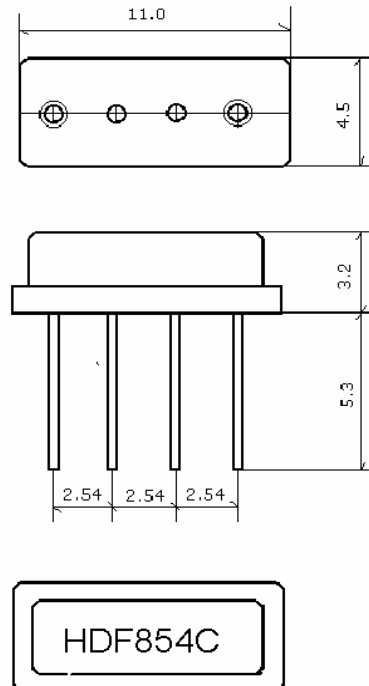


## 1. Package Dimension

Unit:mm



## 2. Marking **HD F854C**

2.1 Color: Black or Blue

2.2 854: Center Frequency(MHz)

## 3.Performance

### 3.1Application

Low-Loss SAW Filter of cordless system.

Center Frequency:854 MHz

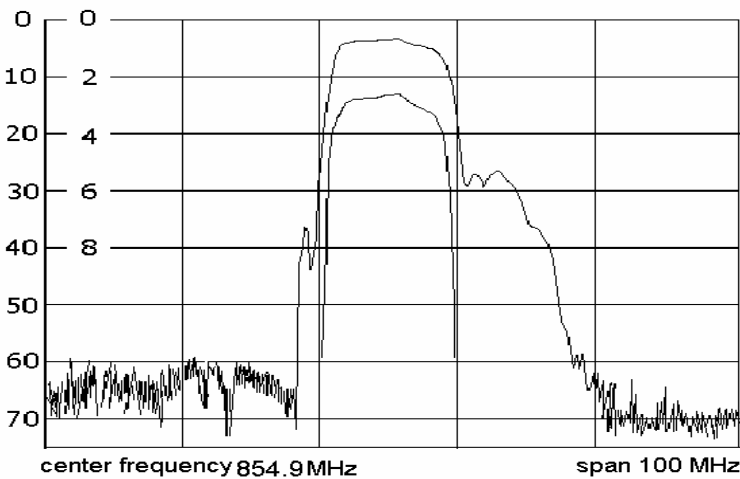
### 3.2Maximum Rating

Operation Temperature Range	-10 to +50
Storage Temperature Range	-40 to +85
DC. Permissive Voltage	0 V DC. max.
Maximum Input Power	5 dBm

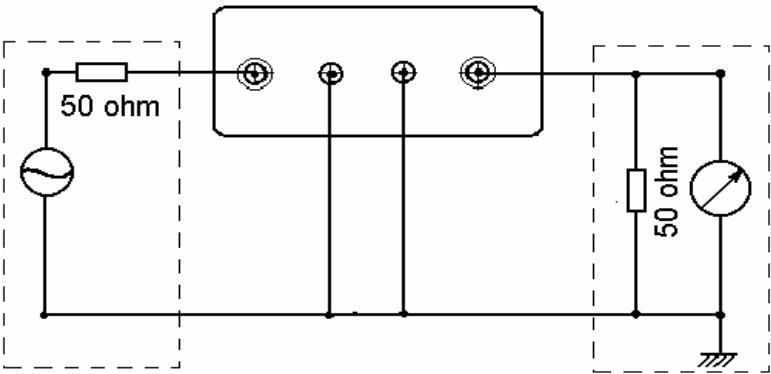
3.3 Electronic Characteristics

Item	Specification
Center Frequency( $f_0$ )	854.9 MHz
Insertion Loss(dB)  1.)806.0MHz 2.)600~ $f_0$ -38.0 MHz 3.) $f_0$ +30~ $f_0$ +60 MHz 4.) $f_0$ +60~ $f_0$ +150 MHz Passband width(-3dB)	  4.5 dB max 50 dB min 20 dB min 50 dB min $\pm 11.0$ MHz min
Ripple deviation ( $f_0 \pm 6$ MHz)(dB)	2.0 max
Input/output Impedance(Nominal)	50
Operating Temperature Range	0 to +50

3.4 Frequency Characteristics



3.5 Test Circuit



## 4. ENVIRONMENTAL CHARACTERISTICS

### 4-1 High temperature exposure

Subject the filter to +80 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 .

### 4-2 Moisture

Keep the filter at 40 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 .

### 4-3 Low temperature exposure

Subject the filter to -20 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.

### 4-4 Temperature cycling

Subject the filter to a low temperature of -55 for 30 minutes. Following by a high temperature of +85 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.

### 4-5 Resistance to solder heat

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

### 4-6 Mechanical shock

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

### 4-7 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.

### 4-8 Lead fatigue

#### 4-8-1 Pulling test

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

#### 4-8-2 Bending test

Lead shall be subject to withstand against 90 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.

## **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.