

规格书编号

SPEC NO :

# 产品规格书

# SPECIFICATION

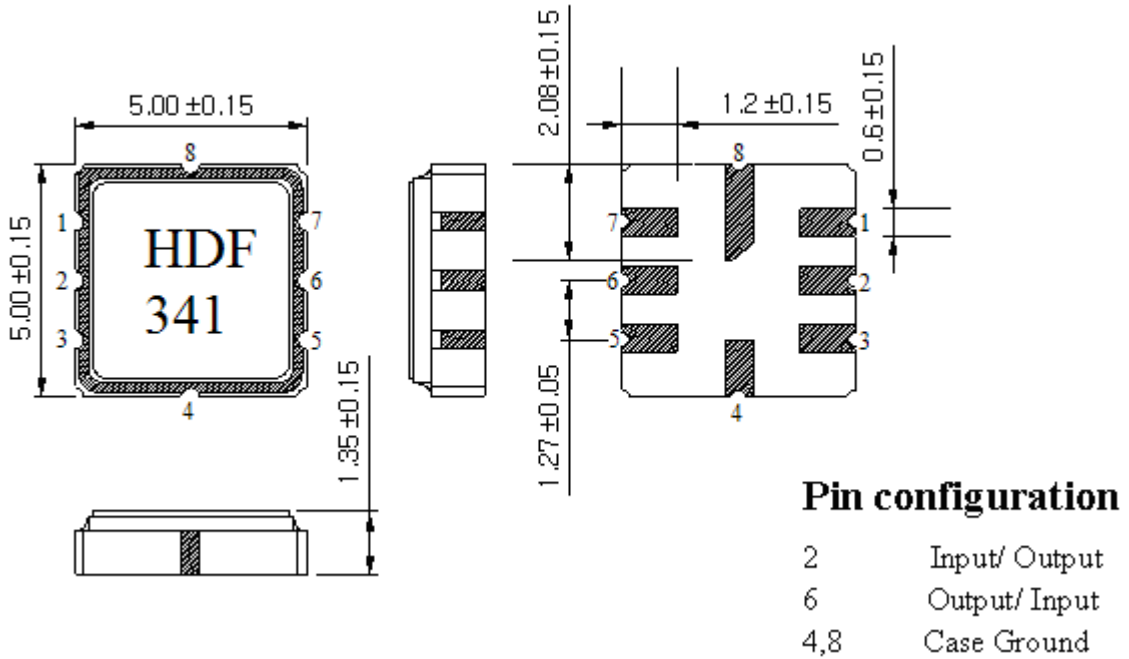
CUSTOMER 客户: \_\_\_\_\_  
PRODUCT 产品: \_\_\_\_\_ SAW FILTER \_\_\_\_\_  
MODEL NO 型号: \_\_\_\_\_ HDF319.5M-S3 \_\_\_\_\_  
MARKING 印字: \_\_\_\_\_ HDF341 \_\_\_\_\_  
PREPARED 编制: \_\_\_\_\_ CHECKED 审核: \_\_\_\_\_  
APPROVED 批准: \_\_\_\_\_ D A T E 日期: \_\_\_\_\_ 2010-12-23 \_\_\_\_\_

客户确认 CUSTOMER RECEIVED:		
审核 CHECKED	批准 APPROVED	日期 DATE

无锡市好达电子有限公司  
Shoulder Electronics Limited



**1.Package**



**Marking: HDF341**

HD: Brand  
 F: Filter  
 341: No.

**2. Performance**

**2.1 Absolute Maximum Ratings**

Rating	Value	Units
Input Power Level	10	dBm
Storage Temperature	-40 to +85	°C
DC Voltage	12	VDC

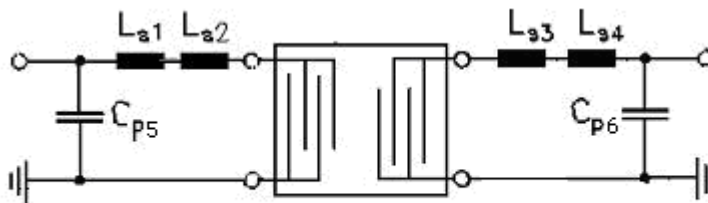
## 2.2 Electrical Characteristics

Characteristic		Sym	Notes	Min	Typical	Max	Units
Center frequency	Absolute frequency	Fc	1.2	319.42	319.500	319.58	MHz
	Tolerance from nominal	$\Delta f_c$				$\pm 80$	KHz
Insertion Loss		IL	1		3.0	4.5	dB
3dB Bandwidth		BW3	1.2	500	600	800	KHz
Passband Ripple ( $F_c \pm 300$ KHz)					0.5	1.0	dB
Rejection	At $f_o-21.4$ MHz (Image)		1	40	50		dB
	At $f_o-10.7$ MHz (LO)			16	40		dB
	Ultimate				80		dB
Temperature characteristics	Operating case temp.	Tc	3.4	-40		+85	$^{\circ}\text{C}$
	Turnover temp.	To		25	40	55	$^{\circ}\text{C}$
	Turnover Frequency	$f_o$			$f_c$		MHz
	Fre.temp.coefficient	FTC			0.032		ppm/ $^{\circ}\text{C}$
Frequency aging			5		$< \pm 10$		ppm/y

**Note:**

1. Typical test circuit is shown as below.
2. Passband and reject bands are specified in reference to  $f_c$ .
3. The turnover temperature,  $T_o$ , is the temperature at the maximum frequency,  $F_o$ .
4. The nominal frequency at any case temperature,  $T_c$ , inside the operating temperature range may be calculated from:  $f=f_o[1-FTC(T_o-T_c)^2]$ .
5. Typical aging is for 10 years.

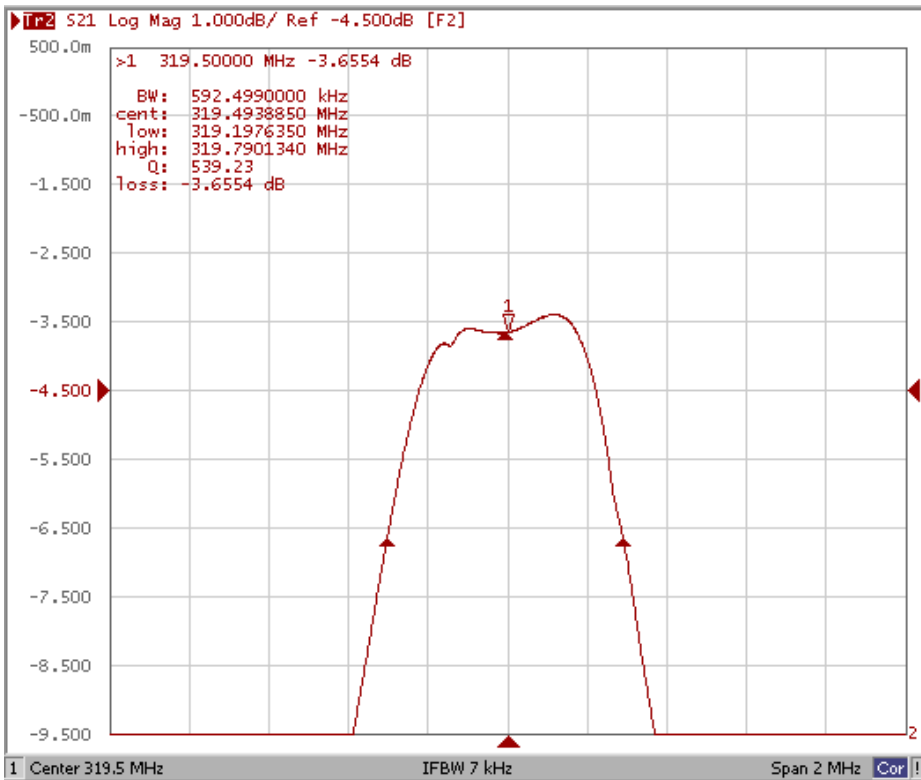
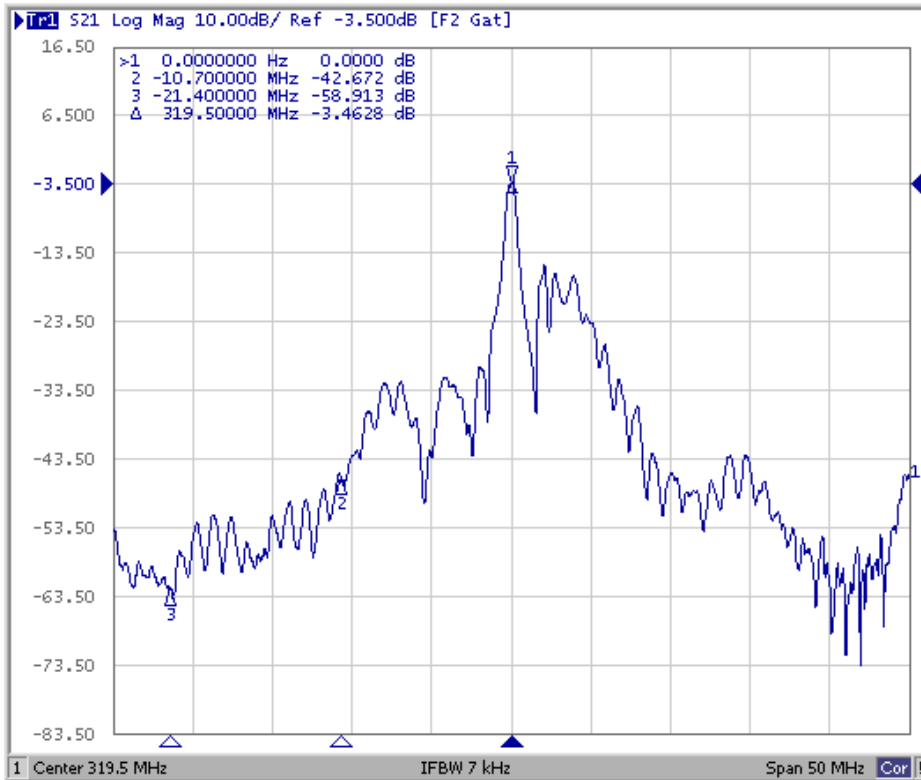
### 3. Matching network to 50 $\Omega$ (element values depend on pcb layout and equivalent circuit)



$$C_{p5}=C_{p6}=15\text{pF}, L_{s1}=L_{s4}=8.2\text{nH}^*, L_{s2}=L_{s3}=56\text{nH}^*,$$

$$L_{s1234}=6 \text{ turns of } 0.51\text{mm insulated Copper, } 2.5\text{mm ID.}$$

### 4. Typical Frequency Response



## 5. Packing

### 5.1 Dimensions

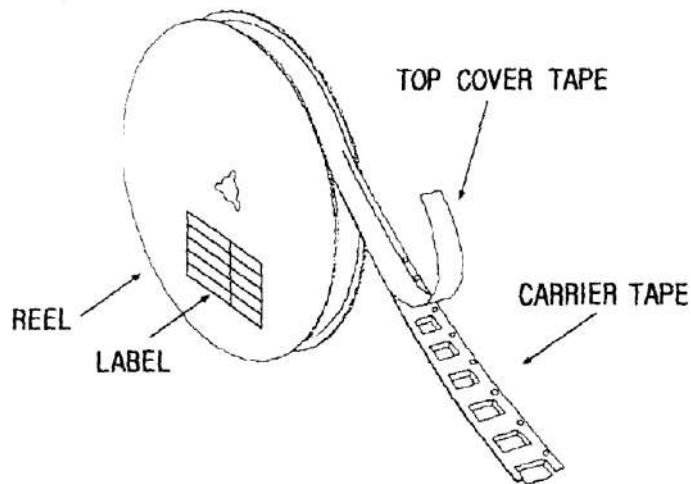
- (1) Carrier Tape: Figure 1
- (2) Reel: Figure 2
- (3) The product shall be packed properly not to be damaged during transportation and storage.

### 5.2 Reeling Quantity

- 1000 pcs/reel 7''  
3000 pcs/reel 13''

### 5.3 Taping Structure

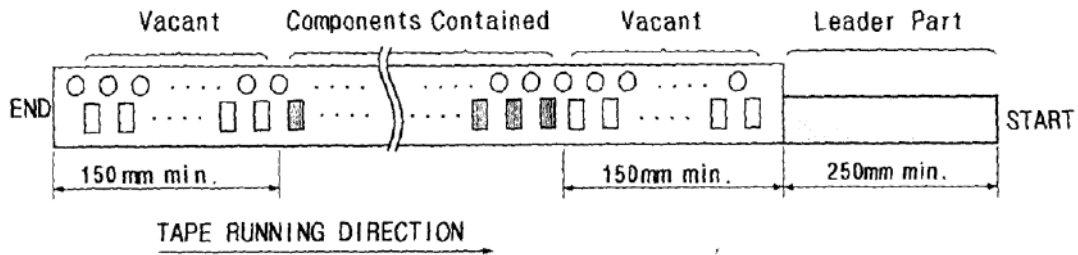
- (1) The tape shall be wound around the reel in the direction shown below.



- (2) Label

Device Name	
User Product Name	
Quantity	
Lot No.	

- (3) Leader part and vacant position specifications.

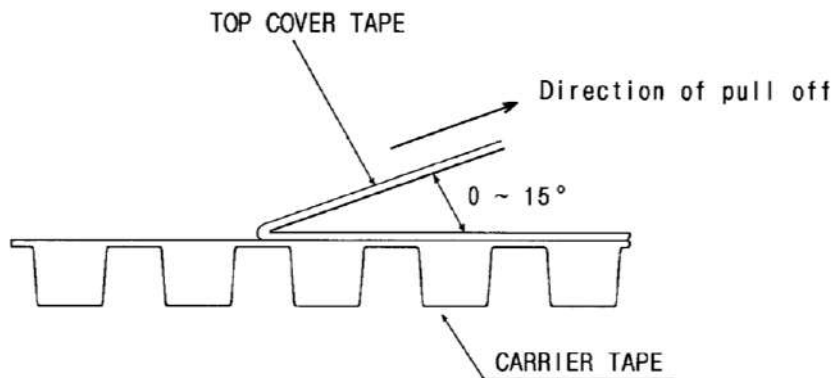


## 6. TAPE SPECIFICATIONS

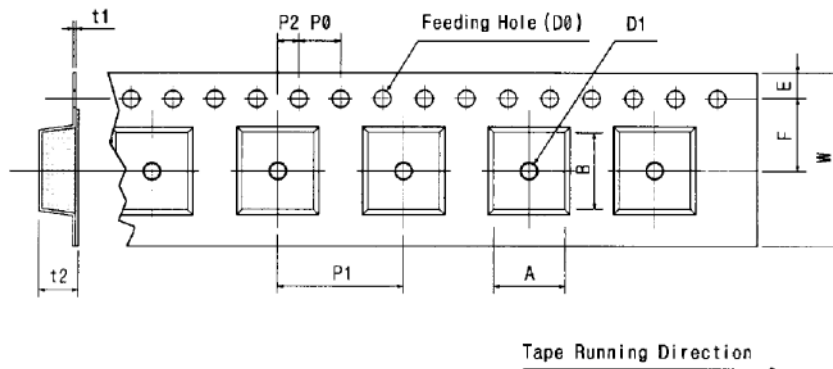
6.1 Tensile Strength of Carrier Tape: 4.4N/mm width

6.2 Top Cover Tape Adhesion (See the below figure)

- (1) pull off angle: 0~15°
- (2) speed: 300mm/min.
- (3) force: 20~70g



[Figure 1] Carrier Tape Dimensions

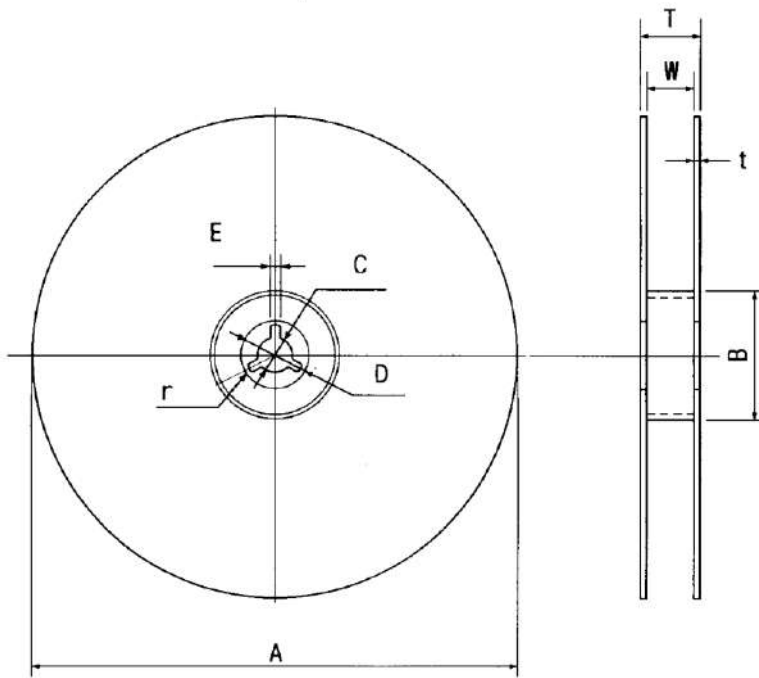


[Unit:mm]

W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0	5.5	1.75	4.0	8.0	2.0	Ø1.5	Ø1.0	0.3	2.10	6.40	5.20
±0.3	±0.05	±0.1	±0.1	±0.1	±0.05	±0.1	±0.25	±0.05	±0.1	±0.1	±0.1

[Figure 2]

[Unit:mm]



A	B	C	D	E	W	t	r
Ø330	Ø100	Ø13	Ø21	2	13	3	1.0
±1.0	±0.5	±0.5	±0.8	±0.5	±0.3	max.	max.