# **SHOULDER**

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:	HDF177A2-F11	
PREPARED 编 制:	CHECKED 审 核:	
APPROVED 批 准:	DATE 日期:	2013-9-11

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

# SAW FILTER

#### HDF177A2-F11

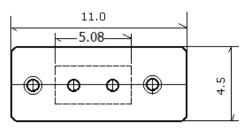
# 更改历史记录 History Record

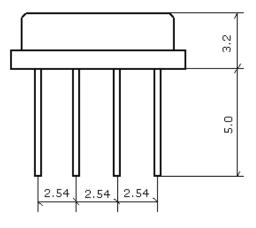
更改日期 Date	规格书编号 Spec. No.	产品型号 Part No.	客户产品型号 Customer No.	更改内容描述 Modify Content	备注 Remark

# SAW FILTER

#### HDF177A2-F11

## 1. Package Dimension





HDF177A2

## 2. Maximum Rating

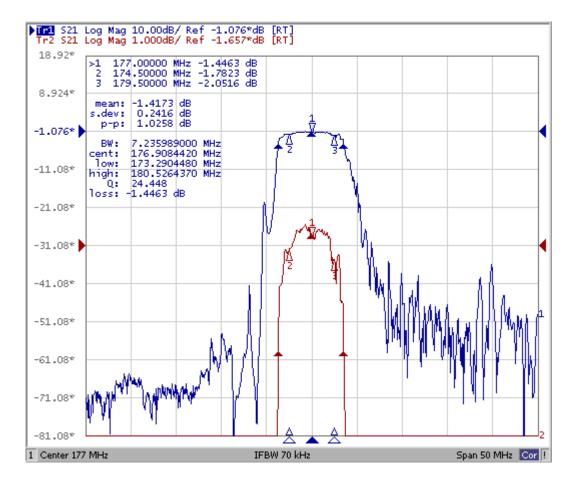
Operation Temperature Range	-40°C to +85°C	
Storage Temperature Range	-40°C to +85°C	
Maximum DC Voltage	10 V	
Maximum Input Power	10 dBm	

## 3. Performance

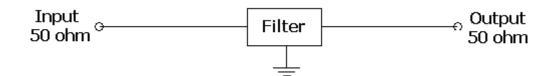
	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	-	177	-
Insertion Loss ( $177 \pm 2.5$ MHz)	dB		2.0	3.0
3dB bandwidth	MHz		6.9	
Attenuation				
100 MHz ~ 167 MHz	dB	40	50	-
187 MHz ~ 300 MHz		30	35	
Input/Output Impedance	Ohms		50	

#### HDF177A2-F11





#### 4. Test Circuit



#### **5. ENVIRONMENTAL CHARACTERISTICS**

#### 5-1 High temperature exposure

Subject the device to  $+85^{\circ}$ 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 3.

5-2 Low temperature exposure

Subject the device to  $-40^{\circ}$ 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 3.

#### 5-3 Temperature cycling

Subject the device to a low temperature of  $-40^{\circ}$ C for 30 minutes. Following by a high temperature of  $+85^{\circ}$ C for 30 Minutes. Then release the device into the room conditions

SAW FILTER

for 24 hours prior to the measurement. It shall meet the specifications in 3.

5-4 Resistance to solder heat

Dip the device terminals no closer than 1.5mm into the solder bath at  $260^{\circ}$ C  $\pm 10^{\circ}$ C for  $10\pm 1$  sec. Then release the device into the room conditions for 4 hours. The device shall meet the specifications in 3.

5-5 Solderability

Subject the device terminals into the solder bath at  $245^{\circ}$ C  $\pm 5^{\circ}$ C for 5s, More than 95% area of the terminals must be covered with new solder. It shall meet the specifications in 2-2.

5-6 Mechanical shock

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

5-7 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 3.

### 6. REMARK

6.1 Static voltage

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

6.2 Ultrasonic cleaning

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

6.3 Soldering

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