

Approved by:

Checked by:

Issued by:

SPECIFICATION

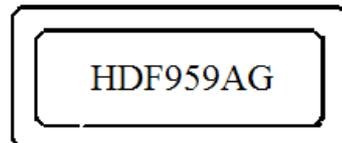
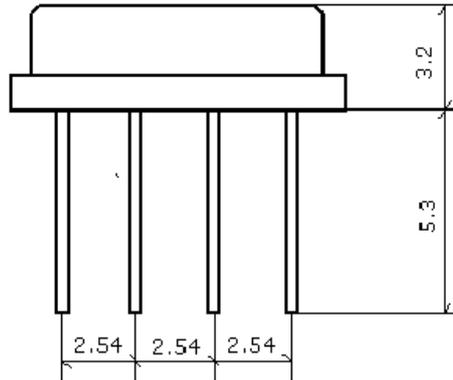
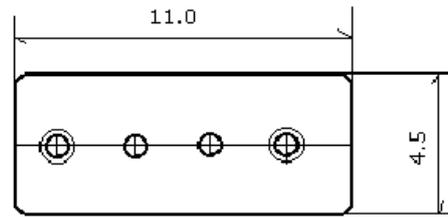
MODEL: HD F959AG F11



SHOULDER ELECTRONICS LIMITED

1. Package Dimension

Unit:mm



2. Marking

HD F959AG

2.1 Color: Black or Blue

2.2 959: Center Frequency(MHz)

3. Performance

3.1 Application

Low-Loss SAW Filter of cordless system.

Center Frequency:959 MHz

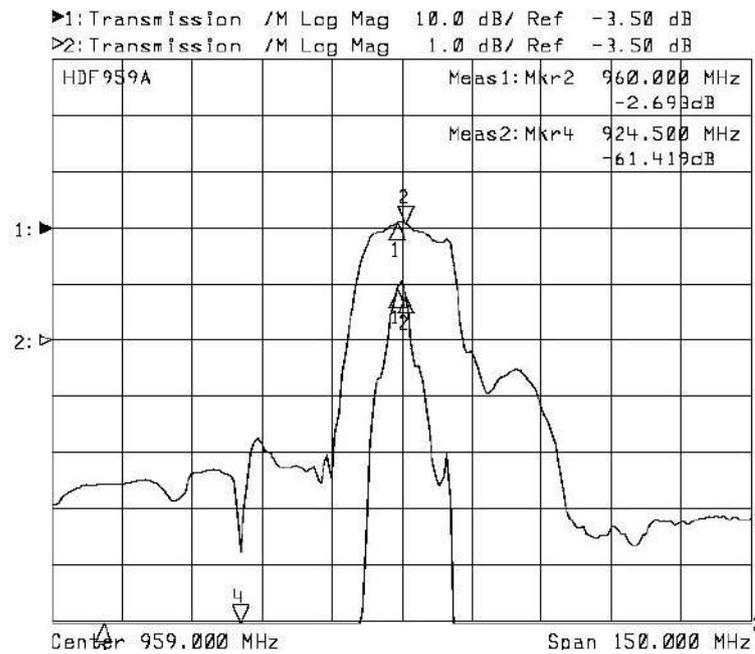
3.2 Maximum Rating

Operation Temperature Range	-10°C to +70°C
Storage Temperature Range	-40°C to +85°C
DC. Voltage	10 V max.
Maximum Input Power	10dBm

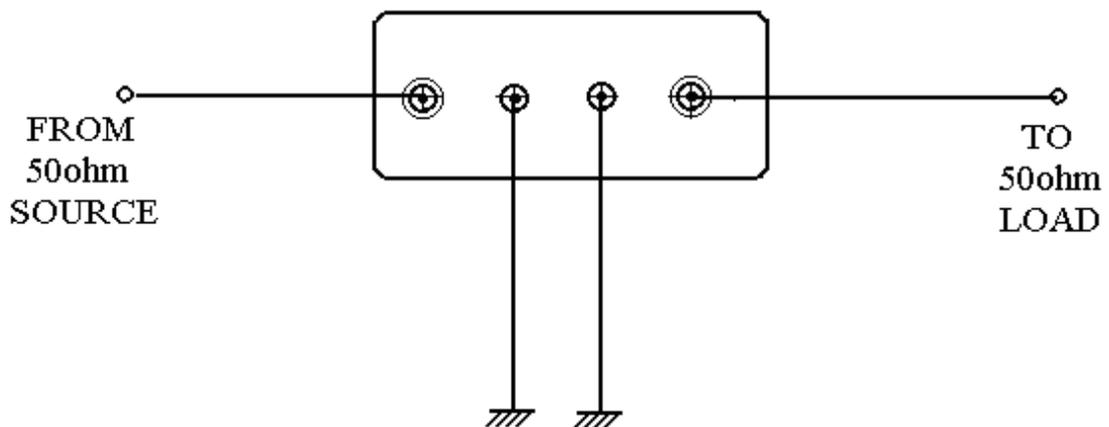
3.3 Electronic Characteristics

Item	Specification
Center Frequency(f_0)	959 MHz
Insertion Loss(dB)	
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
Ripple deviation (958-960MHz)(dB)	1.5max
Input/output Impedance(Nominal)	50 Ω
Operating Temperature Range	-10°C to +70°C

3.4 Frequency Characteristics



3.5 Test Circuit



4. ENVIRONMENTAL CHARACTERISTICS

4-1 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 table 1.

4-2 Low temperature exposure

Subject the device to -20°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 table 1.

4-3 Temperature cycling

Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of +80°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 table 1.

4-4 Resistance to solder heat

Dip the device terminals no closer than 1.5mm into the solder bath at 260°C $\pm 10^\circ\text{C}$ for 10 ± 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°C $\pm 5^\circ\text{C}$ 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°C 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.