610-100□	10	20,30	100KHz,1V	930(1000)	0.70(0.65)	0.60(0.50)

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

- Operating temperature range—55℃~125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ temperature rise from 25℃ ambient with current



Sealed Power Inductors - HNR252010 Series

HNR252010 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HNR252010-R24□	0.24	30	100KHz,1V	26(34)	4.40(3.60)	3.00(2.75)
HNR252010-R33□	0.33	30	100KHz,1V	33(40)	4.30(3.60)	2.70(2.45)
HNR252010-R47□	0.47	30	100KHz,1V	35(44)	3.20(2.80)	2.60(2.40)
HNR252010-R68□	0.68	30	100KHz,1V	51(62)	3.10(2.75)	2.35(2.10)
HNR252010-1R0□	1.0	30	100KHz,1V	66(80)	2.50(2.05)	2.05(1.85)
HNR252010-1R5□	1.5	30	100KHz,1V	85(108)	2.05(1.70)	1.70(1.55)
HNR252010-2R2□	2.2	20,30	100KHz,1V	132(150)	1.75(1.50)	1.50(1.35)
HNR252010-3R3□	3.3	20,30	100KHz,1V	173(228)	1.35(1.10)	1.20(1.05)
HNR252010-4R7□	4.7	20,30	100KHz,1V	248(330)	1.15(1.00)	1.00(0.90)
HNR252010-5R6□	5.6	20,30	100KHz,1V	310(480)	1.05(0.90)	0.90(0.80)
HNR252010-6R8□	6.8	20,30	100KHz,1V	438(480)	0.95(0.80)	0.80(0.72)
HNR252010-8R2□	8.2	20,30	100KHz,1V	440(572)	0.85(0.73)	0.78(0.69)
HNR252010-100□	10	20,30	100KHz,1V	500(600)	0.75(0.65)	0.75(0.65)
HNR252010-120□	12	20,30	100KHz,1V	700(850)	0.62(0.58)	0.62(0.58)
HNR252010-150□	15	20,30	100KHz,1V	710(1050)	0.55(0.50)	0.50(0.45)

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



Sealed Power Inductors - HNR252012 Series

HNR252012 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HNR252012-R24□	0.24	30	100KHz,1V	19(23)	4.80(4.10)	4.50(4.10)
HNR252012-R33□	0.33	30	100KHz,1V	26(31)	4.70(4.00)	3.70(3.35)
HNR252012-R47□	0.47	30	100KHz,1V	31(36)	4.50(3.80)	3.30(3.00)
HNR252012-R68□	0.68	30	100KHz,1V	38(47)	3.30(3.00)	2.50(2.30)
HNR252012-1R0□	1.0	30	100KHz,1V	50(60)	2.50(2.25)	2.60(2.30)
HNR252012-1R2□	1.2	30	100KHz,1V	65(78)	2.50(2.20)	2.20(2.00)
HNR252012-1R5□	1.5	30	100KHz,1V	75(90)	2.35(2.00)	2.00(1.80)
HNR252012-1R8□	1.8	30	100KHz,1V	93(108)	2.20(1.95)	1.90(1.75)
HNR252012-2R2□	2.2	20,30	100KHz,1V	93(108)	1.90(1.75)	1.90(1.75)
HNR252012-2R7□	2.7	20,30	100KHz,1V	130(156)	1.60(1.30)	1.50(1.40)
HNR252012-3R3□	3.3	20,30	100KHz,1V	130(156)	1.35(1.20)	1.50(1.40)
HNR252012-4R7□	4.7	20,30	100KHz,1V	190(228)	1.20(1.10)	1.20(1.10)
HNR252012-5R6□	5.6	20,30	100KHz,1V	255(330)	1.10(1.00)	1.15(1.00)
HNR252012-6R8□	6.8	20,30	100KHz,1V	300(360)	1.10(0.90)	1.05(0.95)
HNR252012-100□	10	20,30	100KHz,1V	435(522)	0.85(0.70)	0.86(0.78)
HNR252012-150□	15	20,30	100KHz,1V	700(1000)	0.70(0.60)	0.60(0.50)
HNR252012-220□	22	20,30	100KHz,1V	1000(1290)	0.55(0.45)	0.55(0.48)

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



Sealed Power Inductors - HNR3010 Series

HNR3010 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)	
HNR3010-1R0□	1.0	30	100KHz,1V	72(85)	2.10(1.40)	1.80(1.45)	1R0
HNR3010-1R5□	1.5	30	100KHz,1V	97(104)	1.70(1.27)	1.60(1.30)	1R5
HNR3010-2R2□	2.2	20,30	100KHz,1V	111(143)	1.50(1.15)	1.40(1.10)	2R2
HNR3010-3R3□	3.3	20,30	100KHz,1V	167(189)	1.20(0.97)	1.20(0.97)	3R3
HNR3010-4R7□	4.7	20,30	100KHz,1V	216(293)	1.05(0.75)	1.10(0.77)	4R7
HNR3010-6R8□	6.8	20,30	100KHz,1V	338(397)	0.75(0.60)	0.75(0.65)	6R8
HNR3010-100□	10	20,30	100KHz,1V	445(520)	0.75(0.55)	0.70(0.58)	100
HNR3010-150□	15	20,30	100KHz,1V	718(793)	0.57(0.42)	0.70(0.58)	150
HNR3010-220□	22	20,30	100KHz,1V	848(1020)	0.43(0.35)	0.52(0.40)	220
HNR3010-330□	33	20,30	100KHz,1V	1859(2015)	0.42(0.30)	0.50(0.30)	330
HNR3010-470□	47	20,30	100KHz,1V	2010(2535)	0.35(0.26)	0.35(0.26)	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.
- Irms for a 40°C temperature rise from 25°C ambient with current



Sealed Power Inductors - HNR3012 Series

HNR3012 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)	
HNR3012-1R0□	1.0	30	100KHz,1V	43(52)	2.80(1.87)	2.70(2.20)	1R0
HNR3012-1R5□	1.5	30	100KHz,1V	52(59)	1.90(1.62)	2.00(1.80)	1R5
HNR3012-2R2□	2.2	20,30	100KHz,1V	88(98)	1.60(1.20)	1.70(1.55)	2R2
HNR3012-3R3□	3.3	20,30	100KHz,1V	118(130)	1.20(1.05)	1.45(1.36)	3R3
HNR3012-4R7□	4.7	20,30	100KHz,1V	135(156)	1.00(0.90)	1.30(1.24)	4R7
HNR3012-6R8□	6.8	20,30	100KHz,1V	218(247)	0.90(0.75)	1.10(0.98)	6R8
HNR3012-100□	10	20,30	100KHz,1V	314(345)	0.75(0.60)	0.85(0.80)	100
HNR3012-150□	15	20,30	100KHz,1V	425(468)	0.62(0.45)	0.75(0.70)	150
HNR3012-220□	22	20,30	100KHz,1V	726(839)	0.52(0.42)	0.59(0.53)	220
HNR3012-330□	33	20,30	100KHz,1V	886(1138)	0.46(0.36)	0.50(0.46)	330
HNR3012-470□	47	20,30	100KHz,1V	1761(1885)	0.35(0.27)	0.40(0.35)	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.
- Irms for a 40°C temperature rise from 25°C ambient with current



Sealed Power Inductors - HNR3015 Series

HNR3015 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR3015-1R0□	1.0	30	100KHz,1V	39	2.5(2.2)	1.8(1.5)	1R0
HNR3015-1R2□	1.2	30	100KHz,1V	52	2.1(1.9)	1.78(1.4)	1R2
HNR3015-1R5□	1.5	30	100KHz,1V	65	1.82(1.62)	1.75(1.5)	1R5
HNR3015-1R8□	1.8	30	100KHz,1V	65	1.8(1.6)	1.5(1.2)	1R8
HNR3015-2R2□	2.2	20,30	100KHz,1V	78	1.78(1.56)	1.3(1.15)	2R2
HNR3015-3R3□	3.3	20,30	100KHz,1V	104	1.35(1.28)	1.17(0.9)	3R3
HNR3015-4R7□	4.7	20,30	100KHz,1V	162.5	1.35(1.2)	1.0(0.85)	4R7
HNR3015-5R1□	5.1	20,30	100KHz,1V	172.9	1.3(1.2)	0.78(0.7)	5R1
HNR3015-6R8□	6.8	20,30	100KHz,1V	260	1.1(0.85)	0.75(0.65)	6R8
HNR3015-100□	10	20,30	100KHz,1V	325	0.92(0.55)	0.59(0.45)	100
HNR3015-120□	12	20,30	100KHz,1V	416	0.9(0.81)	0.58(0.45)	120
HNR3015-180□	18	20,30	100KHz,1V	559	0.65(0.58)	0.46(0.36)	180
HNR3015-220□	22	20,30	100KHz,1V	598	0.55(0.48)	0.44(0.33)	220
HNR3015-330□	33	20,30	100KHz,1V	1066	0.52(0.46)	0.34(0.28)	330
HNR3015-390□	39	20,30	100KHz,1V	1293.5	0.45(0.4)	0.35(0.26)	390
HNR3015-470□	47	20,30	100KHz,1V	1625	0.36(0.32)	0.27(0.22)	470
HNR3015-560□	56	20,30	100KHz,1V	1664	0.29(0.26)	0.27(0.2)	560
HNR3015-680□	68	20,30	100KHz,1V	3510	0.23(0.2)	0.19(0.17)	680
HNR3015-101□	100	20,30	100KHz,1V	4043	0.18(0.16)	0.15(0.13)	101

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



Sealed Power Inductors - HNR4012 Series

HNR4012 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR4012-1R0□	1.0	20,30	100KHz,1V	62.4	2.50(2.25)	1.70(1.53)	1R0
HNR4012-1R5□	1.5	20,30	100KHz,1V	75.4	2.10(1.89)	1.60(1.44)	1R5
HNR4012-2R2□	2.2	20,30	100KHz,1V	84.5	1.70(1.53)	1.50(1.35)	2R2
HNR4012-3R3□	3.3	20,30	100KHz,1V	117	1.30(1.17)	1.40(1.26)	3R3
HNR4012-4R7□	4.7	20,30	100KHz,1V	143	1.10(0.99)	1.20(1.08)	4R7
HNR4012-6R8□	6.8	20,30	100KHz,1V	175.5	0.90(0.81)	1.05(0.94)	6R8
HNR4012-100□	10	20,30	100KHz,1V	247	0.78(0.70)	0.90(0.81)	100
HNR4012-150□	15	20,30	100KHz,1V	325	0.65(0.58)	0.85(0.76)	150
HNR4012-220□	22	20,30	100KHz,1V	520	0.52(0.46)	0.75(0.67)	220
HNR4012-330□	33	20,30	100KHz,1V	780	0.44(0.39)	0.70(0.63)	330
HNR4012-470□	47	20,30	100KHz,1V	1209	0.35(0.31)	0.50(0.45)	470

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

- Operating temperature range—55℃~125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ temperature rise from 25℃ ambient with current



Sealed Power Inductors - HNR4015 Series

HNR4015 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR4015-R47□	0.47	20,30	100KHz,1V	24.7	4.00(3.60)	4.20(3.78)	R47
HNR4015-1R5□	1.5	20,30	100KHz,1V	53.3	3.00(2.70)	3.20(2.88)	1R5
HNR4015-2R2□	2.2	20,30	100KHz,1V	70.2	2.30(2.07)	2.60(2.34)	2R2
HNR4015-4R7□	4.7	20,30	100KHz,1V	130	1.60(1.44)	1.80(1.62)	4R7
HNR4015-6R8□	6.8	20,30	100KHz,1V	179.4	1.40(1.26)	1.60(1.44)	6R8
HNR4015-100□	10	20,30	100KHz,1V	260	1.00(0.90)	1.20(1.08)	100
HNR4015-150□	15	20,30	100KHz,1V	390	0.92(0.82)	1.05(0.94)	150
HNR4015-220□	22	20,30	100KHz,1V	520	0.72(0.64)	0.85(0.76)	220

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



Sealed Power Inductors - HNR4018 Series

HNR4018 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR4018-1R0□	1.0	20,30	100KHz,1V	38.4	4.10(3.69)	2.80(2.52)	1R0
HNR4018-1R5□	1.5	20,30	100KHz,1V	48	3.30(2.97)	2.60(2.34)	1R5
HNR4018-1R8□	1.8	20,30	100KHz,1V	66	2.80(2.50)	2.50(2.20)	1R8
HNR4018-2R2□	2.2	20,30	100KHz,1V	72	2.80(2.52)	2.50(2.25)	2R2
HNR4018-3R3□	3.3	20,30	100KHz,1V	84	2.20(1.98)	2.10(1.89)	3R3
HNR4018-3R6□	3.6	20,30	100KHz,1V	90	2.10(1.89)	1.90(1.71)	3R6
HNR4018-3R9□	3.9	20,30	100KHz,1V	90	2.10(1.89)	1.90(1.71)	3R9
HNR4018-4R7□	4.7	20,30	100KHz,1V	108	2.00(1.80)	1.70(1.53)	4R7
HNR4018-6R8□	6.8	20,30	100KHz,1V	132	1.60(1.44)	1.50(1.35)	6R8
HNR4018-8R2□	8.2	20,30	100KHz,1V	186	1.50(1.30)	1.30(1.10)	8R2
HNR4018-100□	10	20,30	100KHz,1V	204	1.40(1.26)	1.20(1.08)	100
HNR4018-150□	15	20,30	100KHz,1V	300	1.00(0.90)	1.00(0.90)	150
HNR4018-220□	22	20,30	100KHz,1V	420	0.90(0.81)	0.85(0.76)	220
HNR4018-330□	33	20,30	100KHz,1V	636	0.80(0.72)	0.70(0.63)	330
HNR4018-470□	47	20,30	100KHz,1V	864	0.70(0.63)	0.56(0.50)	470
HNR4018-680□	68	20,30	100KHz,1V	1200	0.56(0.50)	0.45(0.40)	680
HNR4018-101□	100	20,30	100KHz,1V	1800	0.46(0.41)	0.38(0.34)	101
HNR4018-121□	120	20,30	100KHz,1V	1920	0.38(0.34)	0.36(0.32)	121
HNR4018-151□	150	20,30	100KHz,1V	3000	0.35(0.31)	0.30(0.27)	151
HNR4018-221□	220	20,30	100KHz,1V	4800	0.28(0.25)	0.23(0.20)	221

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



Sealed Power Inductors - HNR4020 Series

HNR4020 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR4020-R47□	0.47	20,30	100KHz,1V	18	7.50(7.00)	4.50(4.00)	R47
HNR4020-R68□	0.68	20,30	100KHz,1V	22	6.80(6.40)	3.30(2.80)	R68
HNR4020-1R0□	1.0	20,30	100KHz,1V	38	5.20(4.80)	3.20(2.15)	1R0
HNR4020-1R5□	1.5	20,30	100KHz,1V	46	4.90(4.45)	3.00(1.98)	1R5
HNR4020-2R2□	2.2	20,30	100KHz,1V	52	3.50(3.40)	3.20(3.00)	2R2
HNR4020-3R3□	3.3	20,30	100KHz,1V	91	3.30(3.20)	2.50(1.40)	3R3
HNR4020-4R7□	4.7	20,30	100KHz,1V	98	2.50(2.35)	2.00(1.34)	4R7
HNR4020-6R8□	6.8	20,30	100KHz,1V	163	2.40(2.20)	1.60(1.10)	6R8
HNR4020-100□	10	20,30	100KHz,1V	215	1.70(1.60)	1.20(0.90)	100
HNR4020-150□	15	20,30	100KHz,1V	299	1.50(1.35)	1.10(0.77)	150
HNR4020-220□	22	20,30	100KHz,1V	455	1.10(1.05)	0.87(0.62)	220
HNR4020-330□	33	20,30	100KHz,1V	715	1.00(0.85)	0.60(0.50)	330
HNR4020-470□	47	20,30	100KHz,1V	923	0.75(0.70)	0.60(0.44)	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.
- Irms for a 40°C temperature rise from 25°C ambient with current

**Sealed Power Inductors - HNR4026 Series****HNR4026 series Electrical Characteristics**

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR4026-1R0□	1.0	20,30	100KHz,1V	39	5.00(4.50)	4.00(3.60)	1R0
HNR4026-1R5□	1.5	20,30	100KHz,1V	45.5	4.20(3.78)	3.70(3.33)	1R5
HNR4026-2R2□	2.2	20,30	100KHz,1V	58.5	3.80(3.42)	3.50(3.15)	2R2
HNR4026-3R3□	3.3	20,30	100KHz,1V	87.1	3.00(2.70)	2.50(2.25)	3R3
HNR4026-4R7□	4.7	20,30	100KHz,1V	119.6	2.60(2.34)	2.00(1.80)	4R7
HNR4026-5R6□	5.6	20,30	100KHz,1V	143	2.30(2.07)	1.90(1.71)	5R6
HNR4026-6R8□	6.8	20,30	100KHz,1V	169	2.00(1.80)	1.70(1.53)	6R8
HNR4026-100□	10	20,30	100KHz,1V	244.4	1.90(1.71)	1.40(1.26)	100
HNR4026-150□	15	20,30	100KHz,1V	312	1.45(1.30)	1.20(1.08)	150
HNR4026-220□	22	20,30	100KHz,1V	429	1.22(1.09)	1.00(0.90)	220
HNR4026-330□	33	20,30	100KHz,1V	624	1.00(0.90)	0.82(0.73)	330
HNR4026-101□	100	20,30	100KHz,1V	1794	0.58(0.52)	0.50(0.45)	101
HNR4026-331□	330	20,30	100KHz,1V	5980	0.31(0.27)	0.25(0.22)	331

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

- Operating temperature range—55℃~125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ temperature rise from 25℃ ambient with current



Sealed Power Inductors - HNR4030 Series

HNR4030 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(m Ω)	Isat(A)	Irms(A)	Marking
	(μ H)	(\pm %)		max	Typ.(Max)	Typ.(Max)	
HNR4030-1R0 \square	1.0	20,30	100KHz,1V	23.4	5.70(5.26)	4.70(4.14)	1R0
HNR4030-1R5 \square	1.5	20,30	100KHz,1V	30	5.30(4.60)	3.60(3.34)	1R5
HNR4030-2R2 \square	2.2	20,30	100KHz,1V	39	4.90(4.00)	3.20(2.95)	2R2
HNR4030-3R3 \square	3.3	20,30	100KHz,1V	2	3.60(3.30)	2.60(2.40)	3R3
HNR4030-4R7 \square	4.7	20,30	100KHz,1V	85	3.20(2.80)	2.90(2.50)	4R7
HNR4030-6R8 \square	6.8	20,30	100KHz,1V	117	3.00(2.60)	1.70(1.60)	6R8
HNR4030-100 \square	10	20,30	100KHz,1V	169	2.20(1.65)	1.50(1.30)	100
HNR4030-150 \square	15	20,30	100KHz,1V	247	1.60(1.40)	1.10(0.95)	150
HNR4030-220 \square	22	20,30	100KHz,1V	293	1.30(1.20)	1.00(0.90)	220
HNR4030-330 \square	33	20,30	100KHz,1V	550	1.10(0.96)	0.92(0.84)	330
HNR4030-470 \square	47	20,30	100KHz,1V	637	1.00(0.95)	0.80(0.72)	470
HNR4030-680 \square	68	20,30	100KHz,1V	1128	0.75(0.68)	0.57(0.52)	680
HNR4030-101 \square	100	20,30	100KHz,1V	1690	0.65(0.56)	0.49(0.40)	101
HNR4030-151 \square	150	20,30	100KHz,1V	3900	0.48(0.38)	0.35(0.30)	151
HNR4030-221 \square	220	20,30	100KHz,1V	3250	0.40(0.34)	0.35(0.28)	221
HNR4030-471 \square	470	20,30	100KHz,1V	9360	0.35(0.30)	0.23(0.20)	471

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

- Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (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



Sealed Power Inductors - HNR5020 Series

HNR5020 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR5020-1R0□	1.0	20,30	100KHz,1V	25.2	5.10(4.59)	4.00(3.60)	1R0
HNR5020-1R2□	1.2	30	100KHz,1V	25.2	4.80(4.32)	3.80(3.42)	1R2
HNR5020-1R5□	1.5	20,30	100KHz,1V	31.2	4.20(3.78)	3.50(3.15)	1R5
HNR5020-2R2□	2.2	20,30	100KHz,1V	42	3.40(3.06)	3.20(2.88)	2R2
HNR5020-2R7□	2.7	20,30	100KHz,1V	45.6	3.05(2.70)	2.90(2.60)	2R7
HNR5020-3R3□	3.3	20,30	100KHz,1V	57.6	3.00(2.70)	2.80(2.52)	3R3
HNR5020-4R7□	4.7	20,30	100KHz,1V	72	2.20(1.98)	2.20(1.98)	4R7
HNR5020-5R6□	5.6	20,30	100KHz,1V	98.4	2.05(1.84)	2.00(1.80)	5R6
HNR5020-6R8□	6.8	20,30	100KHz,1V	108	2.00(1.80)	1.80(1.62)	6R8
HNR5020-100□	10	20,30	100KHz,1V	144	1.60(1.44)	1.60(1.44)	100
HNR5020-150□	15	20,30	100KHz,1V	228	1.30(1.17)	1.20(1.08)	150
HNR5020-220□	22	20,30	100KHz,1V	312	1.00(0.90)	1.00(0.90)	220
HNR5020-330□	33	20,30	100KHz,1V	552	0.80(0.72)	0.75(0.67)	330
HNR5020-470□	47	20,30	100KHz,1V	696	0.65(0.58)	0.65(0.58)	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.
- Irms for a 40°C temperature rise from 25°C ambient with current



Sealed Power Inductors - HNR5040 Series

HNR5040 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR5040-1R0□	1.0	30	100KHz,1V	18.2	7.50(6.75)	4.60(4.14)	1R0
HNR5040-1R2□	1.2	20,30	100KHz,1V	19.5	7.40(6.66)	4.50(4.05)	1R2
HNR5040-1R5□	1.5	20,30	100KHz,1V	20.8	7.10(6.39)	4.40(3.96)	1R5
HNR5040-2R2□	2.2	20,30	100KHz,1V	27.3	5.70(5.13)	3.70(3.33)	2R2
HNR5040-3R3□	3.3	20,30	100KHz,1V	33.8	4.80(4.32)	3.50(3.15)	3R3
HNR5040-4R7□	4.7	20,30	100KHz,1V	41.6	4.20(3.78)	3.20(2.88)	4R7
HNR5040-6R8□	6.8	20,30	100KHz,1V	65	3.30(2.97)	2.40(2.16)	6R8
HNR5040-8R2□	8.2	20,30	100KHz,1V	75.4	3.10(2.70)	2.30(2.00)	8R2
HNR5040-100□	10	20,30	100KHz,1V	78	2.80(2.52)	2.20(1.98)	100
HNR5040-150□	15	20,30	100KHz,1V	117	2.30(2.07)	1.80(1.62)	150
HNR5040-220□	22	20,30	100KHz,1V	175.5	1.80(1.62)	1.40(1.26)	220
HNR5040-270□	27	20,30	100KHz,1V	234	1.60(1.44)	1.20(1.08)	270
HNR5040-330□	33	20,30	100KHz,1V	247	1.50(1.35)	1.10(0.99)	330
HNR5040-470□	47	20,30	100KHz,1V	403	1.20(1.08)	0.90(0.81)	470
HNR5020-680□	68	20,30	100KHz,1V	702	1.00(0.90)	0.78(0.70)	680
HNR5020-101□	100	20,30	100KHz,1V	1040	0.70(0.60)	0.60(0.50)	101

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



Sealed Power Inductors - HNR6020 Series

HNR6020 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR6020-1R0□	1.0	30	100KHz,1V	24.7	6.20(5.58)	4.10(3.69)	1R0
HNR6020-1R5□	1.5	30	100KHz,1V	33.8	5.00(4.50)	3.60(3.24)	1R5
HNR6020-2R2□	2.2	20,30	100KHz,1V	44.2	4.20(3.78)	3.20(2.88)	2R2
HNR6020-3R3□	3.3	20,30	100KHz,1V	52	3.20(2.88)	2.70(2.43)	3R3
HNR6020-4R7□	4.7	20,30	100KHz,1V	75.4	2.50(2.25)	2.20(1.98)	4R7
HNR6020-6R8□	6.8	20,30	100KHz,1V	110.5	2.20(1.98)	1.80(1.62)	6R8
HNR6020-100□	10	20,30	100KHz,1V	162.5	2.00(1.80)	1.60(1.44)	100
HNR6020-150□	15	20,30	100KHz,1V	247	1.30(1.17)	1.30(1.17)	150
HNR6020-220□	22	20,30	100KHz,1V	338	1.10(0.99)	1.10(0.99)	220

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



Sealed Power Inductors - HNR6028 Series

HNR6028 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR6028-1R0□	1.0	30	100KHz,1V	16.9	7.60(6.84)	5.20(4.68)	1R0
HNR6028-1R5□	1.5	30	100KHz,1V	20.8	6.30(5.67)	4.80(4.32)	1R5
HNR6028-2R2□	2.2	20,30	100KHz,1V	26	5.40(4.86)	4.00(3.60)	2R2
HNR6028-2R7□	2.7	20,30	100KHz,1V	33.8	4.90(4.41)	3.70(3.33)	2R7
HNR6028-3R3□	3.3	20,30	100KHz,1V	36.4	4.30(3.87)	3.50(3.15)	3R3
HNR6028-4R7□	4.7	20,30	100KHz,1V	49.4	3.70(3.33)	3.20(2.88)	4R7
HNR6028-6R0□	6.0	20,30	100KHz,1V	58.5	3.30(2.97)	2.80(2.52)	6R0
HNR6028-6R8□	6.8	20,30	100KHz,1V	65	3.10(2.79)	2.70(2.43)	6R8
HNR6028-100□	10	20,30	100KHz,1V	84.5	2.50(2.25)	2.30(2.07)	100
HNR6028-150□	15	20,30	100KHz,1V	123.5	2.00(1.80)	1.80(1.62)	150
HNR6028-220□	22	20,30	100KHz,1V	175.5	1.60(1.44)	1.50(1.35)	220
HNR6028-330□	33	20,30	100KHz,1V	286	1.30(1.17)	1.40(1.26)	330
HNR6028-470□	47	20,30	100KHz,1V	416	1.10(0.99)	1.00(0.90)	470
HNR6028-680□	68	20,30	100KHz,1V	546	0.98(0.88)	0.90(0.81)	680
HNR6028-101□	100	20,30	100KHz,1V	780	0.82(0.73)	0.80(0.72)	101

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

- Operating temperature range—55℃~125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ temperature rise from 25℃ ambient with current



Sealed Power Inductors - HNR6045 Series

HNR6045 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR6045-1R0□	1.0	20,30	100KHz,1V	15.6	12.20(10.98)	6.50(5.85)	1R0
HNR6045-1R2□	1.2	20,30	100KHz,1V	16.9	10.60(9.50)	5.90(5.30)	1R2
HNR6045-1R5□	1.5	20,30	100KHz,1V	19.5	10.40(9.36)	5.90(5.31)	1R5
HNR6045-1R8□	1.8	20,30	100KHz,1V	22.1	9.60(8.64)	5.60(5.04)	1R8
HNR6045-2R2□	2.2	20,30	100KHz,1V	23.92	8.80(7.92)	5.10(4.59)	2R2
HNR6045-2R3□	2.3	20,30	100KHz,1V	24.7	8.80(7.92)	5.00(4.50)	2R3
HNR6045-3R0□	3.0	20,30	100KHz,1V	28.6	7.80(7.02)	4.40(3.96)	3R0
HNR6045-3R3□	3.3	20,30	100KHz,1V	31.2	7.50(6.75)	4.30(3.87)	3R3
HNR6045-3R6□	3.6	20,30	100KHz,1V	31.2	7.50(6.75)	4.30(3.87)	3R6
HNR6045-3R9□	3.9	20,30	100KHz,1V	33.8	7.00(6.30)	4.00(3.60)	3R9
HNR6045-4R5□	4.5	20,30	100KHz,1V	40.3	6.70(6.03)	3.90(3.51)	4R5
HNR6045-4R7□	4.7	20,30	100KHz,1V	40.3	6.70(6.03)	3.90(3.51)	4R7
HNR6045-5R1□	5.1	20,30	100KHz,1V	42.9	6.00(5.40)	3.50(3.15)	5R1
HNR6045-5R6□	5.6	20,30	100KHz,1V	52	5.50(4.95)	3.30(2.97)	5R6
HNR6045-6R3□	6.3	20,30	100KHz,1V	52	5.50(4.95)	3.30(2.97)	6R3
HNR6045-6R8□	6.8	20,30	100KHz,1V	55.9	5.30(4.77)	3.20(2.88)	6R8
HNR6045-8R2□	8.2	20,30	100KHz,1V	68.9	4.60(4.10)	2.90(2.60)	8R2
HNR6045-100□	10	20,30	100KHz,1V	74.1	4.50(4.05)	2.70(2.43)	100
HNR6045-150□	15	20,30	100KHz,1V	104	3.40(3.06)	2.20(1.98)	150
HNR6045-180□	18	20,30	100KHz,1V	130	3.10(2.79)	1.80(1.62)	180
HNR6045-220□	22	20,30	100KHz,1V	162.5	3.00(2.70)	1.90(1.71)	220
HNR6045-270□	27	20,30	100KHz,1V	208	2.50(2.25)	1.30(1.17)	270

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

- Operating temperature range -55℃~125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ temperature rise from 25℃ ambient with current



Sealed Power Inductors - HNR6045 Series

HNR6045 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR6045-330□	33	20,30	100KHz,1V	214.5	2.30(2.07)	1.40(1.26)	330
HNR6045-470□	47	20,30	100KHz,1V	318.5	1.90(1.71)	1.20(1.08)	470
HNR6045-560□	56	20,30	100KHz,1V	403	1.70(1.50)	1.10(0.99)	560
HNR6045-680□	68	20,30	100KHz,1V	429	1.60(1.44)	1.00(0.90)	680
HNR6045-101□	100	20,30	100KHz,1V	650	1.30(1.17)	0.80(0.72)	101
HNR6045-221□	220	20,30	100KHz,1V	1690	0.82(0.73)	0.38(0.34)	221
HNR6045-331□	330	20,30	100KHz,1V	2340	0.70(0.63)	0.35(0.31)	331
HNR6045-102□	1000	20,30	100KHz,1V	7800	0.40(0.36)	0.22(0.19)	102

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



Sealed Power Inductors - HNR8040 Series

HNR8040 series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)	Marking
	(uH)	(±%)		max	Typ.(Max)	Typ.(Max)	
HNR8040-R90□	0.9	20,30	100KHz,1V	9.1	13.80(12.42)	8.05(7.24)	R90
HNR8040-1R0□	1.0	20,30	100KHz,1V	9.75	13.00(11.70)	7.95(7.15)	1R0
HNR8040-1R4□	1.4	20,30	100KHz,1V	11.7	10.80(9.72)	7.80(7.02)	1R4
HNR8040-1R5□	1.5	20,30	100KHz,1V	12.35	10.00(9.00)	7.70(6.93)	1R5
HNR8040-2R0□	2.0	20,30	100KHz,1V	14.3	9.60(8.64)	7.40(6.66)	2R0
HNR8040-2R2□	2.2	20,30	100KHz,1V	14.95	9.20(8.28)	7.20(6.48)	2R2
HNR8040-2R5□	2.5	20,30	100KHz,1V	16.9	8.20(7.38)	6.30(5.67)	2R5
HNR8040-3R3□	3.3	20,30	100KHz,1V	19.5	7.50(6.75)	6.00(5.40)	3R3
HNR8040-3R9□	3.9	20,30	100KHz,1V	23.4	6.10(5.40)	5.50(4.90)	3R9
HNR8040-4R7□	4.7	20,30	100KHz,1V	23.4	6.00(5.40)	5.50(4.95)	4R7
HNR8040-5R6□	5.6	20,30	100KHz,1V	29.9	5.70(5.13)	5.20(4.68)	5R6
HNR8040-6R8□	6.8	20,30	100KHz,1V	32.5	5.40(4.68)	5.10(4.59)	6R8
HNR8040-100□	10	20,30	100KHz,1V	49.4	4.30(3.87)	3.80(3.42)	100
HNR8040-120□	12	20,30	100KHz,1V	58.5	3.80(3.42)	3.50(3.15)	120
HNR8040-150□	15	20,30	100KHz,1V	65	3.60(3.24)	3.20(2.88)	150
HNR8040-180□	18	20,30	100KHz,1V	88.4	3.10(2.79)	2.70(2.43)	180
HNR8040-220□	22	20,30	100KHz,1V	104	2.80(2.52)	2.60(2.34)	220
HNR8040-330□	33	20,30	100KHz,1V	143	2.30(2.07)	2.00(1.80)	330
HNR8040-470□	47	20,30	100KHz,1V	208	1.90(1.71)	1.75(1.57)	470
HNR8040-680□	68	20,30	100KHz,1V	312	1.70(1.53)	1.45(1.30)	680
HNR8040-101□	100	20,30	100KHz,1V	442	1.40(1.26)	1.10(0.99)	101
HNR8040-121□	120	20,30	100KHz,1V	552.5	1.10(0.99)	1.00(0.90)	121
HNR8040-151□	150	20,30	100KHz,1V	624	1.00(0.90)	0.90(0.81)	151
HNR8040-181□	180	20,30	100KHz,1V	845	0.98(0.88)	0.70(0.63)	181
HNR8040-221□	220	20,30	100KHz,1V	871	0.94(0.84)	0.60(0.54)	221
HNR8040-271□	270	20,30	100KHz,1V	1170	0.83(0.74)	0.55(0.49)	271
HNR8040-821□	820	20,30	100KHz,1V	3640	0.40(0.36)	0.38(0.34)	821

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

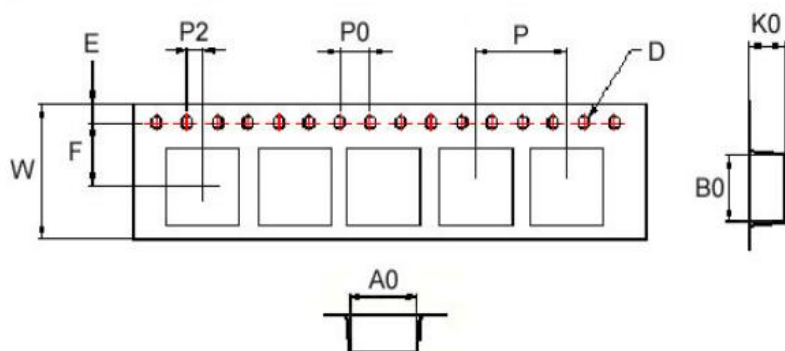
- Operating temperature range—55℃~125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40℃ temperature rise from 25℃ ambient with current



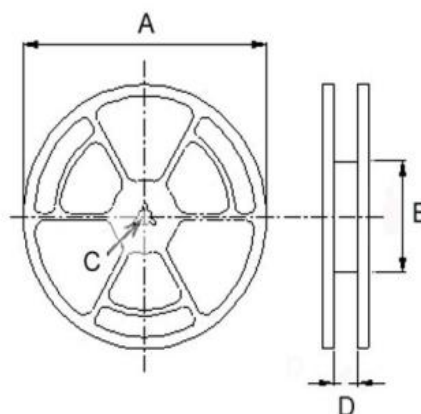
Sealed Power Inductors - HNR Series

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	
HNR201610	1.90	2.20	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR252010	2.40	2.70	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR252012	2.40	2.70	1.35	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR3010	3.20	3.20	1.40	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR3012	3.20	3.20	1.40	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR3015	3.30	3.30	1.60	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR4012	4.25	4.25	1.30	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	1000
HNR4015	4.25	4.25	2.10	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	1000
HNR4018	4.25	4.25	2.10	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	800
HNR4020	4.25	4.25	2.30	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	800
HNR4026	4.25	4.25	3.00	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	500
HNR4030	4.25	4.25	2.10	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	500
HNR5020	5.25	5.25	2.20	1.55	1.75	5.5	12	8.1	4	2	330	100	13	13.4	2000
HNR5040	5.20	5.20	4.20	1.55	1.75	5.5	12	8.1	4	2	330	100	13	13.4	1500
HNR6020	6.25	6.25	2.20	1.55	1.75	7.5	16	12	4	2	330	100	13	16	2000
HNR6028	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	100	16	1500
HNR6045	6.25	6.25	4.65	1.55	1.75	7.5	16	12	4	2	330	100	100	16	1000
HNR8040	8.25	8.25	4.15	1.55	1.75	4.5	16	12	4	2	330	100	100	16	1000