

# SPECIFICATION

COMMERCIALY AVAILABLE

ITEM: SAW FILTER  
PART NUMBER: SF0204004

ISSUED / REVISION	ENGINEER APPROVED	DOCUMENT CHECKED	DRAFTSMAN
1/12/2011 DS			
1/17/11 DS	1/17/2011 SRJ	1/17/2011 BF	1/17/2011 GL
1/20/11 DS	1/21/2011 SRJ	1/24/2011 BF	1/24/2011 GL

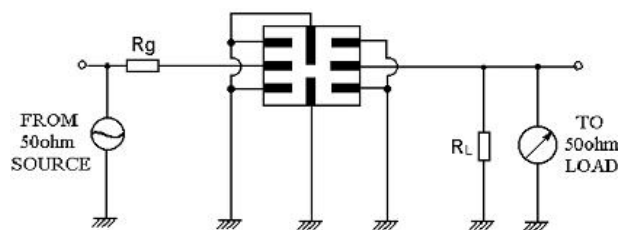
**FILTRONETICS Inc**

1. Electrical Specifications:

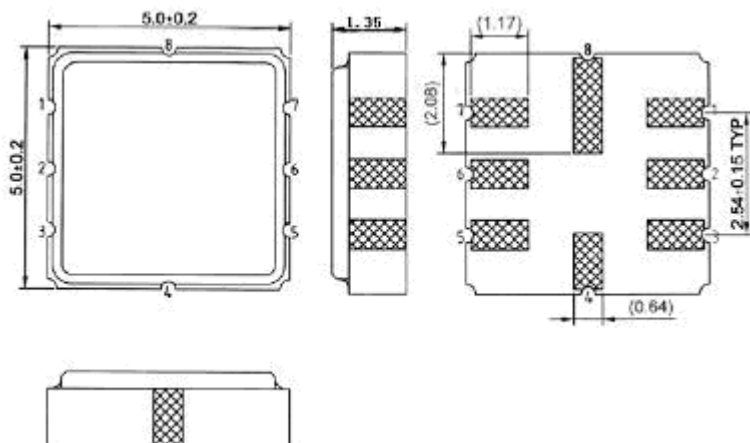
PART NUMBER	SF0204004	UNIT
NOMINAL CENTER FREQUENCY(F <sub>0</sub> )	204.8	MHz
INSERTION LOSS: 1. F <sub>0</sub> -100 MHz TO -42.8 MHz 2. F <sub>0</sub> ±2 MHz 3. F <sub>0</sub> +42.8 TO F <sub>0</sub> +100MHz	50.0 MIN 5.5 MAX 50.0 MIN	dB
RIPPLE (F <sub>0</sub> ±2 MHz)	2.0 MAX	dB
INPUT AND OUTPUT IMPEDANCE	50/0	Ω/pF

DC Voltage VDC	10V
AC Voltage Vpp	10V 50Hz/60Hz
Operation Temperature	-20°C to +85°C
Storage Temperature	-45°C to +85°C
RF Power Dissipation	0 dBm

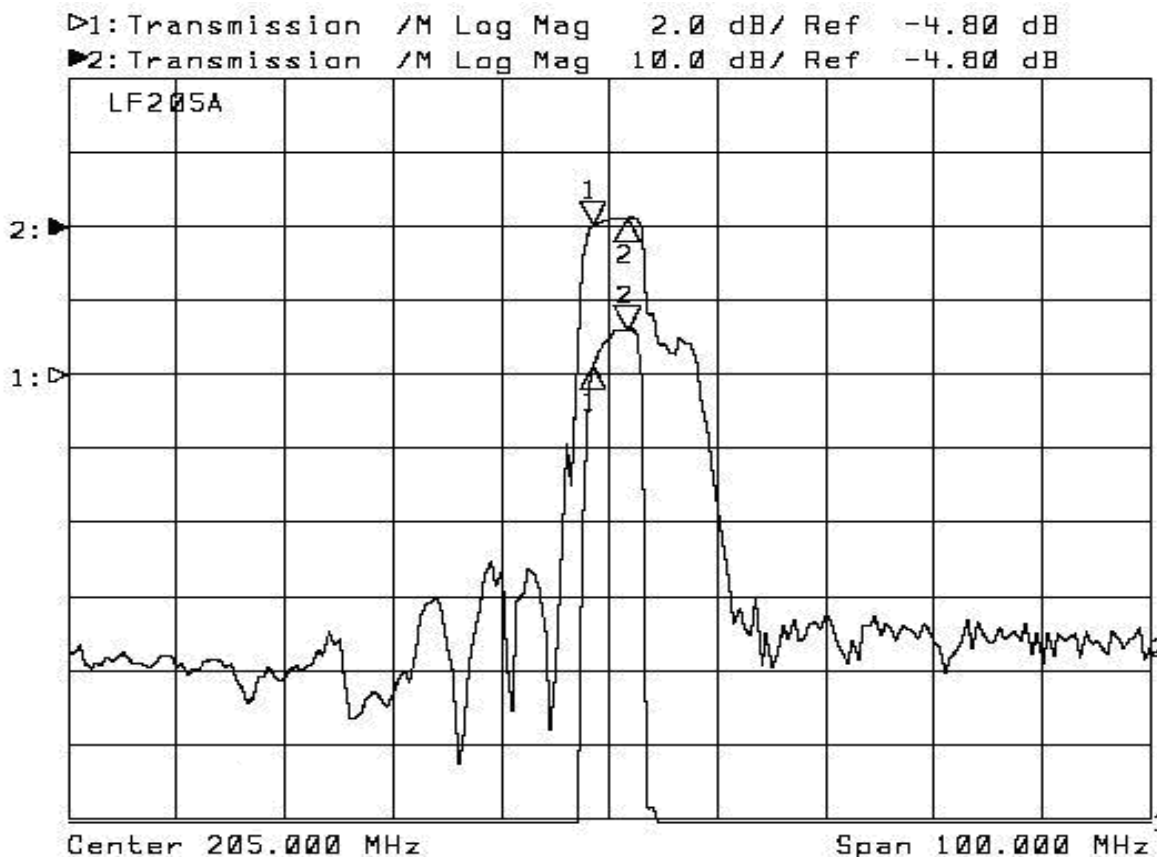
TEST CIRCUIT



2: Mechanical:



- |    |              |
|----|--------------|
| 1. | Ground       |
| 2. | Input/output |
| 3. | Ground       |
| 4. | Ground       |
| 5. | Ground       |
| 6. | Input/output |
| 7. | Ground       |
| 8. | Ground       |

**3:Plot****4. ENVIRONMENTAL CHARACTERISTICS****5-1 Temperature cycling**

Subject the device to a low temperature of -25 for 30 minutes. Following by a high temperature of +25 for 5 Minutes and a higher temperature of +85 for 30 Minutes. Then release the device into the room conditions for 1 to 2 hours prior to the measurement. It shall meet the specifications in 2-2.

**5-2 Resistance to solder heat**

Submerge the device terminals into the solder bath at  $260 \pm 5$  for  $10 \pm 1$  sec. Then release the device into the room conditions for 4 hours. It shall meet the specifications in 2-2.

**5-3 Solderability**

Submerge the device terminals into the solder bath at  $245 \pm 5$  for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in 2-2.

#### 5-4 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1 m 3 times.  
the filter shall fulfill the specifications in 2-2.

#### 5-5 Vibration

Subject the device to the vibration for 2 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 in 2-2.

### **5. REMARK**

#### 6.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

#### 6.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component.  
Please avoid ultrasonic cleaning

#### 6.3 Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.

### **6. Packing**

#### 7.1 Dimensions

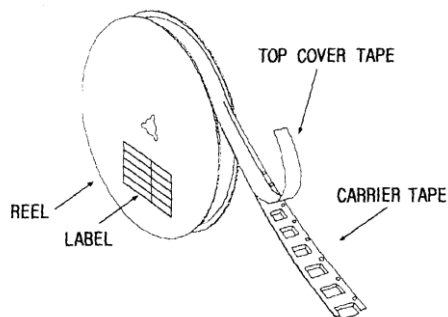
- (1) Carrier Tape: Figure 1
- (2) Reel: Figure 2
- (3) The product shall be packed properly not to be damaged during transportation and storage.

#### 7.2 Reeling Quantity

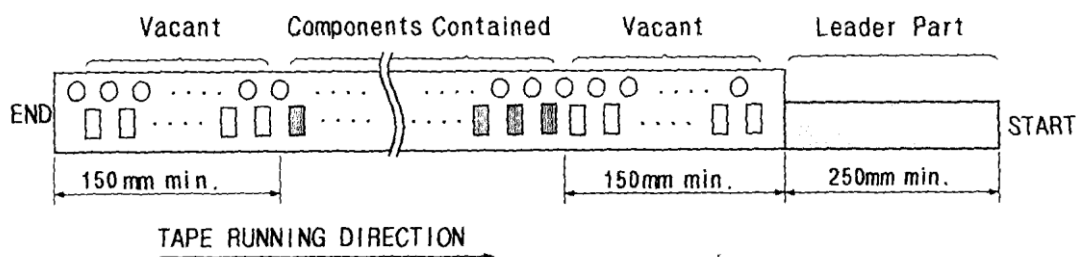
- 1000 pcs/reel 7"
- 3000 pcs/reel 13"

#### 7.3 Taping Structure

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



(3) Leader part and vacant position specifications.



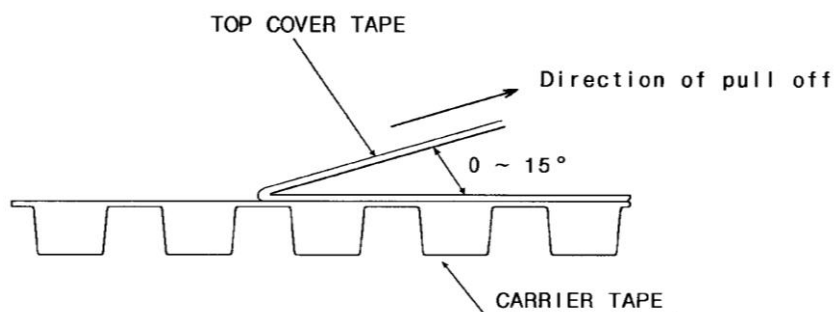
## 7. TAPE SPECIFICATIONS

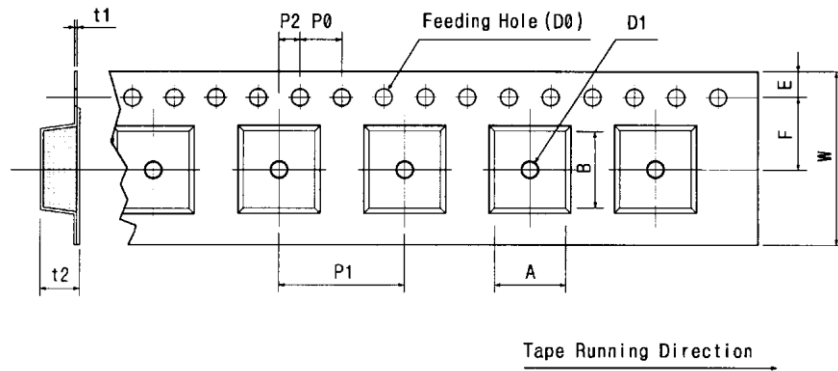
8.1 Tensile Strength of Carrier Tape: 4.4N/mm width

8.2 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



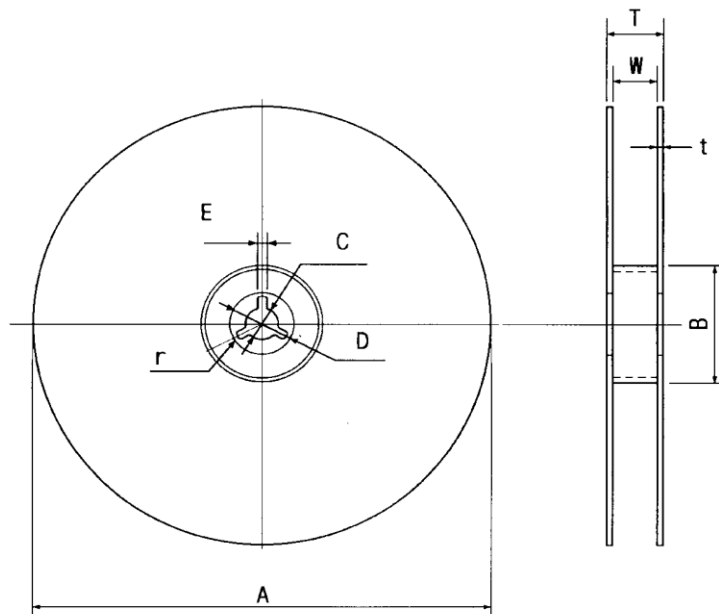


[Unit: mm]

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	∅1.5±0.1	∅1.0 ±0.25	0.3 ±0.05	2.10±0.1	6.40±0.1	5.20±0.1

[Unit: mm]

[Figure 2]



A	B	C	D	E	W	t	r
∅330 ±1.0	∅100 ±0.5	∅13 ±0.5	∅21 ±0.8	2 ±0.5	13 ±0.3	3 max.	1.0 max.