

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: _____ HDF869AN2-S6 _____

MARKING 印 字: _____ HDF 681K _____

PREPARED 编 制: _____ CHECKED 审 核: _____

APPROVED 批 准: _____ D A T E 日 期: _____ 2016-7-22 _____

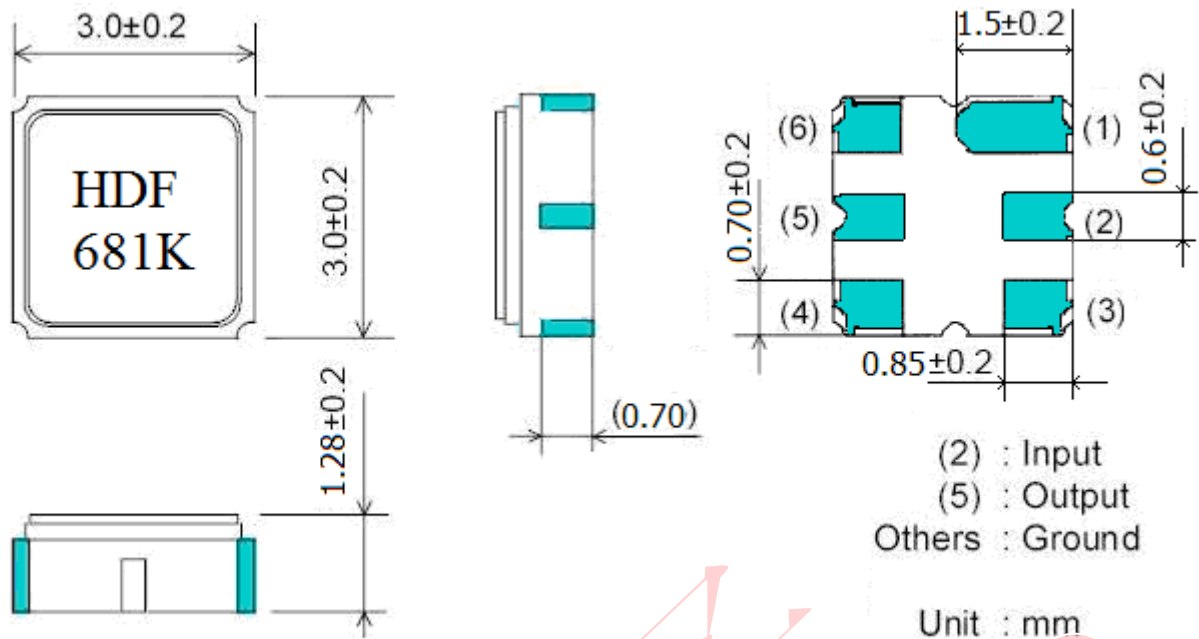
客户确认 CUSTOMER RECEIVED:		
审核 CHECKED	批准 APPROVED	日期 DATE

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

更改历史记录 History Record

更改日期 Date	规格书编号 Spec. No.	产品型号 Part No.	客户产品型号 Customer No.	更改内容描述 Modify Content	备注 Remark
2016-05-25	SP00	HDF869AN2-S 6		New Preliminary SPEC.	
2016-06-03	SP01	HDF869AN2-S 6		Modify power requirements.	
2016-7-22	SP02	HDF869AN2-S 6		New formal SPEC.	

1. Package Dimension



2. Performance

2.1 Maximum Rating

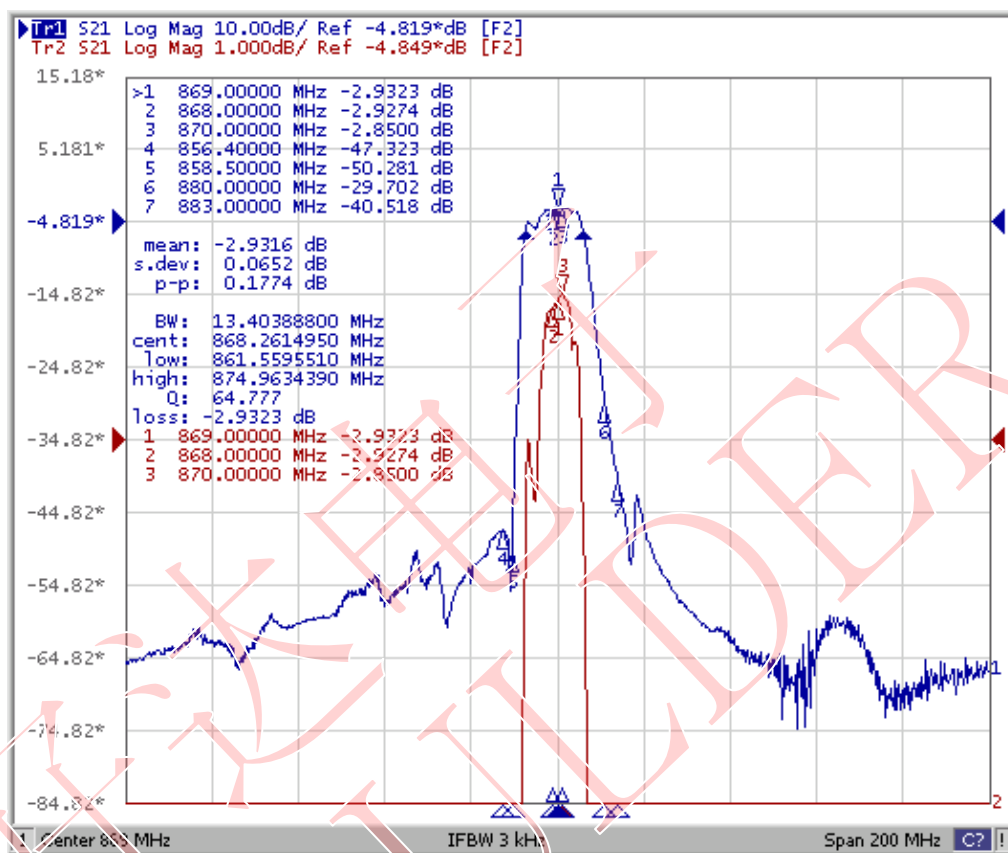
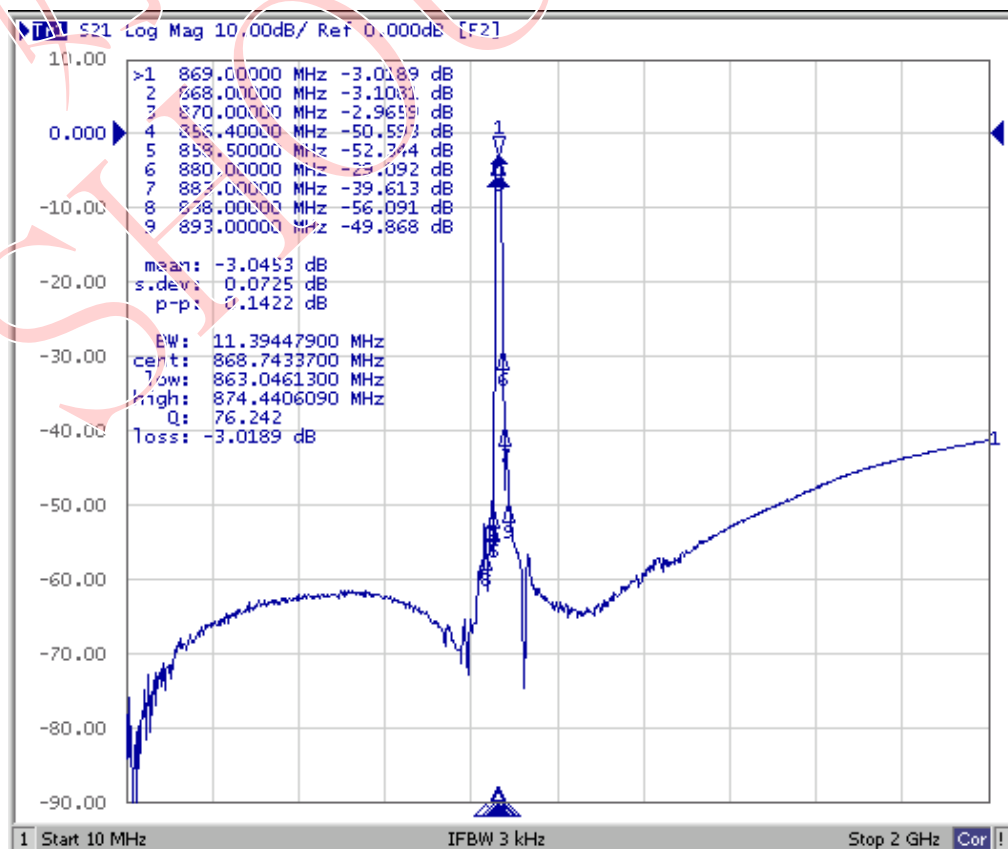
Items	Rating	unit	
Source power 868~870MHz	18	dBm	Duty cycle 1:10, -40~85℃
Operating Temperature Range	-45 ~ +85	℃	
Storage Temperature Range	-45 ~ +85	℃	

2.2 Electronic Characteristics

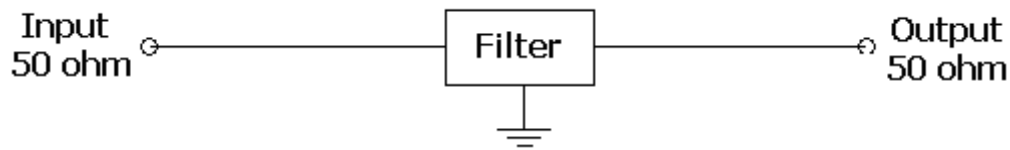
Temperature range for specification: T = 25 ℃

	Unit	Minimum	Typical	Maximum
Center Frequency Fc	MHz	-	869	-
Insertion Loss (In 868~870 MHz)	dB	-	2.8	3.0
Amplitude Rippie (In 868~870 MHz)	dB	-	0.3	0.7
Attenuation				
10~838 MHz		40	55	
838~856.4 MHz		24	47	
856.4~858.5 MHz		20	47	
880~883 MHz		23	30	
883~893 MHz		29	40	
893~1200 MHz		45	48	
1200~2000 MHz		31	40	
Input/output Impedance	Ohms		50	

2.3 Frequency Characteristics



3. Test Circuit



4. ENVIRONMENTAL CHARACTERISTICS

4-1 High temperature exposure(高温存放)

Subject the device to +85°C for 16 hours. Then release the filter into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 2-2.

4-2 Low temperature exposure(低温存放)

Subject the device to -40°C for 16 hours. Then release the device into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 2-2.

4-3 Temperature cycling (温度循环)

Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of +85°C for 30 Minutes. Then release the device into the room conditions for 24 hours prior to the measurement. It shall meet the specifications in 2-2.

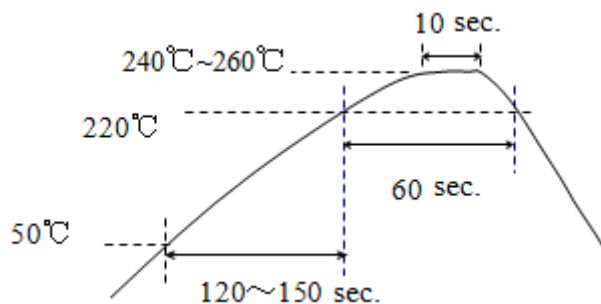
4-4 Resistance to solder heat (耐焊接热)

- 1、immerge the solder bath at 260°C for 10 sec. (浸入 260°C 焊锡槽 10 秒)
- 2、the iron at 370°C for 3 sec (烙铁 370°C 3 秒)

4-5 Solderability (可焊性)

Subject the device terminals into the solder bath at 245°C ±5°C for 5s, More than 95% area of the terminals must be covered with new solder. It shall meet the specifications in 2-2. (浸没在温度 245°C+5/-0°C 的焊锡中, 持续 3 秒, 焊锡覆盖面积大于 95%)

4-6 Reflow soldering (回流焊)



The specimen shall be passed through the reflow furnace with the condition shown in the above profile for 1 time.

The specimen shall be stored at standard atmospheric conditions for 1h, after which the measurement shall be made. Test board shall be 1.6 mm thick. Base material shall be glass fabric base epoxy resin.

4-7 Mechanical shock (机械冲击)

Drop the device randomly onto the concrete floor from the height of 1m 3 times. the device shall fulfill the specifications in 2-2.

4-8 Vibration (振动)

Subject the device to the vibration for 1 hour each in x,y and z axes with the amplitude of 1.5 mm at 10 to 55 Hz. The device shall fulfill the specifications in 2-2.

5. REMARK

5.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

5.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

5.3 Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.

6. Packing

6.1 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.

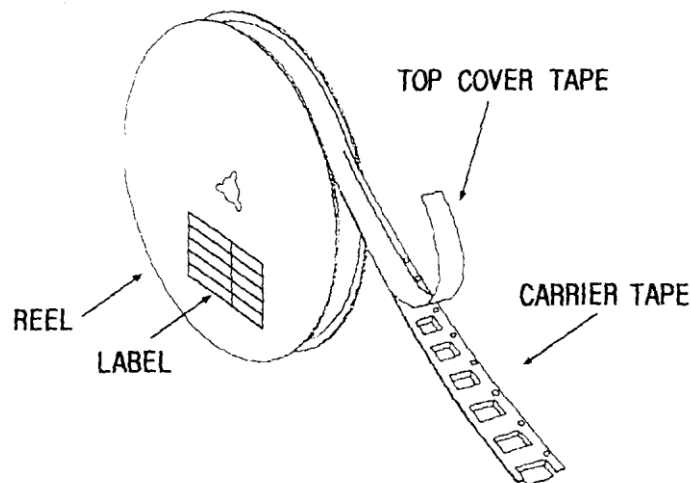
6.2 Reeling Quantity

1000 pcs/reel 7"

3000 pcs/reel 13"

6.3 Taping Structure

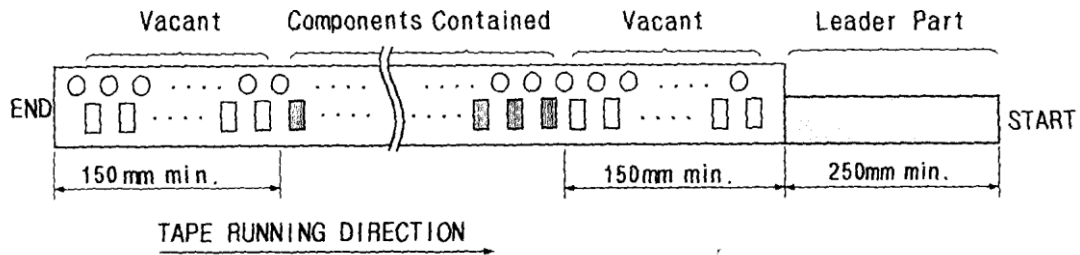
(1) The tape shall be wound around the reel in the direction shown below.



(2) Label

Device Name	
User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.



7. TAPE SPECIFICATIONS

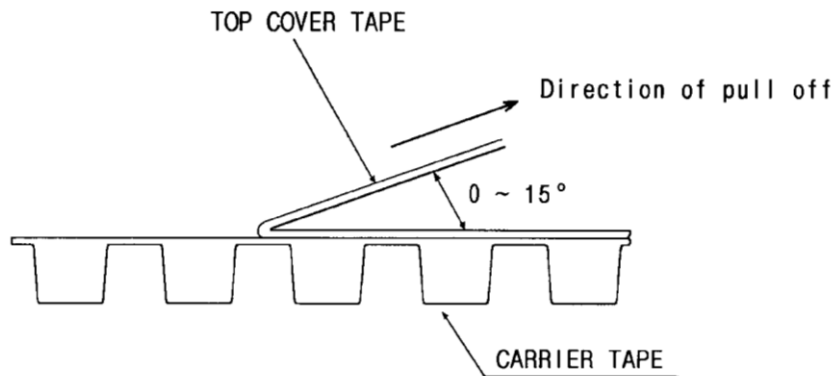
7.1 Tensile Strength of Carrier Tape: 4.4N/mm width

7.2 Top Cover Tape Adhesion (See the below figure)

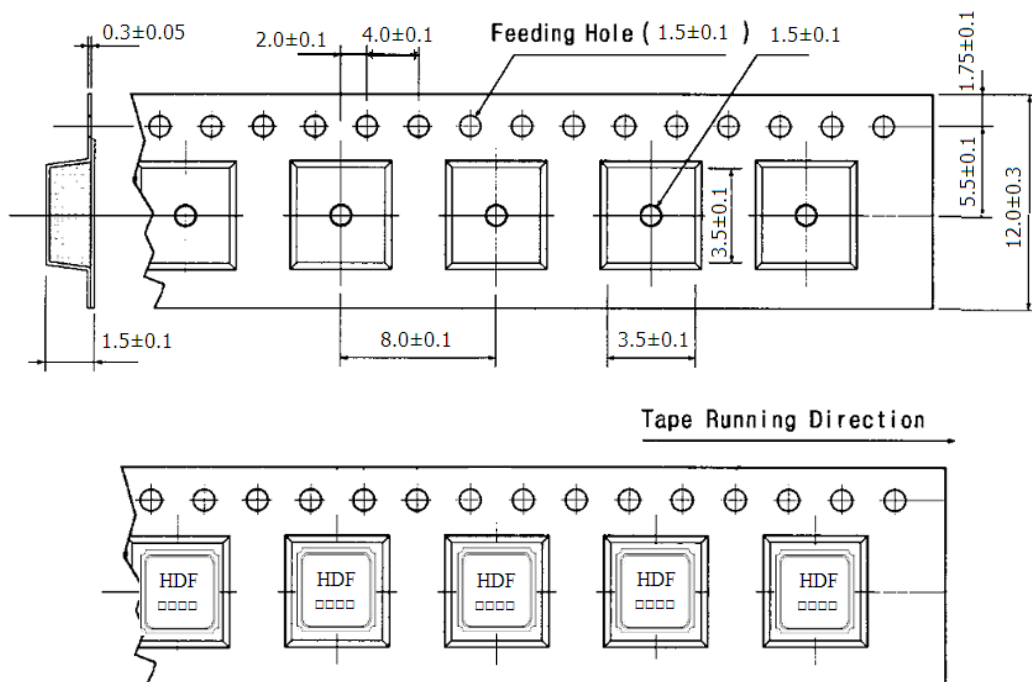
(1) pull off angle: $0 \sim 15^\circ$

(2) speed: 300mm/min.

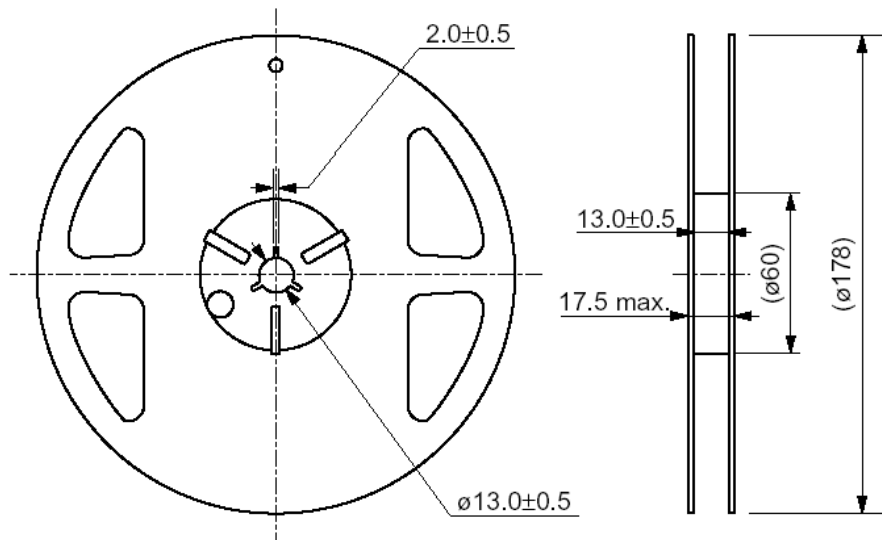
(3) force: 20~70g



[Figure 1] Carrier Tape Dimensions and Direction



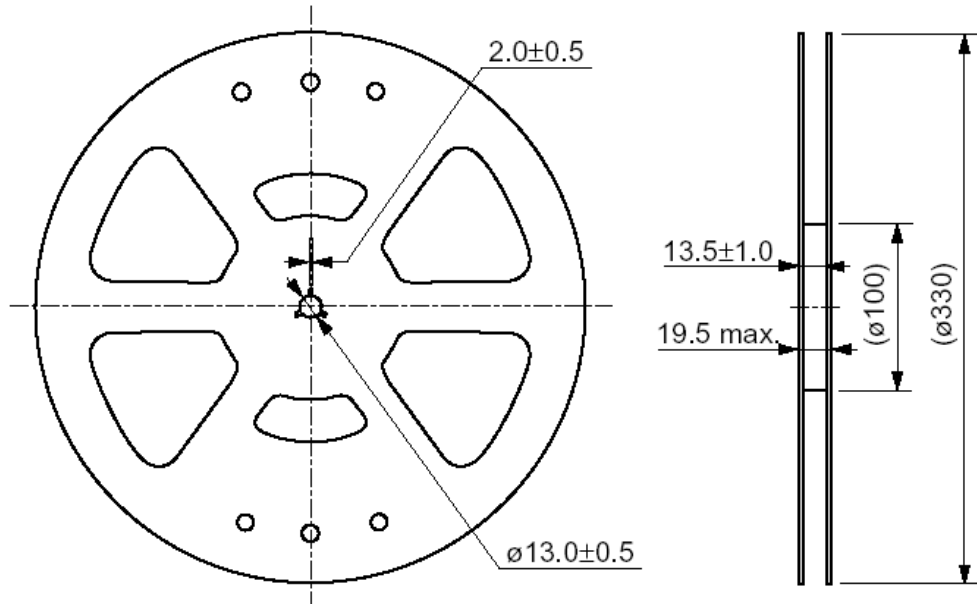
[Figure 2] 1000reel



$\phi 178$ Reel Dimension

(in mm)

3000reel



$\phi 330$ Reel Dimension

(in mm)