

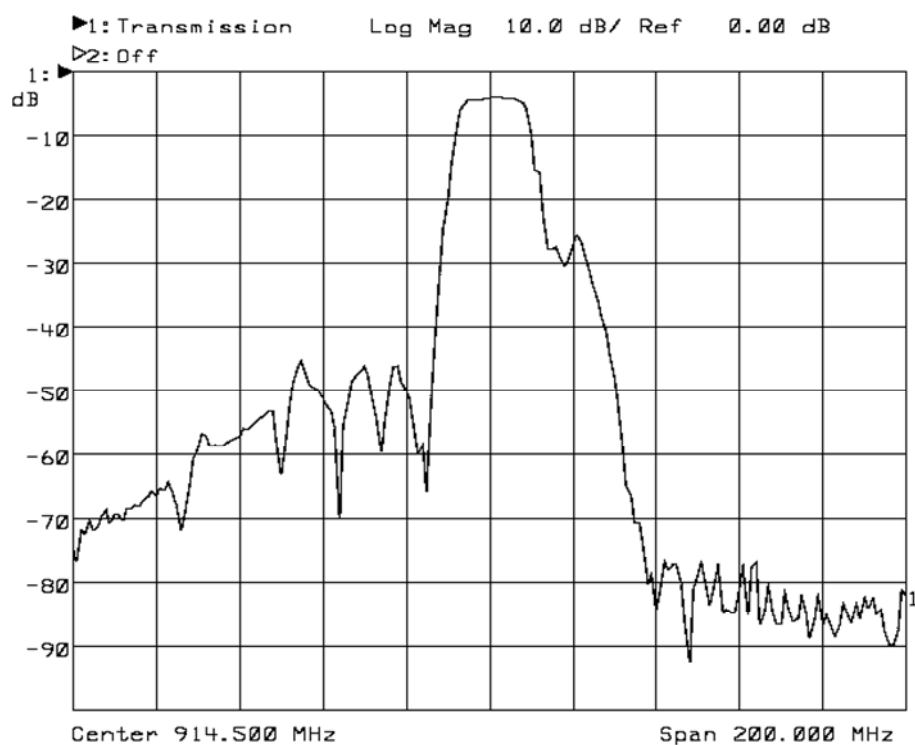
1. SCOPE

This specification describes a surface mount (SMD) SAW filter 914.500 MHz.

2. MAXIMUM RATING

Operation Temperature	- 10°C to +60°C
Storage Temperature Range	- 25°C to 70°C
DC Permissive Voltage	10V DC max
Maximum Input Power	10 dBm

2.1 TYPICAL FREQUENCY RESPONSE



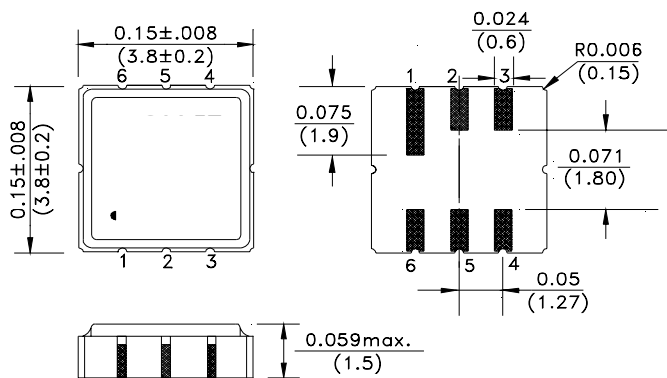
TITLE **AFS914.5W01-TS3**
SMD SAW 914.5 MHz FILTER

PREP. WN	DATE 7/29/2005	APP'D CB	DATE 8/1/2005	SCALE None	DRAWING NO. -	REV.
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2.2 ELECTRONIC CHARACTERISTICS

Item	Units	Minimum	Typical	Maximum
Center Frequency (f_0)	MHz	-	914.5	-
3dB Passband Width	MHz	-	$f_0 \pm 3.5$	-
Insertion Loss (Passband)	dB	-	-	4.5
Ripple Deviation (Passband)	dB	-	-	1.5
Stop Band Suppression				
DC ~ 834.5	dB	55.0	-	-
834.5 MHz ~ 872.9 MHz	dB	45.0	-	-
959.5 MHz ~ 974.5 MHz	dB	30.0	-	-
974.5 MHz ~ 1500 MHz	dB	50.0	-	-
Terminating Impedance	Ω	-	$50 \pm j57.4$	-

3. PACKAGE



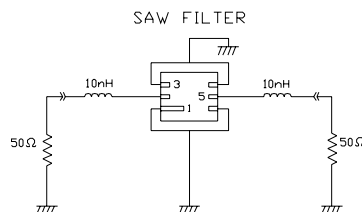
K	3												
Month code													
Month	1	2	3	4	5	6	7	8	9	10	11	12	
Month code	A	B	C	D	E	F	G	H	I	J	K	L	

e.g.: "K3" means November of 2003

X = Traceability code.

Pin No.	Function
1	Ground
2	Input
3	Ground
4	Ground
5	Output
6	Ground

4. TEST CIRCUIT



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4. RELIABILITY


- 4.1 Mechanical Shock: The components shall remain within the electrical specifications after three one-half sine shock pulses (3000g's for 0.3 ms) 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 +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 5×10^{-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 $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 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°C for 30 min \rightarrow 25°C for 20 seconds @ -40°C for 30 minutes) then 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°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.
- 4.9 Solderability: Solderability of terminal shall be kept at more than 80% after dipped in the solder flux at $230^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 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 ~ $+85^{\circ}\text{C}$ and in the humidity of 20 to 60% r.h.

5. REMARKS

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

5.2 Ultrasonic cleaning: Ultrasonic cleaning may cause deterioration of the component. Please avoid ultrasonic cleaning.

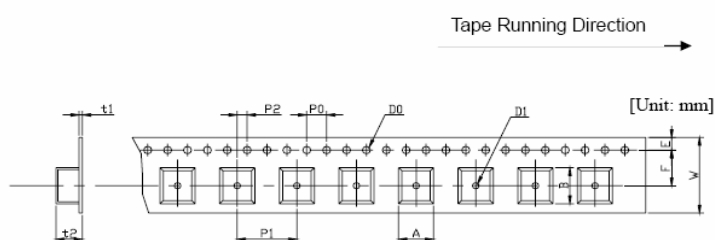
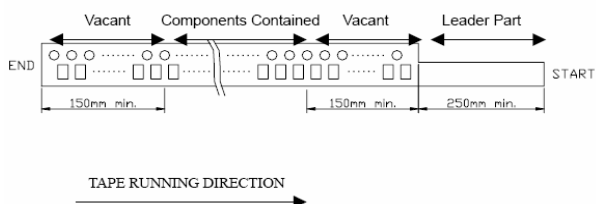
5.3 Soldering: Only terminals shall be soldered. Please avoid soldering another part of the component.

 ABRACON CORPORATION The Power Of Linking Together				TITLE AFS914.5W01-TS3 SMD SAW 914.5 MHz FILTER		
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Taping Structure

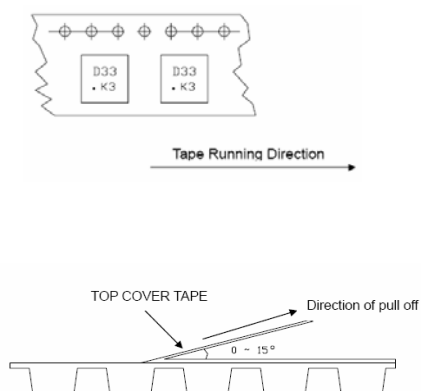
Diagram illustrating the components of a tape reel:

- TOP COVER TAPE**: The outermost layer of the tape reel.
- CARRIER TAPE**: The inner layer of the tape reel, which contains the individual components.



W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0	5.5	1.75	4.0	8.0	2.0	Φ 1.5	Φ 1.5	0.31	1.95	4.1	4.1
± 0.3	± 0.1	± 0.1	± 0.2	± 0.1	± 0.2	± 0.1	± 0.25	max.	max.	max.	max.

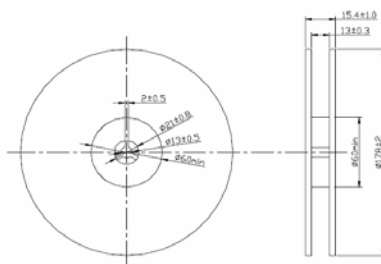
CARRIER TAPE



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

Device Name	
Type	
Quantity	
Lot No	

[Unit: nm]



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