

规格书编号

SPEC NO: HDFB05RSBB5SP06

产品规格书

SPECIFICATION

CUSTOMER 客户: _____

PRODUCT 产品: _____ SAW FILTER _____

MODEL NO 型号: _____ HDFB05RSB-B5 _____

MARKING 印字: _____ B082 _____

PREPARED 编制: _____ CHECKED 审核: _____

APPROVED 批准: _____ D A T E 日期: _____ 2016-12-1 _____

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

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Country of origin: China

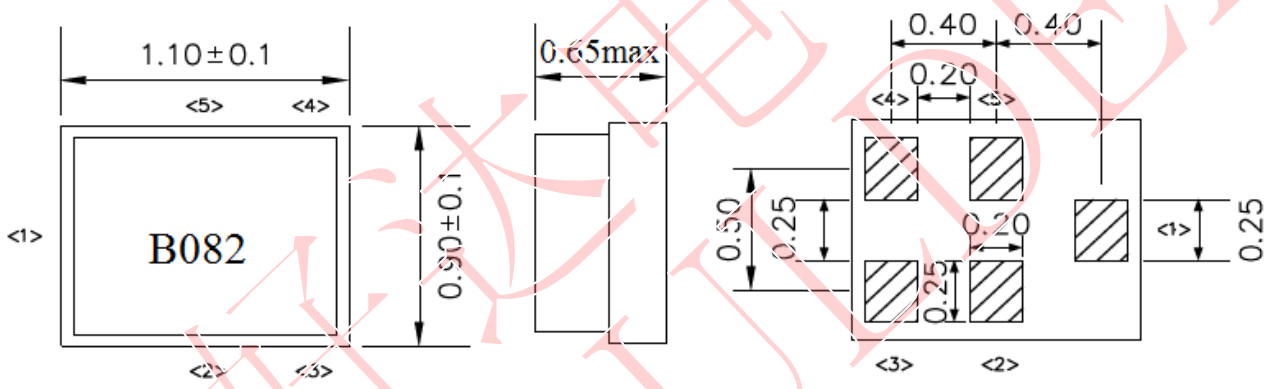
更改历史记录 History Record

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
2015-9-21	SP01	HDFB05RSB -B5		新品规格书 印字 B095	
2016-1-5	SP02	HDFB05RSB -B5		新设计，改善阻带， 增加产品的可靠性。 印字 B082。	
2016-5-30	SP03	HDFB05RSB -B5		Complete specifications. Add product application, reliability and other information.	
2016-8-23	SP04	HDFB05RSB -B5		Change carrier tape size. Carrier tape encryption.	10. TAPE SPECIFICATIONS [Figure 1] Carrier Tape Dimensions
2016-11-25	SP05	HDFB05RSB -B5		Correction device size. Thickness changed from 0.5max. to 0.65max	2. Package Dimension
2016-12-01	SP06	HDFB05RSB -B5		Optimized rejection segmentation.	5. ELECTRICAL SPECIFICATION

1. Application

- Low-loss RF filter for mobile telephone WCDMA Band V systems and GSM 850 systems, receive path (RX).
- Suitable for diversity applications.
- Unbalanced to balanced operation.
- Useable passband 25MHz.
- RoHS compatible.

2. DIMENSION (PKG SIZE 1.1 x 0.9mm)



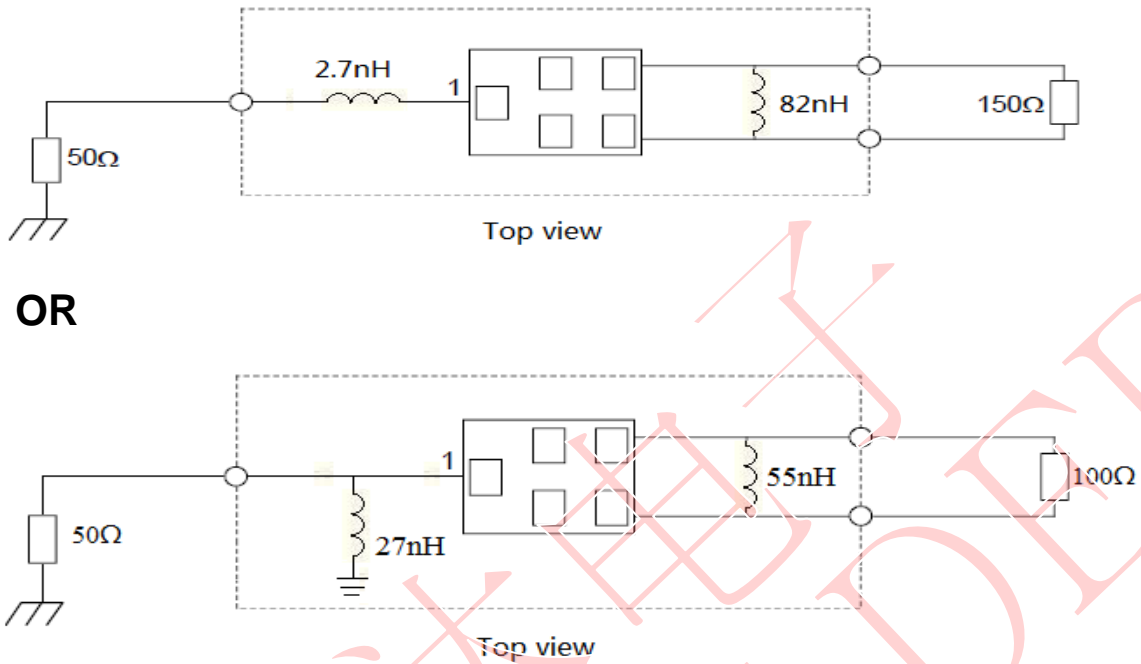
Unit: mm

Pin configuration
 1 Input
 3,4 Balanced Output
 2,5 Ground

3. Maximum Rating

Items	Conditions
Operation temperature rang	-30℃ ~ +85℃
Storage temperature rang	-40℃ ~ +85℃
ESD voltage	ESD(MM) : 50VDC
Sensitive discharge device	ESD(HBM) : 175VDC
DC Voltage VDC	5V
Max Input Power	15dBm 2000h
Moisture Sensitivity Level	MSL 2

4. TEST CIRCUIT



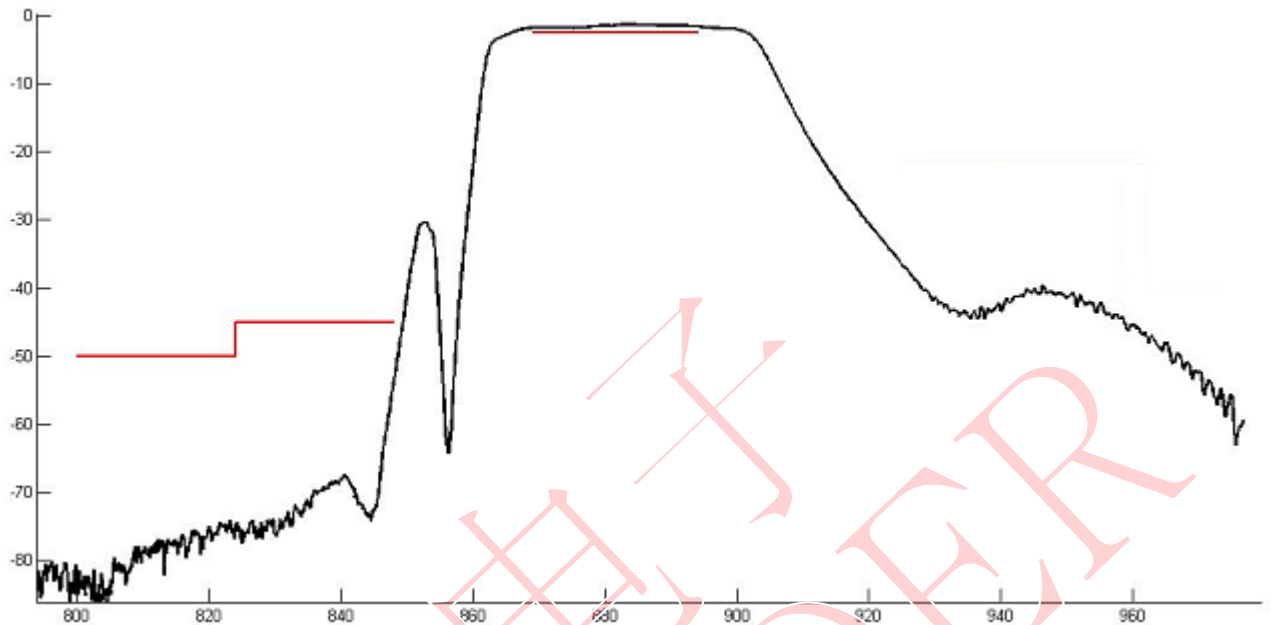
5. ELECTRICAL SPECIFICATION

Table1. Electrical Specification

Temperature range for specification: T = -20~+80℃
 Terminating source impedance: Zs = 50Ω unbalanced
 Terminating load impedance: Zl = 150Ω balanced or 100Ω balanced
 (Please choose according to actual use)

Item	Condition (MHz)	Specification			Unit
		Min	Typ	Max	
Insertion loss	869~894	-	1.8	2.3	dB
Pass band ripple	869~894	-	0.4	1.0	dB
VSWR	ANT 869~894	-	1.5	1.8	-
	Rx 869~894	-	1.5	1.8	-
Amplitude balance	869~894	-1.0	-0.2	1.0	dB
Phase balance	869~894	175	182	185	°
Absolute attenuation	0.1~824	55	70	-	dB
	824~849	48	55	-	dB
	1738~1788	50	60	-	dB
	1850~1910	50	60	-	dB
	1920~1980	50	60	-	dB
	2400~2484	50	55	-	dB
	3296~3396	46	53	-	
3396~6000	30	42	-	dB	

6. Typical frequency response



7. ENVIRONMENTAL CHARACTERISTICS

7.1 High temperature exposure

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 5.

7.2 Low temperature exposure

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 5.

7.3 Temperature cycling

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 5.

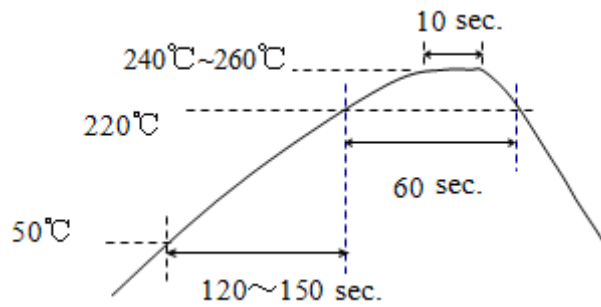
7.4 Resistance to solder heat

1. immerge the solder bath at 260°C for 10 sec.
2. the iron at 370°C for 3 sec

7.5 Solderability

Submerge the device terminals into the solder bath at 245°C \pm 5°C for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in 5.

7.6 Reflow soldering



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.

7.7 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1m 3 times. the device shall fulfill the specifications in 5.

7.8 Vibration

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 5.

8. REMARK

8.1 Static voltage

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

8.2 Ultrasonic cleaning

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

8.3 Soldering

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

9. Packing

9.1 Dimensions

(1) Carrier Tape: Figure 1

(2) Reel: Figure 2

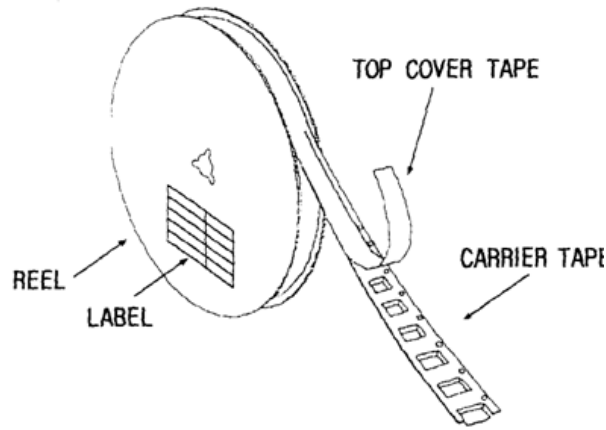
(3) The product shall be packed properly not to be damaged during transportation and storage.

9.2 Reeling Quantity

10000 pcs/reel ϕ 178mm

9.3 Taping Structure

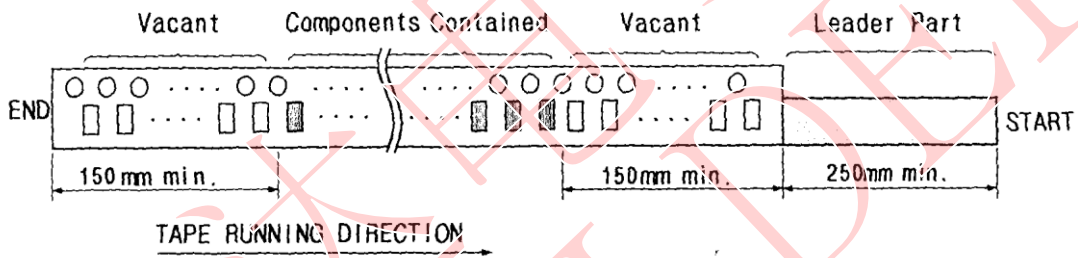
(1) The tape shall be wound around the reel in the direction shown below.



(2) Label

Device Name	
Marking	
User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.



10. TAPE SPECIFICATIONS

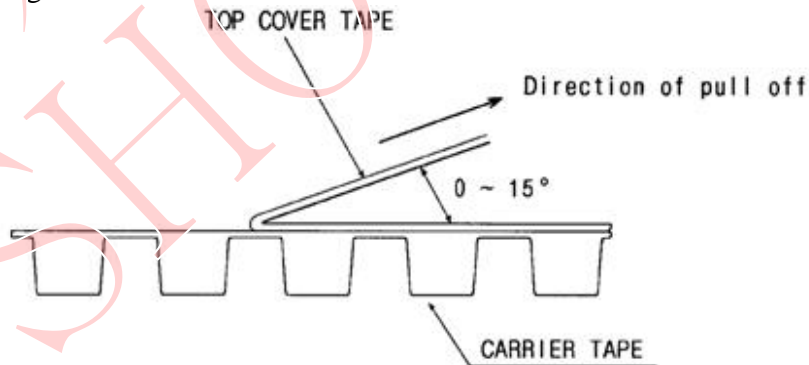
10.1 Tensile Strength of Carrier Tape: 4.4N/mm width

10.2 Top Cover Tape Adhesion (See the below figure)

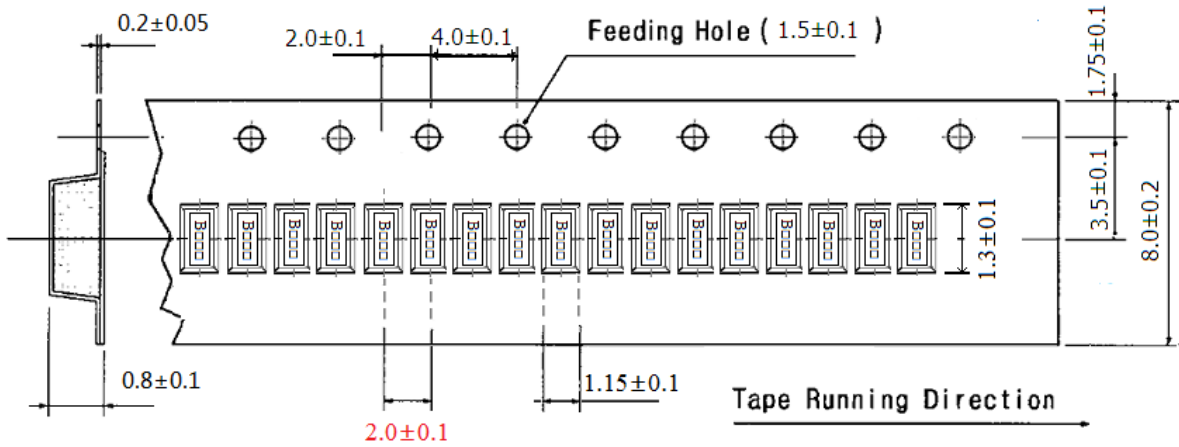
(1) pull off angle: 0~15°

(2) speed: 300mm/min.

(3) force: 20~70g

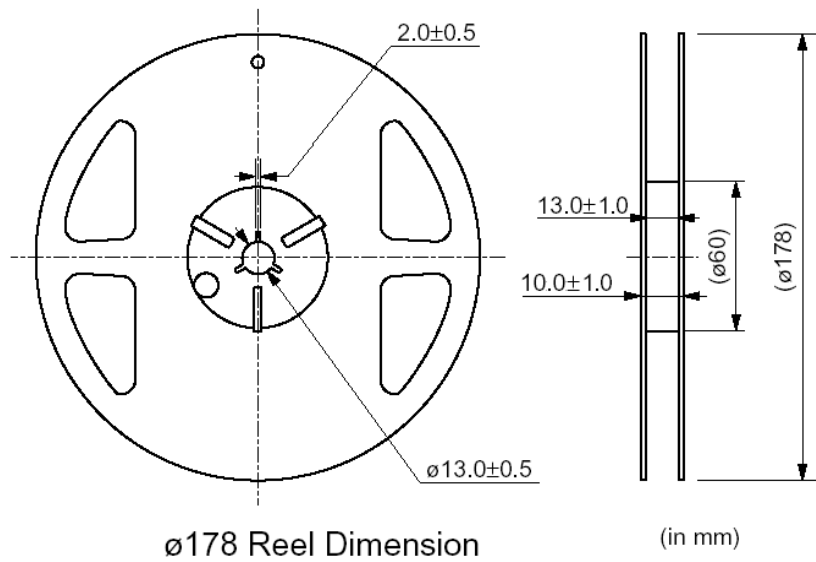


[Figure 1] Carrier Tape Dimensions



Prior to the size of 4.0±0.1, after encryption, modified to 2.0±0.1.

[Figure 2] 10000 pcs/reel φ 178mm



φ178 Reel Dimension