



## SMD Power Inductors-HNR Series

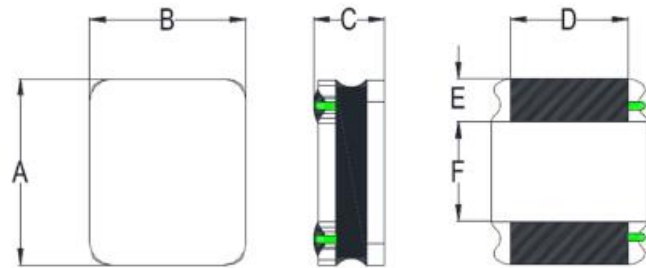
### Features

- ◆ low profile, low RDC ,high current handling capacities
- ◆ Magnetically shielded structure that ensures the high-density mounting configurations
- ◆ Flat bottom surface ensures secure, reliable mounting.

### Applications

Ideally used in Digital camera, notebook, PC,  
LCD TV set, DC-DC Converters,etc.

### Dimensions (mm)



### Product Identification

HNR 252012 SYB - 2R2 □

HNR: SERIES NAME(Alloy material)

252012: DIMENSION Size Code

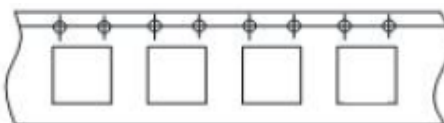
S: SHAPE T: 12边型 B: 8边型 S:4边型

Y: 密封方式Sealing way (L: 冷封Cold seal Y: 热封Heat seal)

B: 印字方向Lettering direction ▶

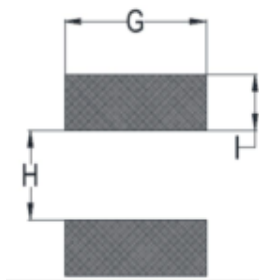
2R2: 电感值Inductance Value

□: TOLERANCE M=±20%. N=±30%. B:



SERIES	A	B	C	D	E	F
HNR252012	2.5+0.3/-0.1	2.0+0.35/-0.05	1.25MAX	1.5±0.2	0.8±0.2	0.8±0.2
HNR252010	2.5±0.2	2.0±0.2	1.05MAX	1.5±0.2	0.8±0.2	0.8±0.2
HNR201610	2.0±0.2	1.6±0.2	1.08MAX	1.2±0.3	0.6±0.2	0.8±0.2

### RECOMMENDER P.C.B LAYOUT



SERIES	G	H	I
HNR252012	2.0REF	0.8REF	0.85REF
HNR252010	2.0REF	0.80REF	0.85REF
HNR201610	1.60REF	0.80REF	0.80REF



## SMD Power Inductors-HNR Series

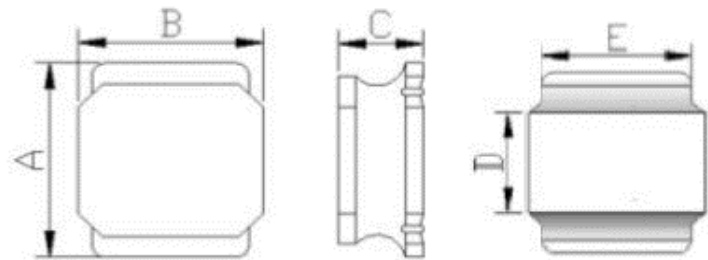
### Features

- ◆ low profile, low RDC ,high current handling capacities
- ◆ Magnetically shielded structure that ensures the high-density mounting configurations
- ◆ Flat bottom surface ensures secure, reliable mounting.

### Applications

Ideally used in Digital camera, notebook, PC,  
LCD TV set, DC-DC Converters,etc.

### Dimensions (mm)



### Product Identification

HNR 4012 BYB - 2R2 □

SERIES	A	B	C	D	E
HNR4012	4.0±0.2	4.0±0.2	1.2MAX	1.8±0.3	3.3±0.2

HNR: SERIES NAME(Alloy material)

4012: DIMENSION Size Code

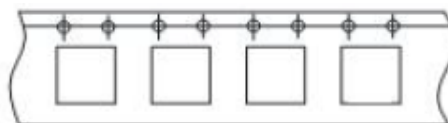
B: SHAPE T: 12边型 B: 8边型 S:4边型

Y: 密封方式Sealing way (L: 冷封Cold seal Y: 热封Heat seal)

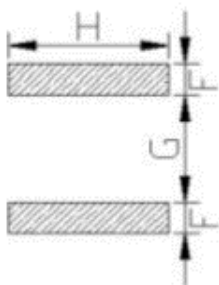
B: 印字方向Lettering direction ▶

2R2: 电感值Inductance Value

□: TOLERANCE M=±20%. N=±30%. B:



### RECOMMENDER P.C.B LAYOUT



SERIES	F	G	H
HNR4012	1.3REF	1.6REF	3.7REF



## SMD Power Inductors-HNR Series

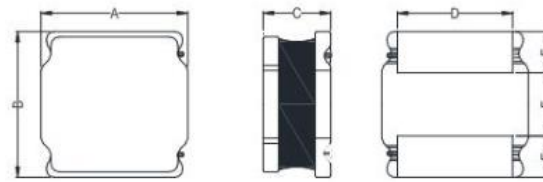
### Features

- ◆ low profile, low RDC ,high current handling capacities
- ◆ Magnetically shielded structure that ensures the high-density mounting configurations
- ◆ Flat bottom surface ensures secure, reliable mounting.

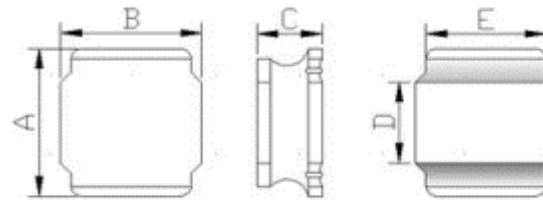
### Applications

Ideally used in Digital camera, notebook, PC,  
LCD TV set, DC-DC Converters,etc.

### Dimensions (mm)



SERIES	A	B	C	D	E	F
HNR3012	3.0±0.2	3.0±0.2	1.20MAX	2.3±0.3	1.0±0.3	1.0±0.3



### Product Identification

HNR 4020 TYB - 2R2 □

HNR: SERIES NAME(Alloy material)

4020: DIMENSION Size Code

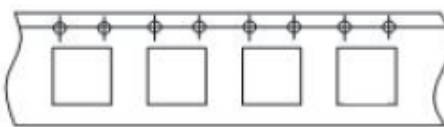
T: SHAPE T: 12边型 B: 8边型 S:4边型

Y: 密封方式Sealing way (L: 冷封Cold seal Y: 热封Heat seal)

B: 印字方向Lettering direction ▶

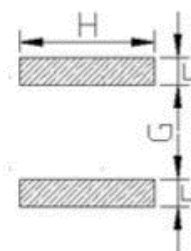
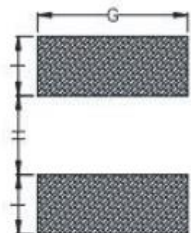
2R2: 电感值Inductance Value

□: TOLERANCE M=±20%. N=±30%. B:



SERIES	A	B	C	D	E
HNR3015	3.0±0.2	3.0±0.2	1.55MAX	1.4REF	2.5REF
HNR4020	4.0±0.2	4.0±0.2	2.0MAX	2.0±0.2	3.3±0.2

### RECOMMENDER P.C.B LAYOUT



SERIES	G	H	I
HNR4020	2.7REF	1.5REF	0.8REF

SERIES	F	G	H
HNR3015	0.8REF	1.5REF	2.7REF
HNR4020	1.1REF	1.9REF	3.7REF



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## SMD Power Inductors-HNR252012 Series

### Electrical Characteristics

Part Number	Inductance	DC Resistance	Isat	Irms
	(uH)	(Ω) MAX	A	A
HNR252012SYB-R24M	0.24	0.023	6.50	4.05
HNR252012SYB-R33M	0.33	0.028	5.35	3.70
HNR252012SYB-R47M	0.47	0.035	4.90	3.45
HNR252012SYB-R68M	0.68	0.045	3.80	3.15
HNR252012SYB-1R0M	1.0	0.054	3.60	3.00
HNR252012SYB-1R5M	1.5	0.072	2.90	2.40
HNR252012SYB-2R2M	2.2	0.120	2.60	1.90
HNR252012SYB-3R3M	3.3	0.215	1.70	1.50
HNR252012SYB-4R7M	4.7	0.260	1.60	1.25
HNR252012SYB-6R8M	6.8	0.366	1.20	0.95
HNR252012SYB-100M	10.0	0.480	1.10	0.85

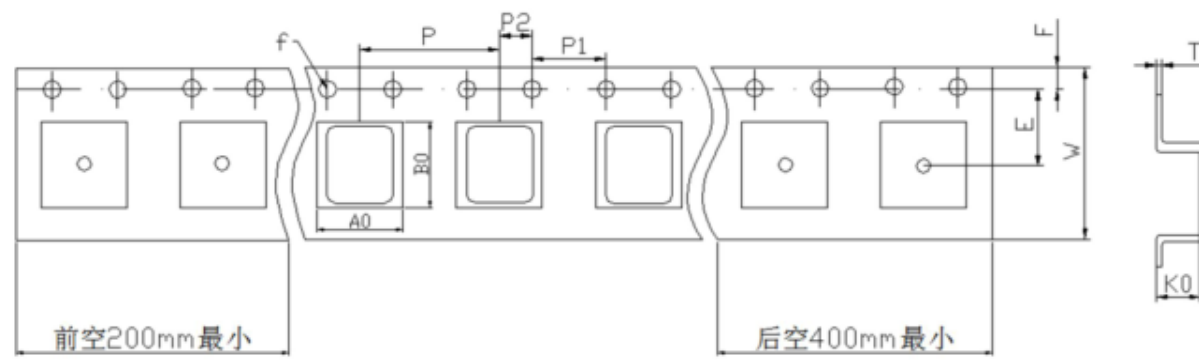
● Test Frequency: 100KHz/0.25V

#### Note

- 公差Tolerance: N:±30%、M:±20%、K:±10%.
- 工作溫度Operating temperature rang: -40 °C to +125°C (Including Self-heating )
- 儲存溫度Storage temperature rang: -40 °C to +125°C
- 額定電流: 指使電感量比初始值下降30%Max或電感器表面溫度上升 $\Delta T \leq 40^\circ\text{C}$ 的電流值 (參考周圍環境溫度 25°C)。The rated DC current is that which cause at 30%Max inductance reduction from the initial value or inductor surface temperature to rise by  $\Delta T \leq 40^\circ\text{C}$ , whichever is smaller (Reference ambient temperature 25°C)。

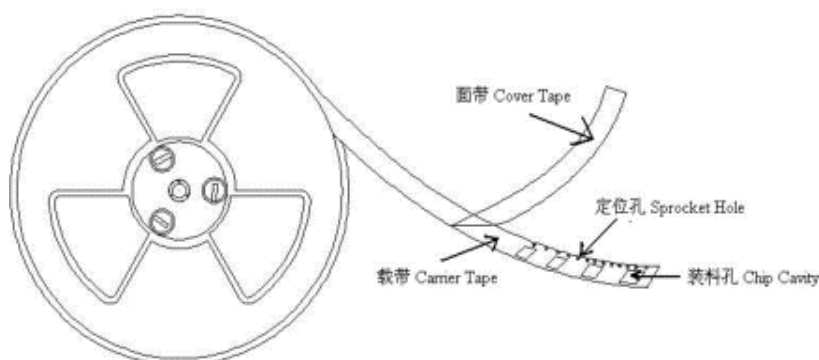

**SMD Power Inductors-HNR252012 Series**
**PACKAGING**

## 1) 載帶包裝示意图 Tape packing diagram



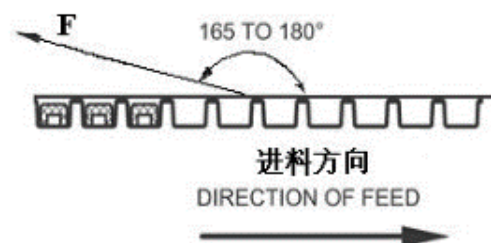
ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	8.00	2.35	2.65	1.20	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

## 2) 卷盤包裝示意图 Tape packing diagram



## 3) 剥离强度要求 Peeling required

- ① F 力大小: 20~100g;
- ② 面帶剥离角度: 165°~180°。



## 4) 包装数量 Packing quantity

项目 (Project)	数量 (PCS)	尺寸规格 (Size:mm)
盘(Reel)	2000	7"
内盒 (Inner box)	20K	185mm*185mm*120mm
外箱 (Out box)	120K	395mm*385mm*205mm



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## SMD Power Inductors-HNR252010 Series

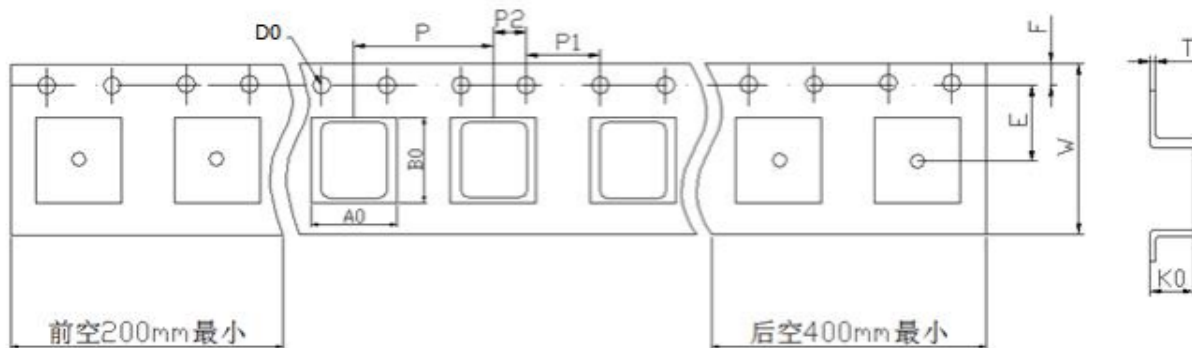
### Electrical Characteristics

Part Number	Inductance	DC Resistance	Isat	Irms
	(uH)	(Ω) MAX	A	A
HNR252010SYB-R24M	0.24	0.033	6.10	3.70
HNR252010SYB-R33M	0.33	0.039	4.80	3.50
HNR252010SYB-R47M	0.47	0.045	4.40	3.20
HNR252010SYB-R68M	0.68	0.059	3.20	2.75
HNR252010SYB-1R0M	1.0	0.085	3.10	2.20
HNR252010SYB-1R5M	1.5	0.106	2.60	2.00
HNR252010SYB-2R2M	2.2	0.155	1.90	1.50
HNR252010SYB-3R3M	3.3	0.235	1.60	1.20
HNR252010SYB-4R7M	4.7	0.290	1.30	1.00
HNR252010SYB-6R8M	6.8	0.480	1.00	0.95
HNR252010SYB-100M	10.0	0.740	0.90	0.65

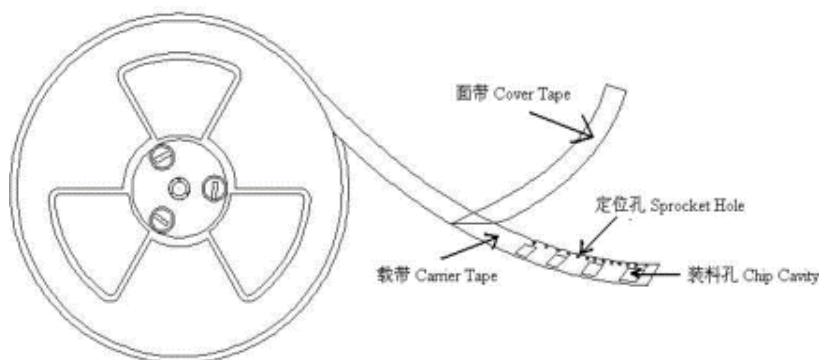
● Test Frequency: 100KHz/0.25V

#### Note

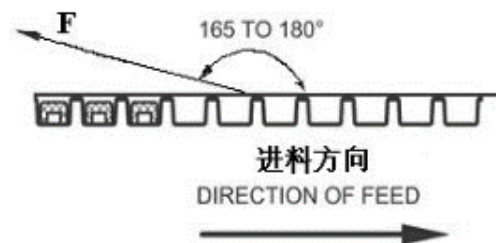
- 公差Tolerance: N:±30%、M:±20%、K:±10%.
- 工作溫度Operating temperature rang: -40 °C to +125°C (Including Self-heating )
- 儲存溫度Storage temperature rang: -40 °C to +125°C
- 額定電流: 指使電感量比初始值下降30%Max或電感器表面溫度上升 $\Delta T \leq 40^\circ\text{C}$ 的電流值 (參考周圍環境溫度 25°C)。The rated DC current is that which cause at 30%Max inductance reduction from the initial value or inductor surface temperature to rise by  $\Delta T \leq 40^\circ\text{C}$ , whichever is smaller ( Reference ambient temperature 25°C)。


**SMD Power Inductors-HNR252010 Series**
**PACKAGING**
**1) 載帶包裝示意图 Tape packing diagram**


ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	8.00	2.35	2.65	1.20	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

**2) 卷盤包裝示意图 Tape packing diagram**

**3) 剥离强度要求 Peeling required**

- ① F 力大小: 20~100g;
- ② 面帶剥离角度: 165°~180°。


**4) 包装数量 Packing quantity**

项目 (Project)	数量 (PCS)	尺寸规格 (Size:mm)
盘 (Reel)	2000	7"
内盒 (Inner box)	20K	185mm*185mm*120mm
外箱 (Out box)	120K	395mm*385mm*205mm



## SMD Power Inductors-HNR201610 Series

### Electrical Characteristics

Part Number	Inductance	DC Resistance	Isat	Irms
	(uH)	(Ω) MAX	A	A
HNR201610SYB-R24M	0.24	0.040	4.50	3.00
HNR201610SYB-R33M	0.33	0.049	4.40	2.70
HNR201610SYB-R47M	0.47	0.049	4.06	2.70
HNR201610SYB-R56M	0.56	0.053	3.80	2.60
HNR201610SYB-R68M	0.68	0.065	3.50	2.50
HNR201610SYB-1R0M	1.0	0.095	3.30	2.00
HNR201610SYB-1R5M	1.5	0.130	1.95	1.70
HNR201610SYB-2R2M	2.2	0.180	1.90	1.40
HNR201610SYB-3R3M	3.3	0.307	1.40	1.10
HNR201610SYB-4R7M	4.7	0.425	1.10	0.90
HNR201610SYB-6R8M	6.8	0.620	0.95	0.70
HNR201610SYB-8R2M	8.2	0.870	0.86	0.66
HNR201610SYB-100M	10.0	0.875	0.80	0.60
HNR201610SYB-150M	15.0	1.700	0.69	0.36

● Test Frequency: 100KHz/0.25V

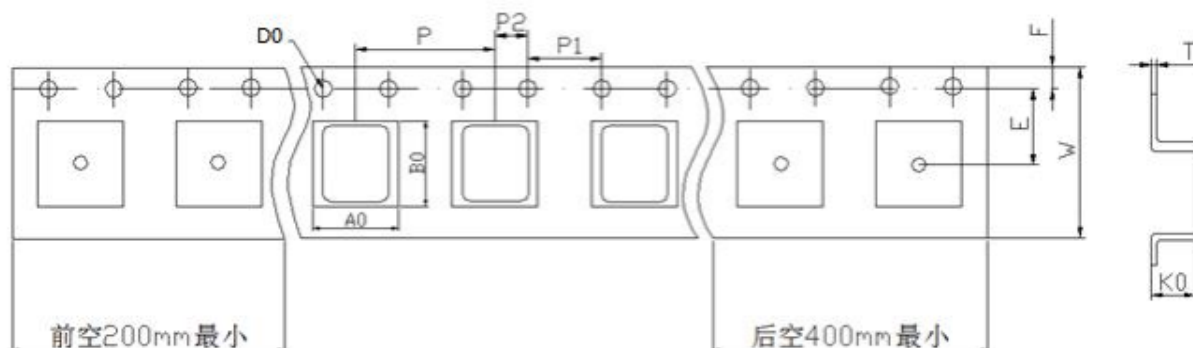
#### Note

- 公差Tolerance: N:±30%、M:±20%、K:±10%.
- 工作溫度Operating temperature rang: -40 °C to +125°C (Including Self-heating )
- 儲存溫度Storage temperature rang: -40 °C to +125°C
- 額定電流: 指使電感量比初始值下降30%Max或電感器表面溫度上升 $\Delta T \leq 40^\circ\text{C}$ 的電流值 (參考周圍環境溫度 25°C)。The rated DC current is that which cause at 30%Max inductance reduction from the initial value or inductor surface temperature to rise by  $\Delta T \leq 40^\circ\text{C}$ , whichever is smaller (Reference ambient temperature 25°C)。



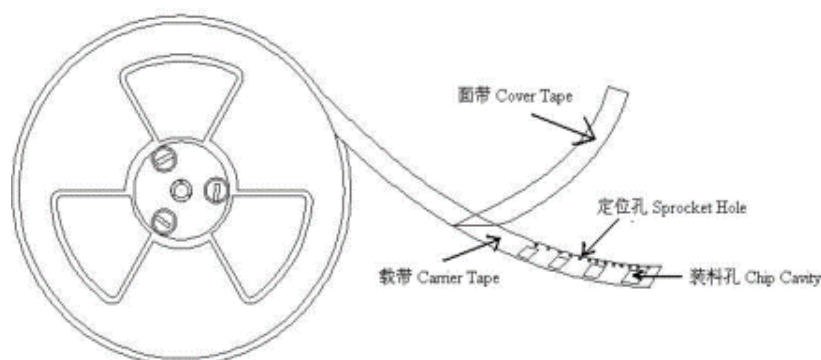

**SMD Power Inductors-HNR201610 Series**
**PACKAGING**

## 1) 載帶包裝示意图 Tape packing diagram



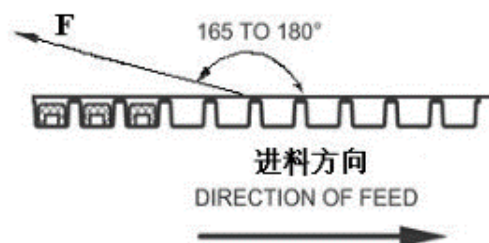
ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	8.00	2.00	2.40	1.20	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05

## 2) 卷盤包裝示意图 Tape packing diagram



## 3) 剥离强度要求 Peeling required

- ① F 力大小: 20~100g;
- ② 面帶剥离角度: 165°~180°。



## 4) 包裝数量 Packing quantity

项目 (Project)	数量 (PCS)	尺寸规格 (Size:mm)
盘(Reel)	2000	7"
内盒 (Inner box)	20K	185mm*185mm*120mm
外箱 (Out box)	120K	395mm*385mm*205mm



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## SMD Power Inductors-HNR4012 Series

### Electrical Characteristics

Part Number	Inductance	DC Resistance	Isat	Irms
	(uH)	(Ω) MAX	A	A
HNR4012BYB-R47M	0.47	0.041	7.20	3.80
HNR4012BYB-R56M	0.56	0.050	6.00	3.20
HNR4012BYB-R68M	0.68	0.055	5.20	3.25
HNR4012BYB-1R0M	1.0	0.059	3.80	3.00
HNR4012BYB-1R5M	1.5	0.075	3.80	2.80
HNR4012BYB-2R2M	2.2	0.090	2.80	2.50
HNR4012BYB-3R3M	3.3	0.130	2.80	2.00
HNR4012BYB-4R7M	4.7	0.175	2.30	1.80
HNR4012BYB-6R8M	6.8	0.230	1.60	1.50
HNR4012BYB-8R2M	8.2	0.273	1.58	1.46
HNR4012BYB-100M	10.0	0.360	1.55	0.85

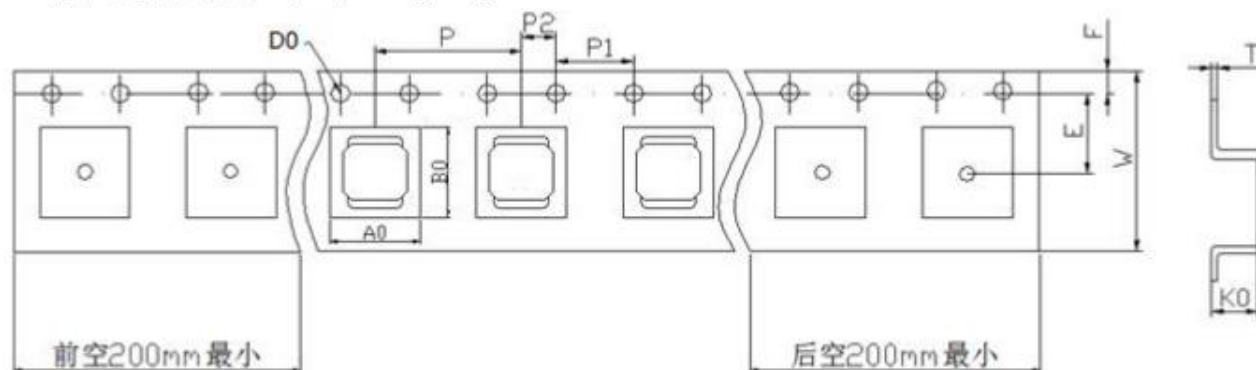
● Test Frequency: 100KHz/0.25V

#### Note

- 公差Tolerance: N:±30%、M:±20%、K:±10%.
- 工作溫度Operating temperature rang: -40 °C to +125°C (Including Self-heating )
- 儲存溫度Storage temperature rang: -40 °C to +125°C
- 額定電流: 指使電感量比初始值下降30%Max或電感器表面溫度上升 $\Delta T \leq 40^\circ\text{C}$ 的電流值 (參考周圍環境溫度 25°C)。The rated DC current is that which cause at 30%Max inductance reduction from the initial value or inductor surface temperature to rise by  $\Delta T \leq 40^\circ\text{C}$ , whichever is smaller (Reference ambient temperature 25°C)。

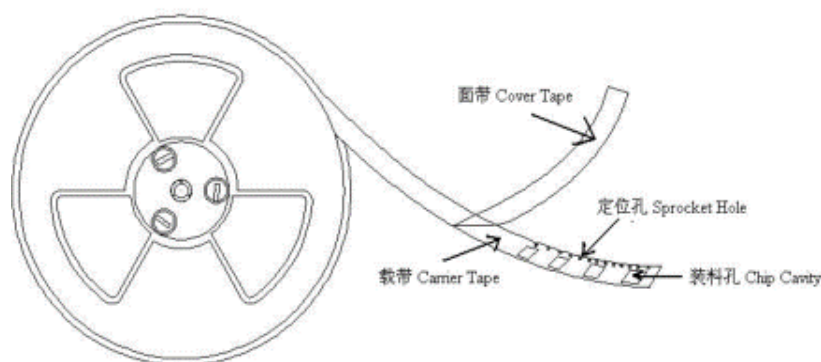

**SMD Power Inductors-HNR4012 Series**
**PACKAGING**

## 1) 載帶包裝示意图 Tape packing diagram



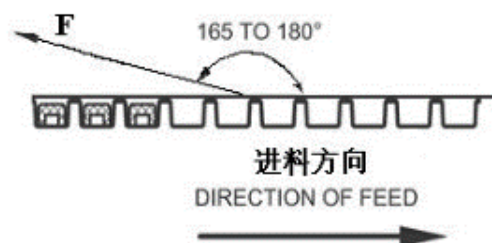
ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	12.00	4.30	4.30	1.40	8.00	5.50	1.75	1.50	4.00	2.00	0.30
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05

## 2) 卷盤包裝示意图 Tape packing diagram



## 3) 剥离强度要求 Peeling required

- ① F 力大小: 20~100g;
- ② 面帶剥离角度: 165°~180°。



## 4) 包装数量 Packing quantity

项目 (Project)	数量 (PCS)	尺寸规格 (Size:mm)
盘(Reel)	4500	13"
内盒 (Inner box)	18000	340mm*340mm*65mm
外箱 (Out box)	54000	360mm*360mm*225mm



## SMD Power Inductors-HNR3012 Series

### Electrical Characteristics

Part Number	Inductance	DC Resistance	Isat	Irms
	(uH)	(Ω) MAX	A	A
HNR3012TYB-R22M	0.24	0.026	9.30	4.20
HNR3012TYB-R33M	0.33	0.032	7.20	4.10
HNR3012TYB-R47M	0.47	0.040	6.80	3.80
HNR3012TYB-R68M	0.68	0.046	5.80	3.10
HNR3012TYB-1R0M	1.00	0.054	4.20	2.70
HNR3012TYB-1R5M	1.50	0.074	3.40	2.50
HNR3012TYB-2R2M	2.20	0.108	2.80	2.05
HNR3012TYB-3R3M	3.30	0.185	2.20	1.50
HNR3012TYB-4R7M	4.70	0.255	2.00	1.15
HNR3012TYB-6R8M	6.80	0.340	1.60	1.10
HNR3012TYB-100M	10.0	0.474	1.20	1.00
HNR3012TYB-150M	15.0	0.740	1.10	0.53
HNR3012TYB-220M	22.0	1.200	0.96	0.40

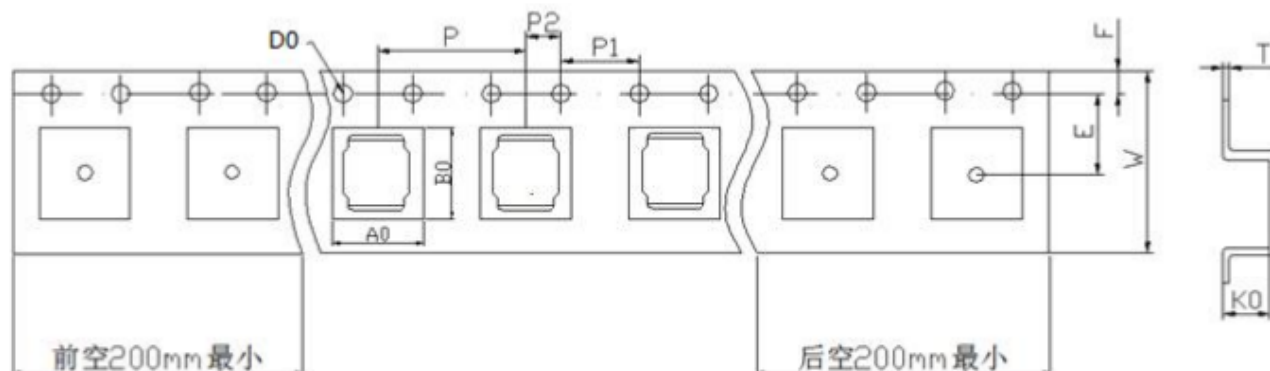
● Test Frequency: 100KHz/0.25V

#### Note

- 公差Tolerance: N:±30%、M:±20%、K:±10%.
- 工作溫度Operating temperature rang: -40 °C to +125°C (Including Self-heating )
- 儲存溫度Storage temperature rang: -40 °C to +125°C
- 額定電流: 指使電感量比初始值下降30%Max或電感器表面溫度上升 $\Delta T \leq 40^{\circ}\text{C}$ 的電流值 (參考周圍環境溫度 $25^{\circ}\text{C}$ )。The rated DC current is that which cause at 30%Max inductance reduction from the initial value or inductor surface temperature to rise by  $\Delta T \leq 40^{\circ}\text{C}$ , whichever is smaller (Reference ambient temperature  $25^{\circ}\text{C}$ )。

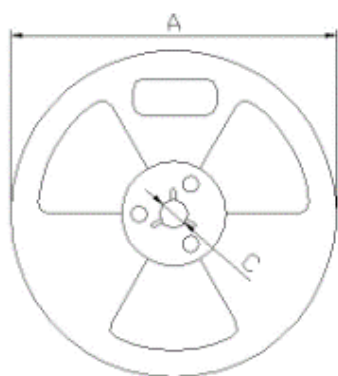

**SMD Power Inductors-HNR3012 Series**
**PACKAGING**

## 1) 載帶包裝示意图 Tape packing diagram



ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	8.00	3.20	3.20	1.32	4.00	3.50	1.75	1.50	4.00	2.00	0.30
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

## 2) 卷盤包裝示意图 Tape packing diagram



A	180±0.5
B	100±0.5
C	13.5±0.5
W	8.5±0.5

**包裝數量 Packing quantity**

項目 (Project)	數量 (PCS)	尺寸規格 (Size:mm)
盤(Reel)	2000	7"
內盒 (Inner box)	20K	185mm*185mm*120mm
外箱 (Out box)	120K	395mm*385mm*205mm



## SMD Power Inductors-HNR3015 Series

### Electrical Characteristics

Part Number	Inductance	DC Resistance	Isat	Irms
	(uH)	(Ω) MAX	A	A
HNR3015TYB-R22M	0.22	0.019	8.80	5.00
HNR3015TYB-R24M	0.24	0.019	8.60	5.00
HNR3015TYB-R33M	0.33	0.021	8.00	4.90
HNR3015TYB-R47M	0.47	0.026	7.60	4.60
HNR3015TYB-R68M	0.68	0.037	7.00	3.80
HNR3015TYB-1R0M	1.00	0.048	5.80	3.30
HNR3015TYB-1R5M	1.50	0.072	4.60	2.20
HNR3015TYB-2R2M	2.20	0.095	3.70	2.20
HNR3015TYB-3R3M	3.30	0.150	3.40	2.00
HNR3015TYB-4R7M	4.70	0.185	2.50	1.70
HNR3015TYB-6R8M	6.80	0.320	2.00	1.20
HNR3015TYB-100M	10.0	0.450	1.60	1.10
HNR3015TYB-150M	15.0	0.610	1.45	1.10
HNR3015TYB-220M	22.0	0.910	1.00	0.56

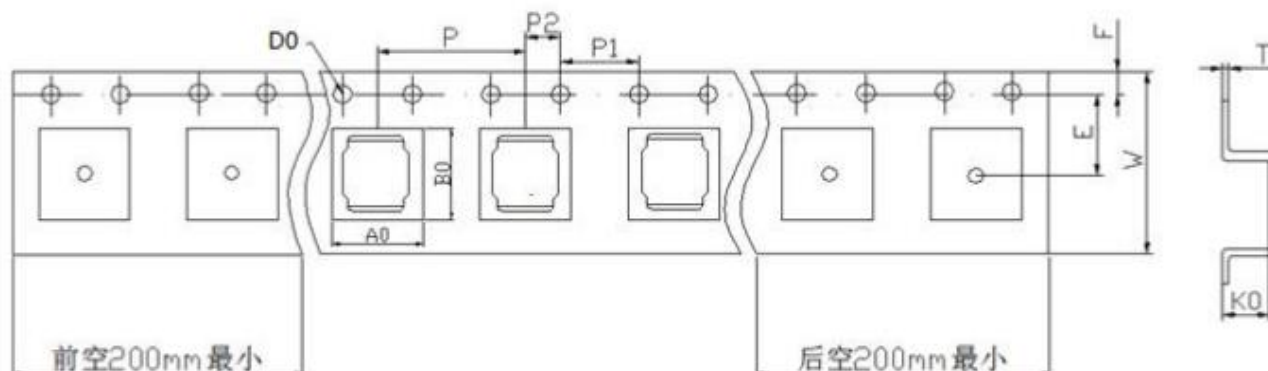
● Test Frequency: 100KHz/0.25V

#### Note

- 公差 Tolerance: N: ±30%、M: ±20%、K: ±10%.
- 工作溫度 Operating temperature rang: -40 °C to +125 °C (Including Self-heating )
- 儲存溫度 Storage temperature rang: -40 °C to +125 °C
- 額定電流: 指使電感量比初始值下降30%Max或電感器表面溫度上升 $\Delta T \leq 40^{\circ}\text{C}$ 的電流值 (參考周圍環境溫度 25 °C)。The rated DC current is that which cause at 30%Max inductance reduction from the initial value or inductor surface temperature to rise by  $\Delta T \leq 40^{\circ}\text{C}$ , whichever is smaller ( Reference ambient temperature 25 °C)。

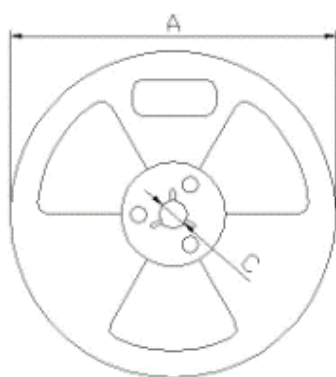

**SMD Power Inductors-HNR3015 Series**
**PACKAGING**

## 1) 載帶包裝示意图 Tape packing diagram



ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	8.00	3.2	3.2	1.8	4.00	3.50	1.75	1.50	4.00	2.00	0.30
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

## 2) 卷盤包裝示意图 Tape packing diagram



A	180±0.5
B	100±0.5
C	13.5±0.5
W	8.5±0.5

**包裝數量 Packing quantity**

項目 (Project)	數量 (PCS)	尺寸規格 (Size:mm)
盤(Reel)	2000	7"
內盒 (Inner box)	20K	185mm*185mm*120mm
外箱 (Out box)	120K	395mm*385mm*205mm



## SMD Power Inductors-HNR4020 Series

### Electrical Characteristics

Part Number	Inductance	DC Resistance	Isat	Irms
	(uH)	(Ω) MAX	A	A
HNR4020TYB-R24M	0.24	0.017	14.00	6.00
HNR4020TYB-R33M	0.33	0.020	13.00	5.90
HNR4020TYB-R47M	0.47	0.022	11.00	5.90
HNR4020TYB-R68M	0.68	0.025	9.00	5.80
HNR4020TYB-1R0M	1.00	0.028	8.70	5.80
HNR4020TYB-1R5M	1.50	0.038	7.70	5.20
HNR4020TYB-2R2M	2.20	0.056	6.00	4.00
HNR4020TYB-3R3M	3.30	0.088	4.70	3.40
HNR4020TYB-4R7M	4.70	0.115	4.00	2.85
HNR4020TYB-6R8M	6.8	0.160	3.00	2.40
HNR4020TYB-8R2M	8.2	0.220	2.90	2.10
HNR4020TYB-100M	10.0	0.220	2.80	2.00
HNR4020TYB-150M	15.0	0.400	2.10	1.00
HNR4020TYB-220M	22.0	0.545	1.30	0.95
HNR4020TYB-330M	33.0	0.850	1.20	0.70
HNR4020TYB-470M	47.0	1.200	1.10	0.56

● Test Frequency: 100KHz/0.25V

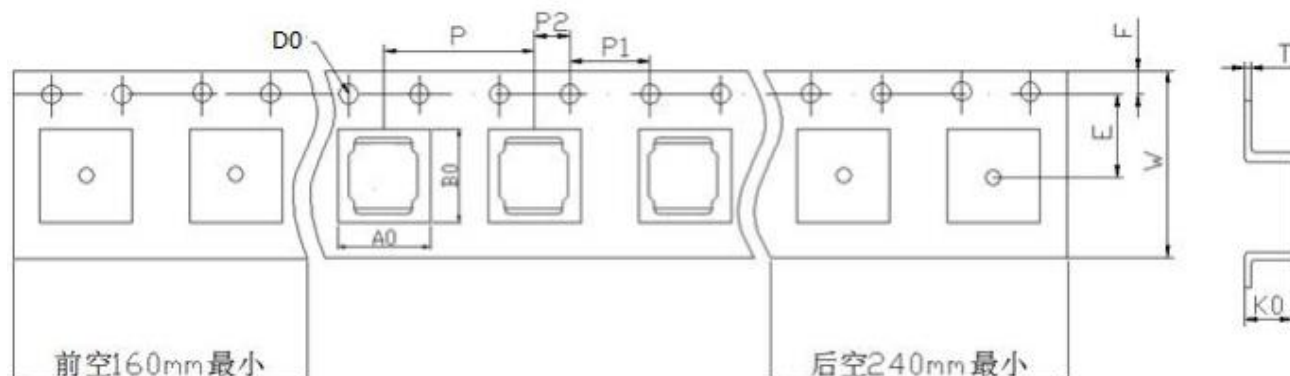
#### Note

- 公差Tolerance: N:±30%、M:±20%、K:±10%.
- 工作溫度Operating temperature rang: -40 °C to +125°C (Including Self-heating )
- 儲存溫度Storage temperature rang: -40 °C to +125°C
- 額定電流: 指使電感量比初始值下降30%Max或電感器表面溫度上升 $\Delta T \leq 40^{\circ}\text{C}$ 的電流值 (參考周圍環境溫度 $25^{\circ}\text{C}$ )。The rated DC current is that which cause at 30%Max inductance reduction from the initial value or inductor surface temperature to rise by  $\Delta T \leq 40^{\circ}\text{C}$ , whichever is smaller ( Reference ambient temperature  $25^{\circ}\text{C}$ )。



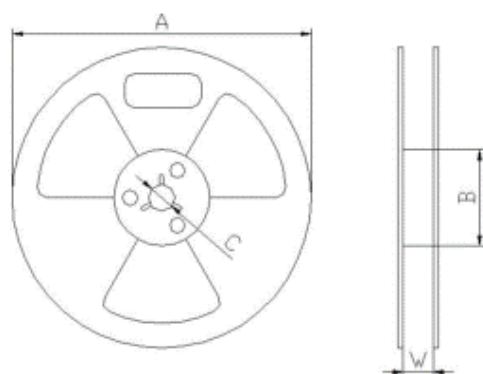

**SMD Power Inductors-HNR4020 Series**
**PACKAGING**

载带包装示意图 Tape packing diagram



ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	12.00	4.30	4.30	2.20	8.00	5.50	1.75	1.50	4.00	2.00	0.30
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

卷盘包装示意图 Tape packing diagram



A	330±0.5
B	100±0.5
C	13.5±0.5
W	12.5±0.5

包装数量 Packing quantity

项目 (Project)	数量 (PCS)	尺寸规格 (Size:mm)
盘(Reel)	3000	13"
内盒 (Inner box)	12000	340mm*340mm*65mm
外箱 (Out box)	36000	360mm*360mm*225mm