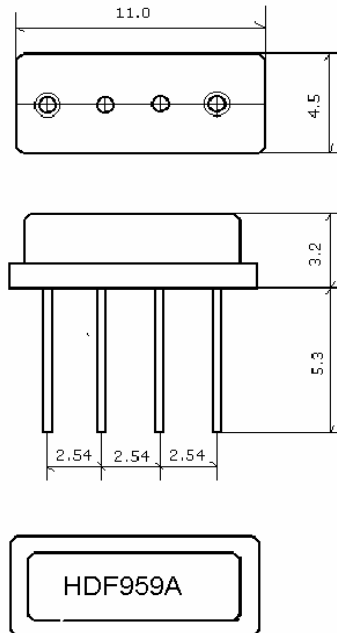


## 1. Package Dimension

Unit:mm



## 2. Marking **HD F959A**

2.1 Color: Black or Blue

2.2 959: Center Frequency(MHz)

## 3.Performance

### 3.1Application

Low-Loss SAW Filter of cordless system.

Center Frequency:959 MHz

### 3.2Maximum Rating

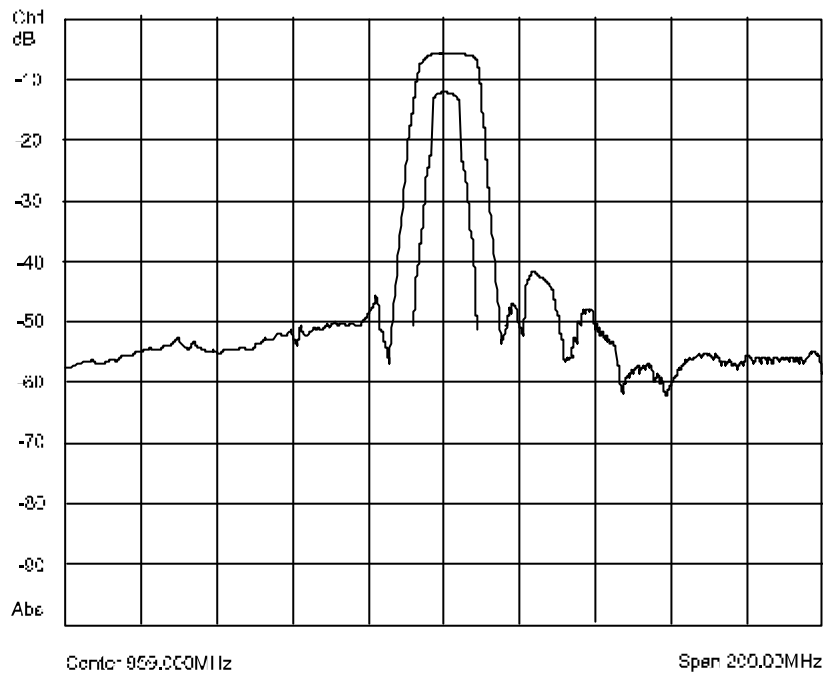
Operation Temperature Range	-20 to +50
Storage Temperature Range	-40 to +85
DC. Permissive Voltage	0 V DC. max.
Maximum Input Power	5dBm

## 1.1 Electronic Characteristics

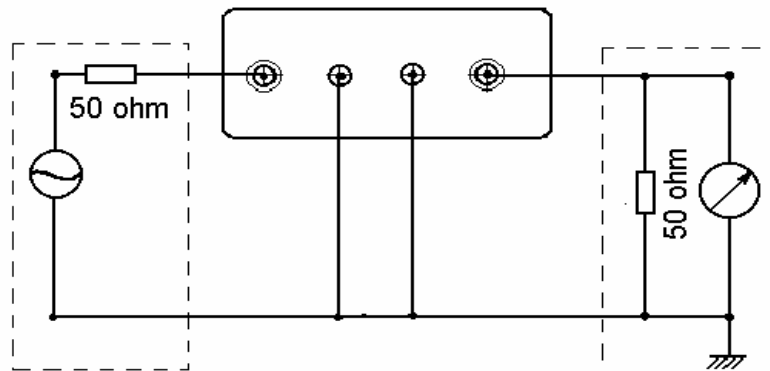
Item	Specification
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Center Frequency( $f_0$ )	959 MHz
<b>Insertion Loss(dB)</b>	
1.)958-960 MHz	3.5max
2.)913-918 MHz	40 min
3.)936-939 MHz	30 min
4.)979-982 MHz	20 min
5.)1000-1004 MHz	40 min
<b>Ripple deviation (958-960MHz)(dB)</b>	1.5max
<b>Input/output Impedance(Nominal)</b>	50
<b>Operating Temperature Range</b>	0 to +50

### 3.4 Frequency Characteristics



### 3.5 Test Circuit



## 4. ENVIRONMENTAL CHARACTERISTICS

### 4-1 High temperature exposure

Subject the device to +85 for 16 hours. Then release the filter into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in table 1.

### 4-2 Low temperature exposure

Subject the device to -20 for 16 hours. Then release the device into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in table 1.

### 4-3 Temperature cycling

Subject the device to a low temperature of -40 for 30 minutes. Following by a high temperature of +80 for 30 Minutes. Then release the device into the room conditions for 24 hours prior to the measurement. It shall meet the specifications in table 1.

### 4-4 Resistance to solder heat

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

### 4-5 Solderability

Subject the device terminals into the solder bath at 245  $\pm 5$  for 5s, More than 95% area of the terminals must be covered with new solder. It shall meet the specifications in table 1.

### 4-6 Mechanical shock

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

### 4-7 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 table 1.

### 4-8 Lead fatigue

#### 4-8-1 Pulling test

Weight along with the direction of lead without an shock 1kg. The device shall satisfy all the initial Characteristics.

#### 4-8-2 Bending test

Lead shall be subject to withstand against 90 bending with 450g weight in the direction of thickness. This operation shall be done toward

## 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.