

# 深圳市方磁電子有限公司

SHENZHEN FOUNDS ELECTRONICS CO., LTD

## 【物料承認書】

### APPROVAL SHEET

客戶 (Customer) : \_\_\_\_\_

產品名稱 (Description) : 功率電感

客戶料號 (Cus P/N) : \_\_\_\_\_

料號 (Part NO) : FSNR3025-Series

日期 (Date) : 2018.09.27

版本 (Version) : A0

核准 APPROVED BY	審核 CHECKED BY	製作 DRAWN BY
TopoCheng	VincentShang	AbbyShi

Please sign back after confirmation:

Client signature:  Qualified  Unqualified

批准 APPROVAL	審核 CHECKED	檢驗 CONFORM

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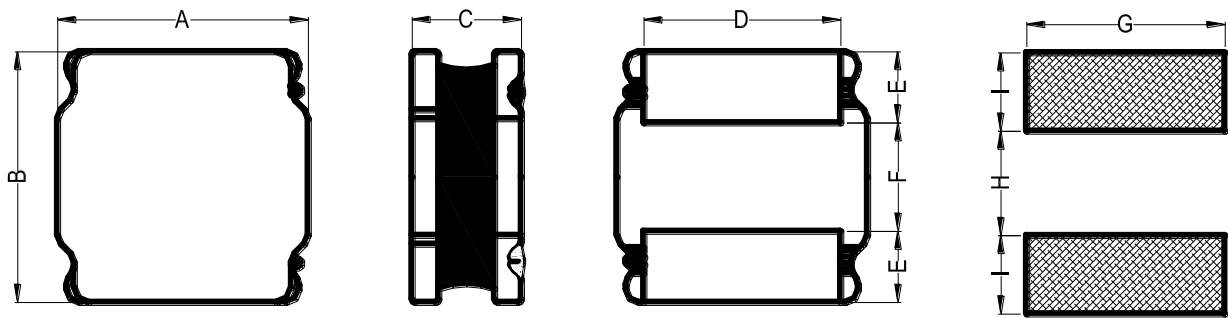
<http://www.ele-founds.com>



**【Version of Changed Record】**

Rev.	Effective Date	Changed Contents	Change Reasons	Approved By
A0	2018.09.27	New release	/	TopoCheng

## 1. Shape and Dimension ( Unit:mm )



A	B	C	D	E	F	G	H	I
3.0 ± 0.2	3.0± 0.2	2.5Max	2.5±0.2	0.75±0.2	1.5±0.2	2.7 Ref	1.5 Ref	0.8 Ref

## 2. Electronic Characteristics List

Part Number	Inductance (uH)	Tolerance (±%)	DCR(mΩ) ±30%	Isat (A)	Irise (A)	Test Condition
FSNR3025-1R0N	1.0	30	43	4.00	2.00	100KHz /0.25V
FSNR3025-1R2N	1.2	30	47	3.80	1.95	100KHz /0.25V
FSNR3025-1R5N	1.5	30	47	3.90	2.00	100KHz /0.25V
FSNR3025-2R2N	2.2	30	70	3.20	1.85	100KHz /0.25V
FSNR3025-3R3M	3.3	20	92	2.70	1.50	100KHz /0.25V
FSNR3025-4R7M	4.7	20	120	2.20	1.20	100KHz /0.25V
FSNR3025-6R8M	6.8	20	160	2.00	1.00	100KHz /0.25V
FSNR3025-100M	10	20	240	1.40	0.93	100KHz /0.25V
FSNR3025-220M	22	20	530	1.00	0.55	100KHz /0.25V
FSNR3025-470M	47	20	1000	0.70	0.40	100KHz /0.25V
FSNR3025-151M	150	20	4000	0.40	0.16	100 KHz /0.25V

### Isat (A) :

DC Saturation Current that will cause initial inductance to drop approximately 30% max.

### Irise(A)

DC Current that will cause an approximate  $\Delta T$  of 40 °C

### Measuring Instrument :

L:HIOKI3532-50

DCR:HIOKI 3540

Isat / Irise:HP4284A+42841

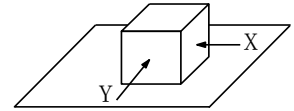
### 3. General Characteristics

3-1. Storage Temperature range :  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$

3-2. Operating temperature range:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  (Including coil's self temperature rise)

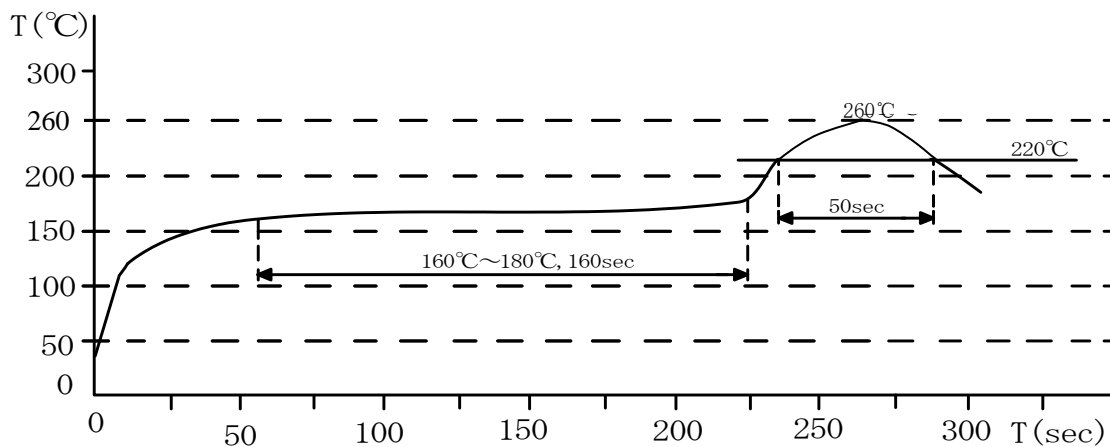
3-3. External appearance : No external defects can be found in the visual inspection.

3-4. Electrode strength : No electrode detachment should be found when the device is pushed in two directions of X and Y with the force of 10.0N for  $10 \pm 2$  seconds after soldering between copper plate and the electrodes.  
(Refer to figure at right)



3-5. Vibration test : Inductance deviation is within  $\pm 10.0\%$  after 1 hour sweeping vibration in each three directions, namely, forward and backward, up and down, right and left. The frequency is  $10 \sim 55 \sim 10\text{Hz}$  and the amplitude of 1 minute cycle is 1.5mm PP.

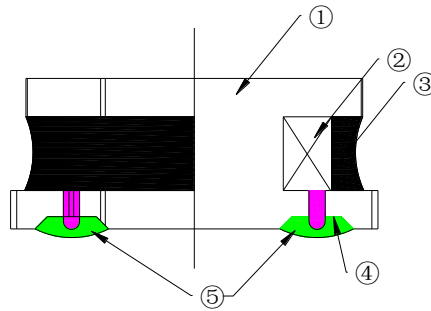
3-6. Recommended reflow condition:



3-7. Humidity test : Inductance deviation is within  $\pm 5.0\%$  after  $96 \pm 4$  hours test under the condition of relative humidity of  $90 \sim 95\%$  and temperature of  $60 \pm 2^{\circ}\text{C}$ , and 1 hour storage under room ambient conditions after the device is wiped with dry cloth.



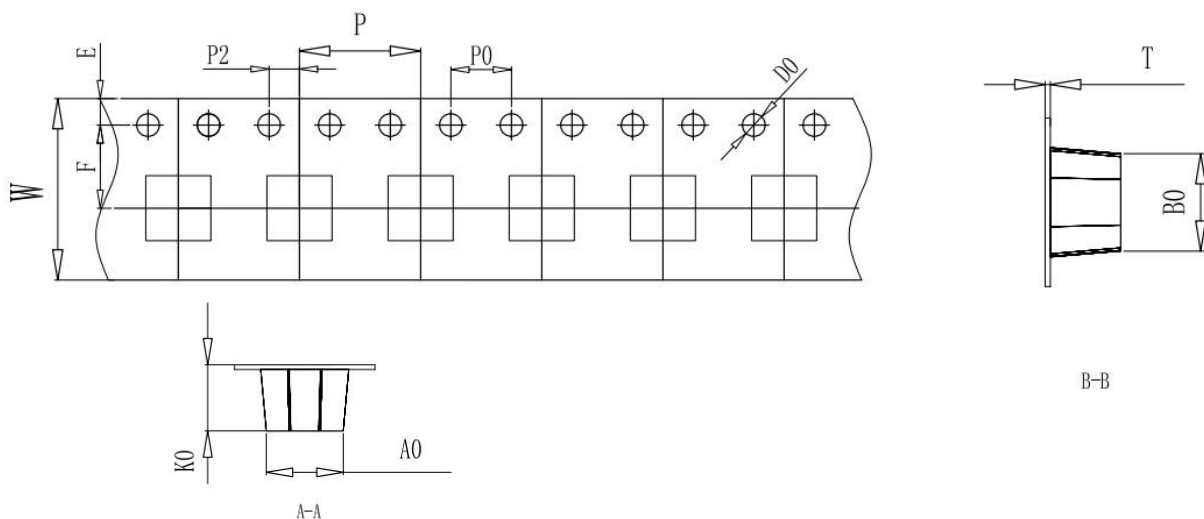
#### 4. Construction and materials



No.	Part name	Material	Ceaiya P/N
①	Drum Core	Ni-Zn Ferrite Core	LB/YN
②	Wire	Polyurethane enameled copper wire	YLSL
③	Adhesive	Epoxy Resin Magnetic Powder	
④	Plating Electrodes	Plating: Ag 10-20 $\mu\text{m}$ Ni 1-3 $\mu\text{m}$ Sn 3-7 $\mu\text{m}$	
⑤	Outer Electrodes	Top surface solder coating Sn99%、 Ag0.3%、Cu0.7%	YX

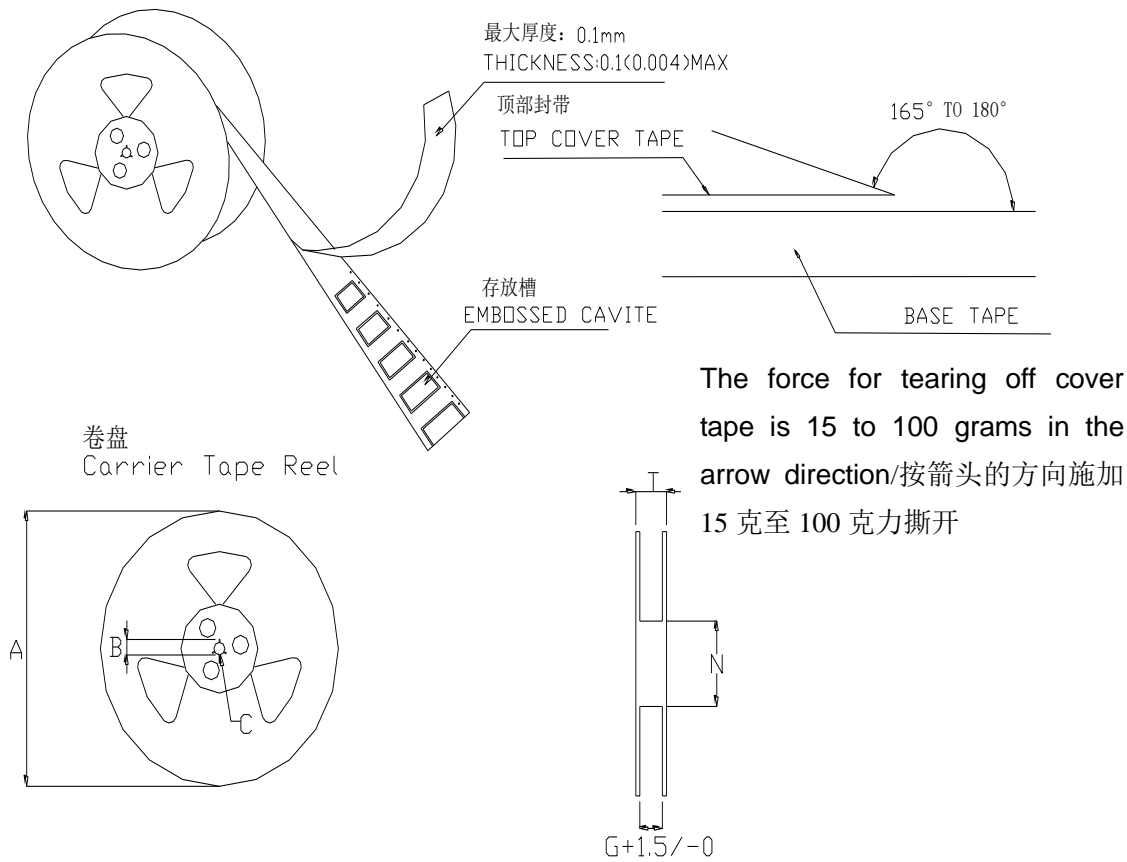
#### 5.Packaging and Marking:

5-1.Carrier Tape Dimensions:



TEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	12.00	3.3	3.3	2.50	8.00	5.50	1.75	1.50	4.00	2.00	0.3
TOLE	$\pm 0.3$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	+0.1	$\pm 0.1$	$\pm 0.1$	$\pm 0.05$

### 5-2. Reel Dimensions:

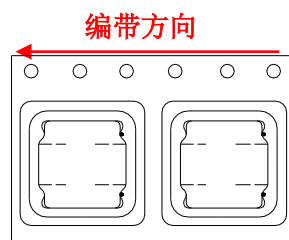


Type	A	B	C	G	N	T
12mm	330	21±0.8	13±0.4	12.4	100	16.4

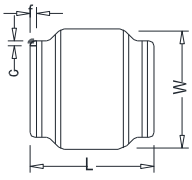
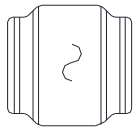
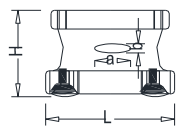
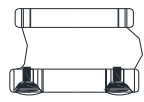
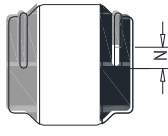
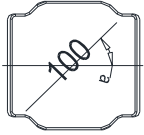
### 6. PACKAGE SPECIFICATION:

3KPCS/ Reel    9KPCS/ Inner Box    27KPCS/ Outer Box

编带方向 ，如右图所示 ( 图中红色虚线部分表示焊盘位置 )



### Visual Inspection Standard of Product

No.	Defect Item	Figure	Rejection Identification	Acceptance
1	Core Defect		The defect length(c or f)more than L/6 or W/6 , NG	AQL=0.65
2	Core Crack		Visual cracks , NG	AQL=0.65
3	Starvation		(1)Resin starved length a more than L/2, NG (2)When L>2mm,b>H/2, NG (3)When L≤2mm, b don't control	AQL=0.65
4	Excessive glue		The length, width or height of product beyond specified value, NG	AQL=0.65
5	Cold Solder		(1)For CR2520** Series , cold solder N>0.5mm,NG (2)For other series, cold solder N>1mm,NG	AQL=0.65
6	Marking Defect		The marking angle a>45° , NG	AQL=0.65

