

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: \_\_\_\_\_ HDF110NS F11A \_\_\_\_\_  
PREPARED 编制: \_\_\_\_\_ CHECKED 审核: \_\_\_\_\_  
APPROVED 批准: \_\_\_\_\_ D A T E 日期: \_\_\_\_\_ 2006-5-11 \_\_\_\_\_

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

无锡市好达电子股份有限公司  
Shoulder Electronics Limited



## 1. SCOPE

This specification shall cover the characteristics of SAW filter F110NS.

## 2. ELECTRICAL SPECIFICATION

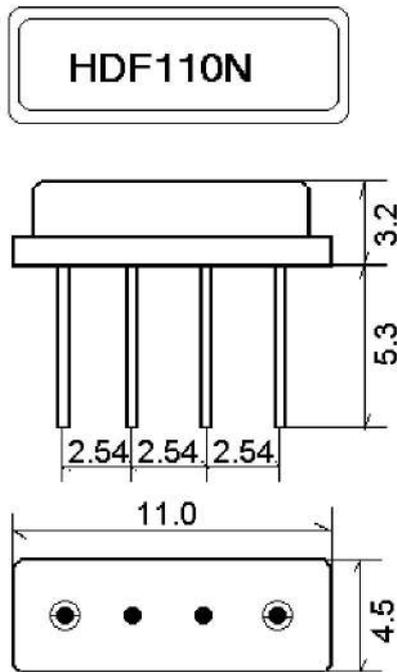
DC Voltage VDC	10V
AC Voltage Vpp	10V50Hz/60Hz
Operation temperature	-20°C to +55°C
Storage temperature	-45°C to +85°C
RF Power Dissipation	0dBm

### Electronic Characteristics

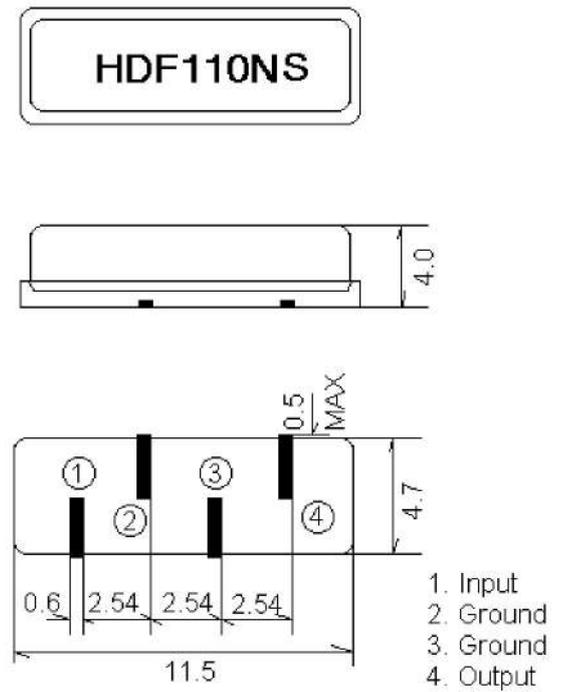
型号 Part Number	HDF110NS
中心频率(fo)(MHz) Nominal Center Frequency	110.592
3dB 带宽 Bandwidth(from fo)(KHz)	+/-576min
阻带衰减 Stop Band Attenuation (from peak level)(dB) 1)fo-3×1.728MHz 2)fo-2×1.728MHz 3)fo+/-1.728MHz 4)fo+2×1.728MHz 5)fo+3×1.728MHz	50min 45min 30min 40min 40min
插入损耗(dB) Insertion Loss(at minimum loss point)	4.5max
群延时波动(fo+/-576KHz)( μ scc.) Group Delay Deviation	0.7
输入/输出阻抗 Input/output Impedance	300 Ω //1.2 μ H

**3. DIMENSION**

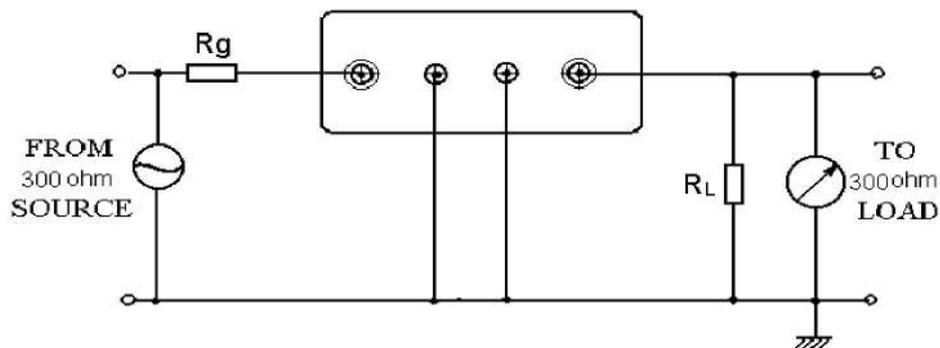
DIP TYPE:



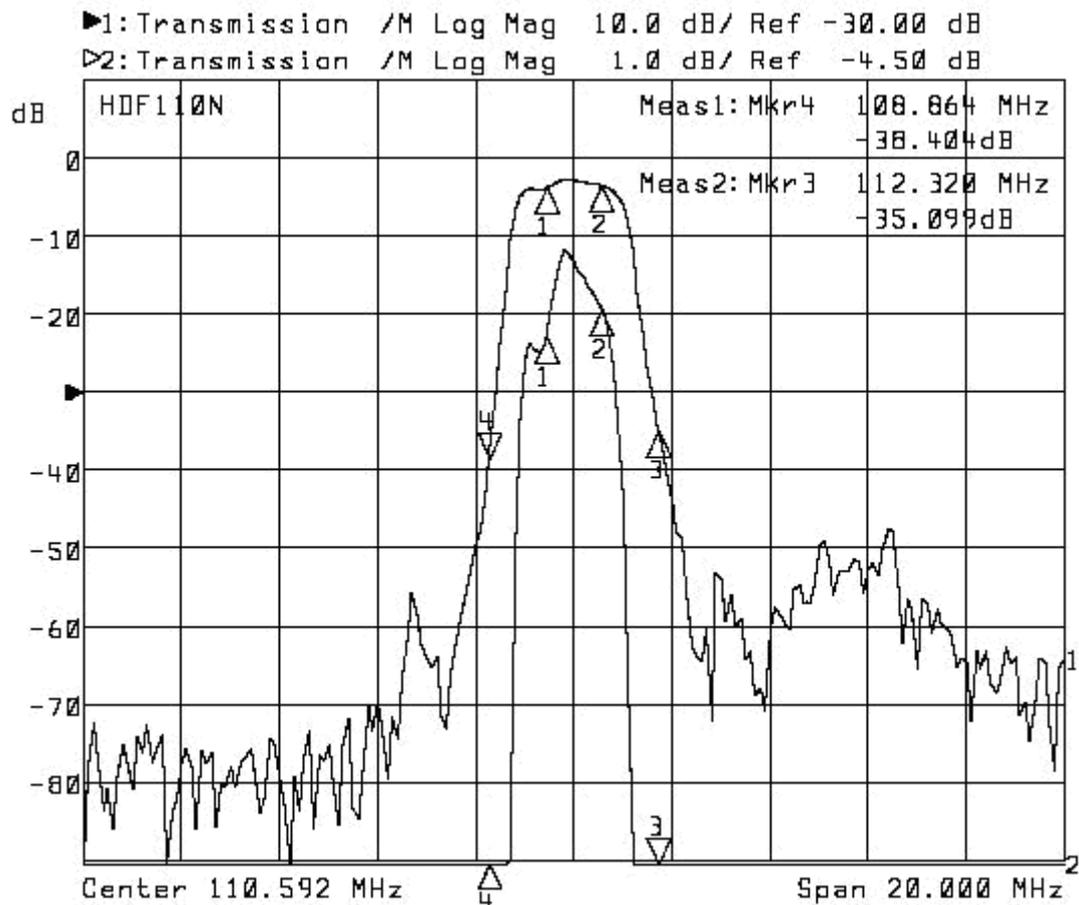
SEMI-SMD TYPE:



**4. TEST CIRCUIT**



## Typical frequency response



## 5. ENVIRONMENTAL CHARACTERISTICS

### 5-1 High temperature exposure

Subject the filter to +80°C for 96 hours. Then release the filter into the room conditions for 1 to 2 hours prior to the measurement. It shall fulfill the specifications in table 1.

### 5-2 Moisture

Keep the filter at 40°C and 95% rh for 96 hours. then release the filter into the room conditions for 1 to 2 hours prior to the measurement. It shall fulfill the specifications in table 1.

### 5-3 Low temperature exposure

Subject the filter to -20°C for 96 hours. Then release the filter into the room conditions for 1 to 2 hours prior to the measurement. It shall fulfill the specifications in table 1.

### 5-4 Temperature cycling

Subject the filter to a low temperature of -55°C for 30 minutes. Following by a high temperature of +85°C for 30 Minutes. Then release the filter into the room

conditions for 1 to 2 hours prior to the measurement. It shall meet the specifications in table 1.

#### 5-5 Resistance to solder heat

Dip the filter terminals no closer than 1.5mm into the solder bath at  $270^{\circ}\text{C} \pm 10^{\circ}\text{C}$  for  $10 \pm 1$  sec. Then release the Filter into the room conditions for 1 to 2 hours. The Filter shall meet the specifications in table 1.

#### 5-6 Mechanical shock

Drop the filter randomly onto the concrete floor from the height of 30cm 3 times. the filter shall fulfill the specifications in table 1.

#### 5-7 Vibration

Subject the filter 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 filter shall fulfill the specifications in table 1.

#### 5-8 Lead fatigue

##### 5-8-1 Pulling test

Weight along with the direction of lead without an shock 3kg. The filter shall satisfy all the initial Characteristics.

##### 5-8-2 Bending test

Lead shall be subject to withstand against  $90^{\circ}\text{C}$  bending in the direction of thickness. This operation shall be done toward both direction. The filter shall show no evidence of damage and shall satisfy all the initial electrical characteristics.

## 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.