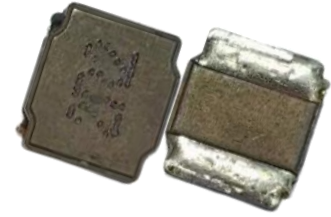




## Sealed Power Inductors - HNR-A Series

HNR-A series, metal alloy wire wound power inductor, its rated current could be increased up to 35% compare to ferrite base power inductor.



### FEATURES

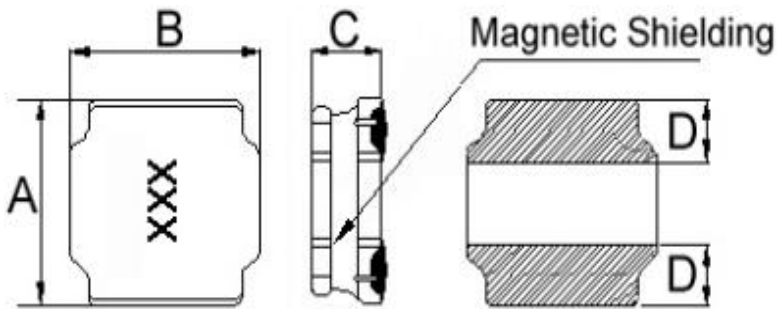
- \* RoHS, Halogen Free and REACH Compliance
- \* Constructure Low RDC and high rated current.
- \* Wide inductance range
- \* Shielded and miniature package design

### 产品标识 Product Identification

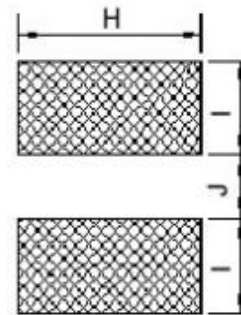
**HNR**    □□□□    -    □□□    □    -    **A**  
(1)            (2)            (3)    (4)    (5)

- (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
- (5) 材质 Metal Alloy

### Shape and Dimensions



### Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D Typ.	H Typ.	I Typ.	J Typ.
HNR201610-A	2.0±0.3	1.6±0.3	1.05max	0.6	1.7	0.7	0.7
HNR252010-A	2.5±0.3	2.0±0.3	1.02max	0.8	2.0	0.85	0.8
HNR252012-A	2.5±0.3	2.0±0.3	1.2±0.05	0.8	2.0	0.85	0.8
HNR3012-A	3.0±0.2	3.0±0.2	1.35max	0.9	2.7	0.8	1.5
HNR3015-A	3.0±0.2	3.0±0.2	1.5 <sup>+0.2</sup> <sub>-0.3</sub>	0.9	2.5	1.0	1.0
HNR4012-A	4.0±0.2	4.0±0.2	1.2 <sup>+0.2</sup> <sub>-0.3</sub>	1.3	3.7	1.2	1.6
HNR4020-A	4.0±0.2	4.0±0.2	2.0 <sup>+0.2</sup> <sub>-0.3</sub>	1.3	3.7	1.2	1.6



## Sealed Power Inductors - HNR201610-A Series

### HNR201610-A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Max	Typ.(Max)	Typ.(Max)
HNR201610-R24□-A	0.24	30	1MHz,1V	40	5.50(4.50)	3.45(3.00)
HNR201610-R33□-A	0.33	30	1MHz,1V	49	5.20(4.40)	3.10(2.70)
HNR201610-R47□-A	0.47	30	1MHz,1V	49	4.70(4.00)	3.10(2.70)
HNR201610-R68□-A	0.68	30	1MHz,1V	65	4.00(3.50)	2.80(2.50)
HNR201610-1R0□-A	1.0	30	1MHz,1V	95	3.80(3.30)	2.30(2.00)
HNR201610-1R5□-A	1.5	30	1MHz,1V	130	2.30(1.95)	2.00(1.70)
HNR201610-2R2□-A	2.2	20,30	1MHz,1V	180	2.15(1.90)	1.60(1.40)
HNR201610-3R3□-A	3.3	20,30	1MHz,1V	307	1.60(1.40)	1.30(1.10)
HNR201610-4R7□-A	4.7	20,30	1MHz,1V	425	1.40(1.10)	1.00(0.90)
HNR201610-6R8□-A	6.8	20,30	1MHz,1V	620	1.10(0.95)	0.82(0.70)
HNR201610-8R2□-A	8.2	20,30	1MHz,1V	870	1.00(0.86)	0.76(0.66)
HNR201610-100□-A	10	20,30	1MHz,1V	875	0.95(0.80)	0.70(0.60)

**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 - HNR252010-A Series

### HNR252010-A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Max	Typ.(Max)	Typ.(Max)
HNR252010-R24□-A	0.24	30	1MHz,1V	33	7.10(6.10)	4.50(3.70)
HNR252010-R33□-A	0.33	30	1MHz,1V	39	5.50(4.80)	4.05(3.50)
HNR252010-R47□-A	0.47	30	1MHz,1V	45	5.20(4.40)	3.60(3.20)
HNR252010-R68□-A	0.68	30	1MHz,1V	59	3.60(3.20)	3.20(2.75)
HNR252010-1R0□-A	1.0	30	1MHz,1V	85	4.00(3.10)	2.60(2.20)
HNR252010-1R5□-A	1.5	30	1MHz,1V	106	3.00(2.60)	2.30(2.00)
HNR252010-2R2□-A	2.2	20,30	1MHz,1V	155	2.20(1.90)	1.80(1.50)
HNR252010-3R3□-A	3.3	20,30	1MHz,1V	235	1.80(1.60)	1.40(1.20)
HNR252010-4R7□-A	4.7	20,30	1MHz,1V	340	1.50(1.30)	1.10(1.00)
HNR252010-6R8□-A	6.8	20,30	1MHz,1V	480	1.15(1.00)	1.00(0.95)
HNR252010-100□-A	10	20,30	1MHz,1V	740	1.00(0.90)	0.75(0.65)

**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 - HNR252012-A Series

### HNR252012-A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Max	Typ.(Max)	Typ.(Max)
HNR252012-R24□-A	0.24	30	1MHz,1V	23	7.80(6.50)	4.70(4.05)
HNR252012-R33□-A	0.33	30	1MHz,1V	35	6.30(5.35)	4.30(3.70)
HNR252012-R47□-A	0.47	30	1MHz,1V	35	5.60(4.90)	4.00(3.45)
HNR252012-R68□-A	0.68	30	1MHz,1V	45	4.50(3.80)	3.60(3.15)
HNR252012-1R0□-A	1.0	30	1MHz,1V	54	4.20(3.60)	3.40(3.00)
HNR252012-1R5□-A	1.5	30	1MHz,1V	100	3.50(2.90)	2.80(2.40)
HNR252012-2R2□-A	2.2	20,30	1MHz,1V	120	3.00(2.60)	2.15(1.90)
HNR252012-3R3□-A	3.3	20,30	1MHz,1V	215	2.10(1.70)	1.80(1.50)
HNR252012-4R7□-A	4.7	20,30	1MHz,1V	260	1.90(1.60)	1.45(1.25)
HNR252012-6R8□-A	6.8	20,30	1MHz,1V	366	1.40(1.20)	1.10(0.95)
HNR252012-8R2□-A	8.2	20,30	1MHz,1V	460	1.36(1.15)	1.06(0.88)
HNR252012-100□-A	10	20,30	1MHz,1V	480	1.35(1.10)	1.00(0.85)

**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-A Series

### HNR3012-A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(m $\Omega$ )	Isat(A)	Irms(A)
	( $\mu$ H)	( $\pm\%$ )		Max	Typ.(Max)	Typ.(Max)
HNR3012-R47 $\square$ -A	0.47	30	1MHz,1V	33	8.00(6.80)	4.30(3.90)
HNR3012-1R0 $\square$ -A	1.0	30	1MHz,1V	54	5.20(4.20)	3.10(2.70)
HNR3012-1R5 $\square$ -A	1.5	30	1MHz,1V	74	4.10(3.40)	2.90(2.50)
HNR3012-2R2 $\square$ -A	2.2	20,30	1MHz,1V	108	3.35(2.80)	2.35(2.05)
HNR3012-3R3 $\square$ -A	3.3	20,30	1MHz,1V	155	2.60(2.20)	2.00(1.70)
HNR3012-4R7 $\square$ -A	4.7	20,30	1MHz,1V	235	2.50(2.00)	1.70(1.30)
HNR3012-6R8 $\square$ -A	6.8	20,30	1MHz,1V	340	1.90(1.60)	1.25(1.10)
HNR3012-100 $\square$ -A	10	20,30	1MHz,1V	432	1.45(1.20)	1.15(1.00)

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

- Operating temperature range – 55 $^{\circ}$ C ~ 125 $^{\circ}$ C (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current.
- I rms for a 40 $^{\circ}$ C temperature rise from 25 $^{\circ}$ C ambient with current



## Sealed Power Inductors - HNR3015-A Series

### HNR3015-A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Max	Typ.(Max)	Typ.(Max)
HNR3015-R33□-A	0.33	30	1MHz,1V	35	10.00(9.00)	4.50(4.00)
HNR3015-1R0□-A	1.0	30	1MHz,1V	48	7.00(5.80)	3.80(3.30)
HNR3015-1R5□-A	1.5	30	1MHz,1V	72	5.50(4.60)	2.70(2.20)
HNR3015-2R2□-A	2.2	20,30	1MHz,1V	115	4.50(4.00)	2.30(2.00)
HNR3015-3R3□-A	3.3	20,30	1MHz,1V	175	4.00(3.40)	2.50(2.00)
HNR3015-4R7□-A	4.7	20,30	1MHz,1V	215	3.30(3.00)	2.40(1.80)
HNR3015-6R8□-A	6.8	20,30	1MHz,1V	290	2.50(2.00)	2.00(1.50)
HNR3015-100□-A	10	20,30	1MHz,1V	460	2.00(1.50)	2.00(1.50)
HNR3015-150□-A	15	20,30	1MHz,1V	850	1.80(1.40)	1.20(1.00)
HNR3015-220□-A	22	20,30	1MHz,1V	975	1.40(1.15)	0.90(0.75)

**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 - HNR4012-A Series

### HNR4012-A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(m $\Omega$ )	Isat(A)	Irms(A)	Marking
	( $\mu$ H)	( $\pm$ %)		Max	Typ.(Max)	Typ.(Max)	
HNR4012-R68□-A	0.68	30	1MHz,1V	46	5.60(5.00)	4.70(4.00)	R68
HNR4012-1R0□-A	1.0	30	1MHz,1V	66	5.30(4.50)	4.20(3.60)	1R0
HNR4012-1R5□-A	1.5	30	1MHz,1V	70	4.50(3.90)	3.90(3.20)	1R5
HNR4012-2R2□-A	2.2	20,30	1MHz,1V	102	2.80(2.50)	2.80(2.30)	2R2
HNR4012-3R3□-A	3.3	20,30	1MHz,1V	145	2.60(2.30)	2.50(2.20)	3R3
HNR4012-4R7□-A	4.7	20,30	1MHz,1V	187	2.60(2.30)	2.20(1.90)	4R7
HNR4012-6R8□-A	6.8	20,30	1MHz,1V	255	2.20(1.60)	1.90(1.60)	6R8
HNR4012-100□-A	10	20,30	1MHz,1V	408	1.80(1.40)	1.50(1.10)	100
HNR4012-150□-A	15	20,30	1MHz,1V	632	1.60(1.20)	1.25(0.90)	150
HNR4012-220□-A	22	20,30	1MHz,1V	763	1.35(1.10)	0.95(0.75)	220

**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  $40^{\circ}\text{C}$  temperature rise from  $25^{\circ}\text{C}$  ambient with current



## Sealed Power Inductors - HNR4020-A Series

### HNR4020-A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(m $\Omega$ )	Isat(A)	Irms(A)	Marking
	( $\mu$ H)	( $\pm$ %)		Max	Typ.(Max)	Typ.(Max)	
HNR4020-R47 $\square$ -A	0.47	30	1MHz,1V	32	12.0(10.0)	7.50(6.40)	R47
HNR4020-1R0 $\square$ -A	1.0	30	1MHz,1V	39	7.70(7.00)	4.50(3.00)	1R0
HNR4020-2R2 $\square$ -A	2.2	20,30	1MHz,1V	93	7.00(6.00)	3.50(3.00)	2R2
HNR4020-3R3 $\square$ -A	3.3	20,30	1MHz,1V	117	5.20(4.80)	3.20(2.15)	3R3
HNR4020-4R7 $\square$ -A	4.7	20,30	1MHz,1V	153	4.70(4.40)	2.20(2.00)	4R7
HNR4020-100 $\square$ -A	10	20,30	1MHz,1V	235	3.50(2.80)	2.35(2.00)	100

**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  $40^{\circ}\text{C}$  temperature rise from  $25^{\circ}\text{C}$  ambient with current

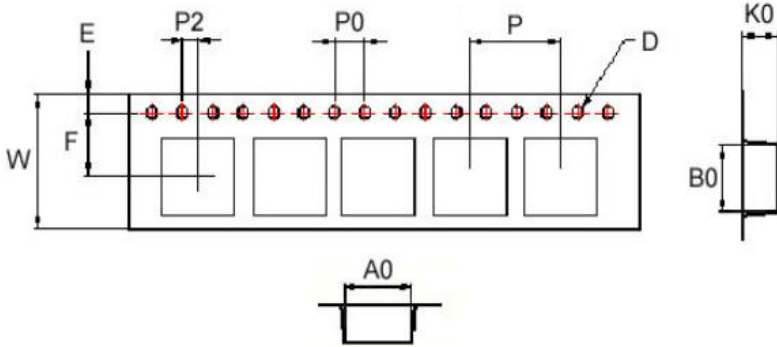




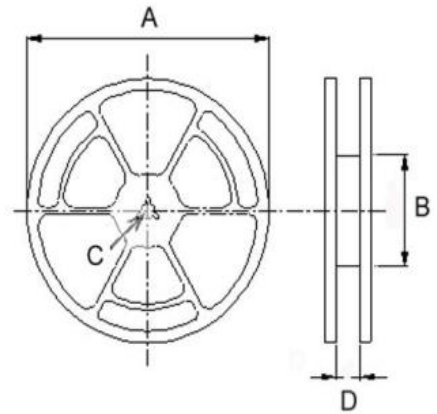
## Sealed Power Inductors - HNR-A Series

### 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-A	1.90	2.20	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR252010-A	2.40	2.70	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR252012-A	2.40	2.70	1.35	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR3012-A	3.20	3.20	1.40	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR3015-A	3.30	3.30	1.60	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	2000
HNR4012-A	4.25	4.25	1.30	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	1000
HNR4020-A	4.25	4.25	2.30	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	800