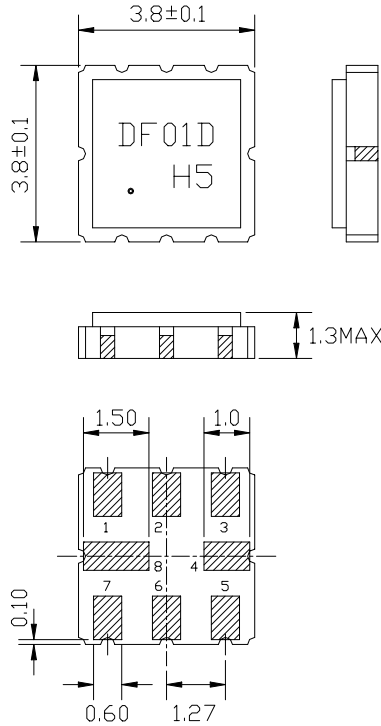


### 1. Package Dimension

( S34 )

Unit: mm



Pin No.	Function
1	Input Ground
2	Input
5	Output
6	Output Ground
4,8	Case-Ground
3,7	to be Grounded

### 2. Marking


DF01D		(1) Ink Marking or Laser Marking
.H5		(2) DF: Manufacture's logo (3) 01D: Model code (4) - : Pin 1 Identifier (5) H5: Date code

H  
Month code

5  
Last figure of year

Month	1	2	3	4	5	6	7	8	9	10	11	12
Month code	A	B	C	D	E	F	G	H	I	J	K	L

e.g.: " H5 " means August of 2005

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### 3. Performance

#### 3.1 Application

RF Low-loss SAW Filter for Remote Controller Receivers.


Center frequency( $f_0$ ): 433.92 MHz

#### 3.2 Maximum Rating

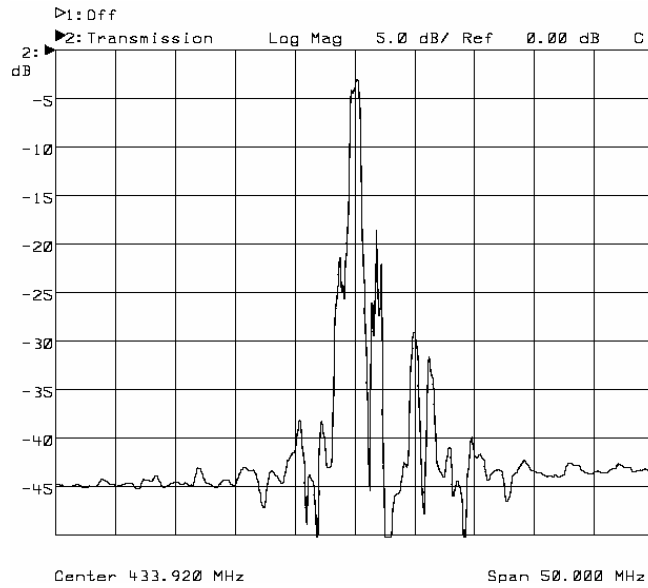
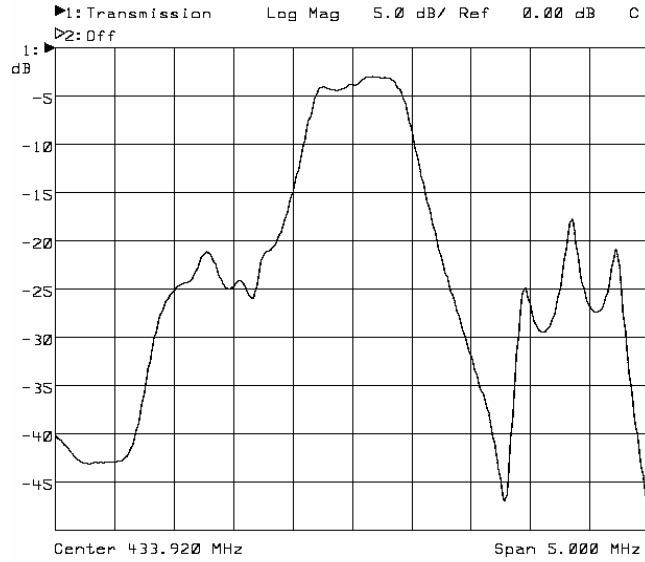
DC Voltage Between Terminals $V_{DC}$	10V
Operation Temperature Range	-40°C to +85°C
Storage Temperature Range	-40°C to +85°C
CW RF Power Dissipation	10dBm

#### 3.3 Electronic Characteristics

Item	Units	Minimum	Typical	Maximum
Center Frequency ( $f_0$ )	MHz	—	433.92	—
Insertion Loss 433.76MHz ~ 434.08MHz	dB	—	3.0	5.0
Pass Band 433.76 ~ 434.08 MHz	dB	—	1.1	2.0
433.74 ~ 434.10 MHz	dB	—	1.4	3.0
3dB Bandwidth	KHz	600	750	850
Relative Attenuation (Relative to ILmin)				
10.00 ~ 414.00MHz	dB	42.0	45.0	—
414.00 ~ 423.50MHz	dB	39.0	41.0	—
423.50 ~ 431.72MHz	dB	29.0	34.0	—
431.72 ~ 432.12MHz	dB	26.0	35.0	—
432.12 ~ 433.10MHz	dB	17.0	21.0	—
434.92 ~ 442.00MHz	dB	14.0	15.0	—
442.00 ~ 500.00MHz	dB	35.0	37.0	—
500.00 ~ 700.00MHz	dB	40.0	42.0	—
700.00 ~ 1000.00MHz	dB	48.0	52.0	—
Impedance at 433.92MHz				
Input: $Z_{in} = R_{in} // C_{in}$	$\Omega // pF$	—	150//4.7	—
Output: $Z_{out} = R_{out} // C_{out}$	$\Omega // pF$	—	150//4.7	—
Turnover Temperature	°C	10	25	40
Turnover Frequency	MHz	—	433.92	—
Temperature Coefficient	Ppm/°C <sup>2</sup>	—	0.033	—

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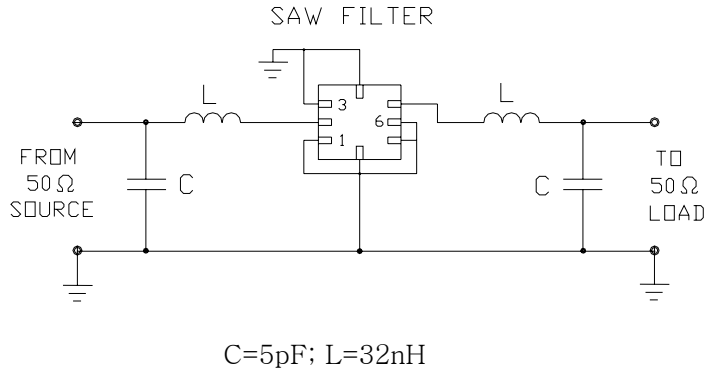
3.4 Frequency Characteristics



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3.5 Test Circuit



**4. Reliability**

- 4.1 Mechanical Shock: The components shall remain within the electrical specifications after three one-half sine shock pulses(3000g's for 0.3ms) in each direction(for six total) along each of the three mutually perpendicular axes for a total of 18 shocks.
- 4.2 Vibration Fatigue: The components shall remain within the electrical specifications after loaded vibration at 20~55Hz, amplitude 1.5mm, X,Y,Z, direction, for 2 hours.
- 4.3 Leak Test
  - 4.3.1 Gross Leak Test: Submerge samples into at +85°C water for at least 1 minute. Carefully observe the samples. No bubbles should be seen.
  - 4.3.2 Fine Leak Test: Expose samples for testing to 60 PSIG Helium gas for 2 hours. Then transfer the same samples to another chamber and draw a vacuum. Measure the leak rate. Failure is defined if the leak rate exceeds  $5 \times 10^{-8}$  atm cc/sec Helium.
- 4.4 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the  $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 960 hours, then kept at room temperature for 2 hours.
- 4.5 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the  $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 960 hours, then kept at room temperature for 2 hours.
- 4.6 Temperature Cycle: The components shall remain within the electrical specification after 32 cycles of high and low temperature testing (one cycle:  $80^{\circ}\text{C}$  for 30 minutes  $\rightarrow$   $25^{\circ}\text{C}$  for 20 seconds  $\rightarrow$   $-40^{\circ}\text{C}$  for 30 minutes) than kept at room temperature for 2 hours.
- 4.7 Humidity Test: The components shall remain within the electrical specifications after being kept at the condition of ambient temperature  $70^{\circ}\text{C}$ , and 90~95% RH for 240 hours, then kept at room temperature and normal humidity for 4 hours.
- 4.8 Solder-heat Resistance: The components shall remain within the electrical specifications after dipped in the solder at  $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$  for 10 to 11 seconds, then kept at room temperature for 10 minutes.

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4.9 Solderability: Solderability of terminal shall be kept at more than 80% after dipped in the solder flux at 230°C±5°C for 5±1 seconds.

4.10 Storage: The components shall meet the electrical and mechanical specifications after 5 years storage, if stored within the temperature range of -40°C~+85°C and in the humidity of 20 to 60% r.h.

**5. Remarks**

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

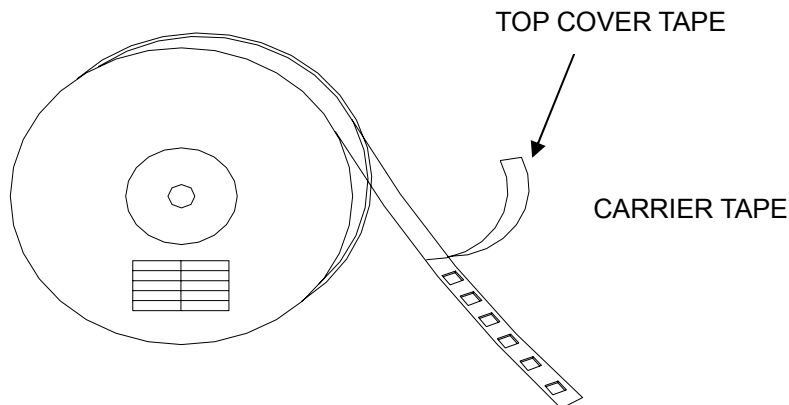
- (1) Carrier Tape: Figure 1
- (2) Reel: Figure 2
- (3) The product shall be packed properly not to be damaged during transportation and storage.


6.2 Reeling Quantity

1,000 pcs/reel

6.3 Taping Structure

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

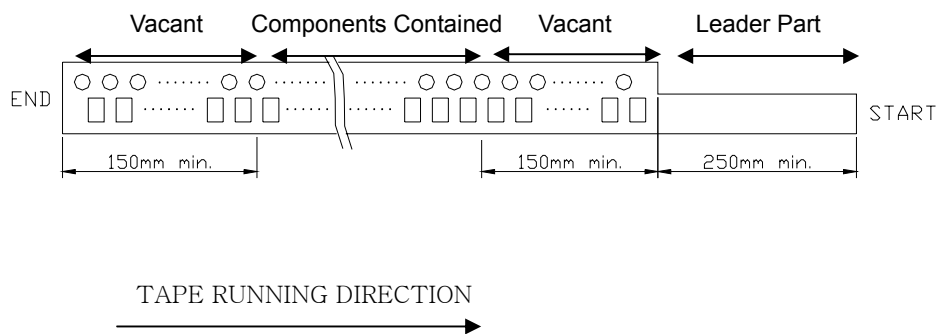


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(2) Label

Device Name	
Type	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.

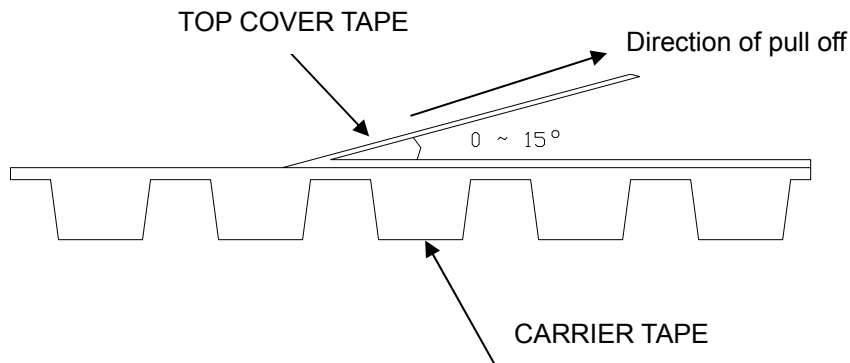


### 7. Tape Specifications

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

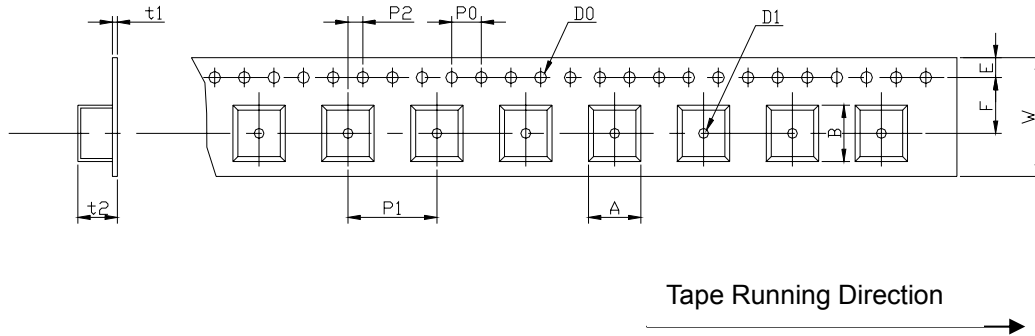
7.2 Top Cover Tape Adhesion (See the below figure)

- (1) pull off angle: 0~15°
- (2) speed: 300mm/min.
- (3) force: 20~70g



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[Figure 1] Carrier Tape Dimensions

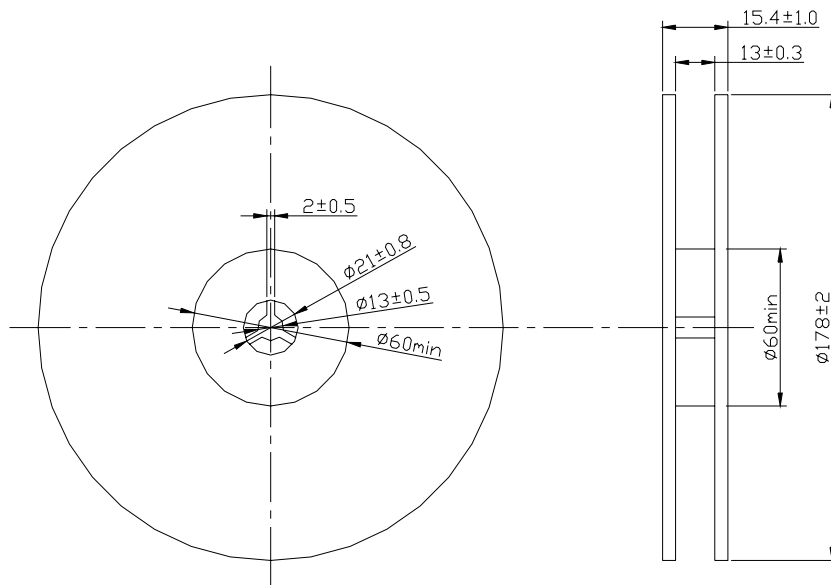


[Unit: mm]

W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0	5.5	1.75	4.0	4.0	2.0	Φ1.5	Φ1.5	0.31	1.95	3.3	3.3
±0.3	±0.1	±0.1	±0.2	±0.1	±0.2	±0.1	±0.25	max.	max.	max.	max.

[Figure 2] Reel Dimensions

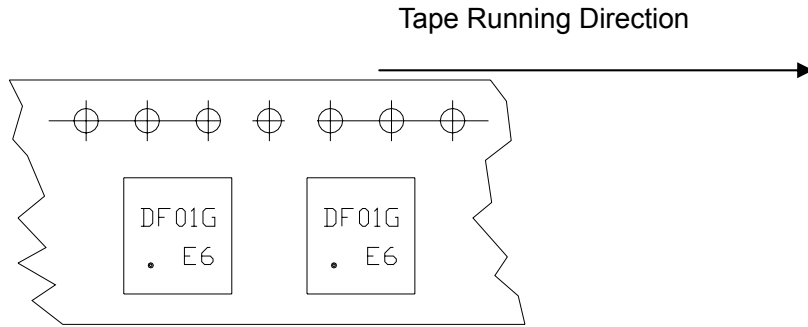
[Unit: mm]




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[Figure 3] Part Direction



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