Approved by:
Checked by:
Issued by:

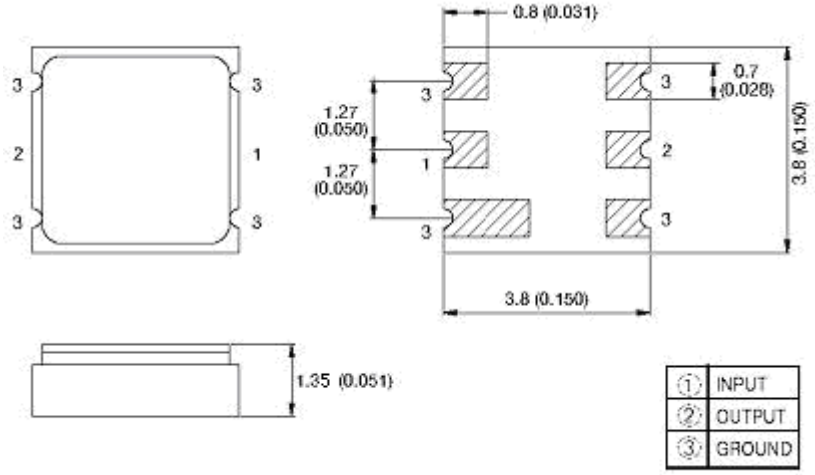
SPECIFICATION

PRODUCT: SAW FILTER

MODEL: HD F858CS4

SHOULDER ELECTRONICS LIMITED

1. Package Dimension



2. Marking

1.Color: Black or Blue

2.858: Center Frequency(MHz)

3.Performance

3.1 Application

Low-Loss SAW Filter of cordless system.

Center Frequency:858MHz

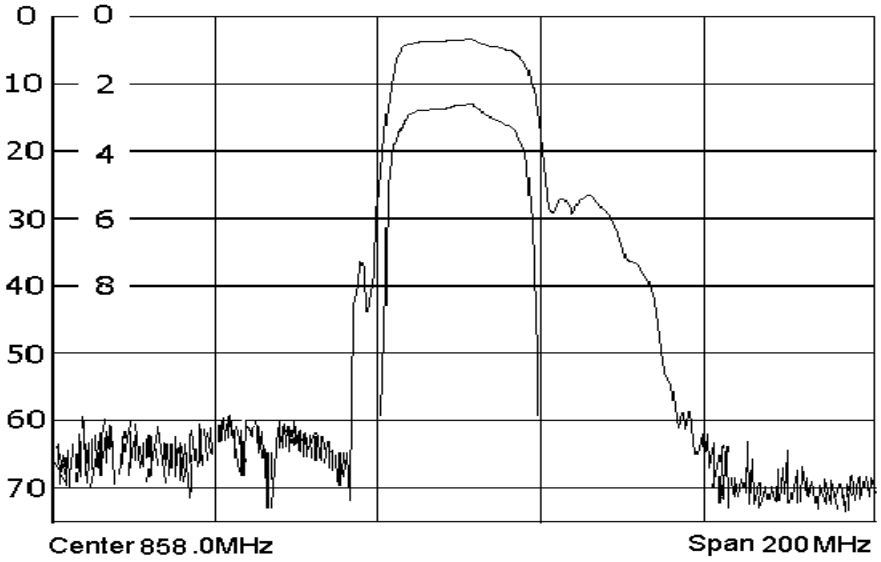
3.2 Maximum Rating

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

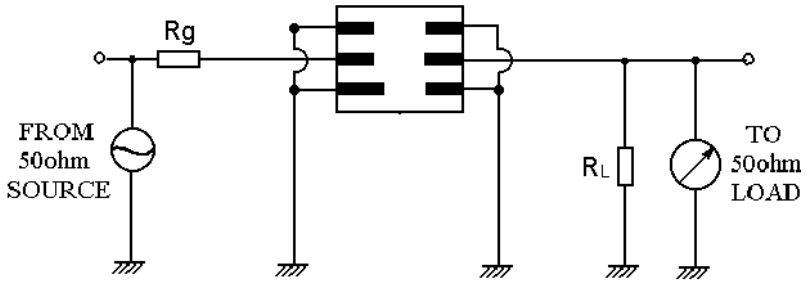
3.3 Electronic Characteristics

Item	Specification
Center Frequency(fo)	858.0MHz
Insertion Loss Fo±4 MHz	 5.0 dB max
1.)Fo-36.0 MHz 2.)Fo-200~36 MHz 3.)Fo+100~300 MHz	50 dB min 40 dB min 50 dB min
Ripple deviation (854~862MHz)(dB)	2.0max
Input/output Impedance(Nominal)	50Ω
Operating Temperature Range	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℃ ±10℃ 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℃ ±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.

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.

6. Packing

6.1 Dimensions

(1) Carrier Tape: Figure 1

(2) Reel: Figure 2

(3) The product shall be packed properly not to be damaged during transportation and storage.

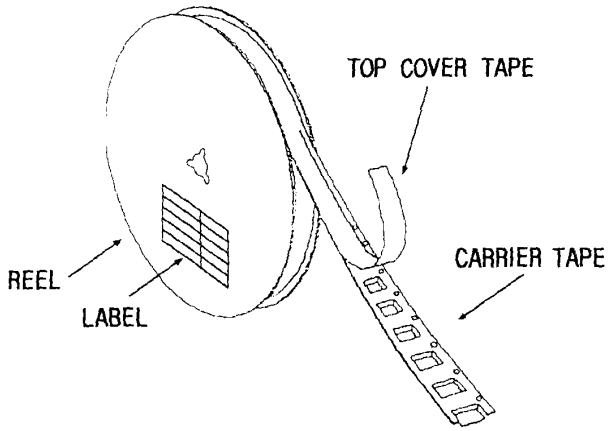
6.2 Reeling Quantity

1000 pcs/reel 7''

3000 pcs/reel 13''

6.3 Taping Structure

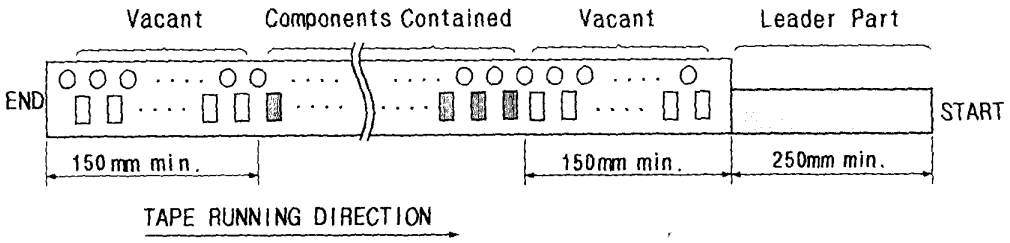
(1) The tape shall be wound around the reel in the direction shown below.



(2) Label

Device Name	
User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.



7. TAPE SPECIFICATIONS

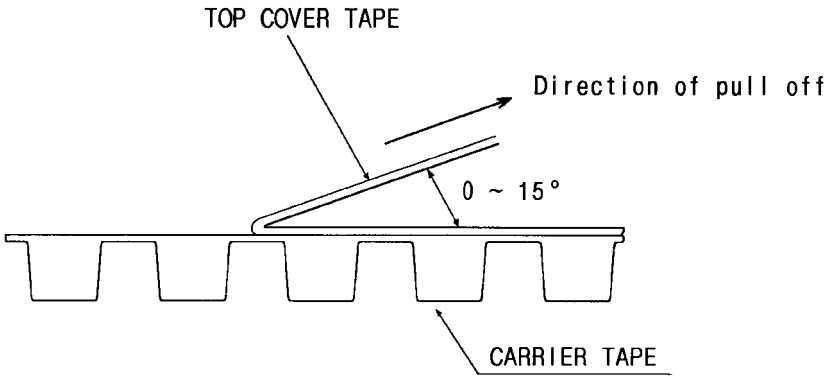
7.1 Tensile Strength of Carrier Tape: 4.4N/mm width

7.2 Top Cover Tape Adhesion (See the below figure)

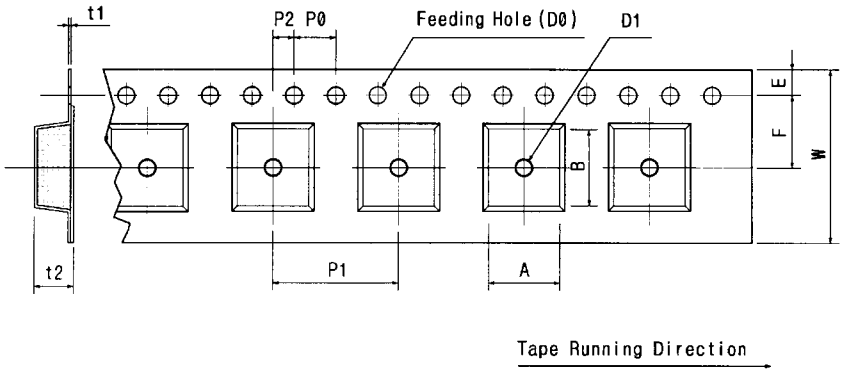
(1) pull off angle: 0~15°

(2) speed: 300mm/min.

(3) force: 20~70g



[Figure 1] Carrier Tape Dimensions

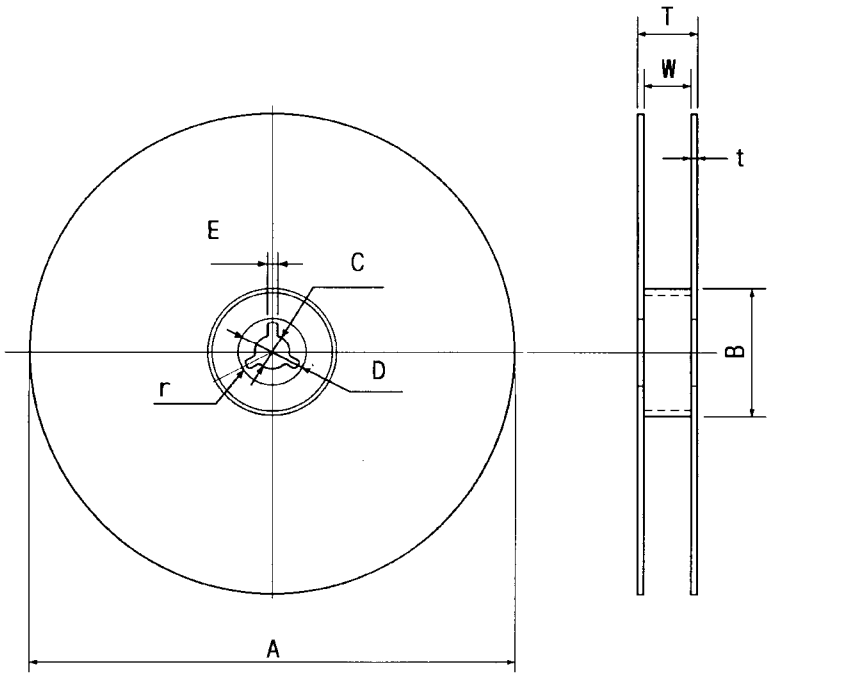


[Unit:mm]

W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0± 0.3	5.5 ±0.05	1.75± 0.1	4.0 ±0.1	8.0 ±0.1	2.0 ±0.05	Ø1.5± 0.1	Ø1.0 ±0.25	0.3 ±0.05	2.10± 0.1	6.40± 0.1	5.20± 0.1

[Figure 2]

[Unit:mm]



A	B	C	D	E	W	t	r
Ø330 ±1.0	Ø100 ±0.5	Ø13 ±0.5	Ø21 ±0.8	2 ±0.5	13 ±0.3	3 max.	1.0 max.