

## APPROVAL SHEET

Approval Specification	Customer's Approval Certificate
	Please return this copy as a certification of
TO:	your approval
Part No.:	Checked & Approved by:
Customer's Part No.:	Date:
Customer's Part No.:	Date:

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Part No.	:	SF0718
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Approved by:	马拉上			

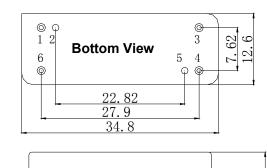
#### **Application**

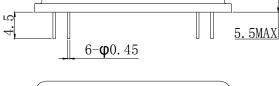
- High-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Passband 4.40 ~4.80MHz

#### **Features**

- RoHS compatible
- Package size 34.8x12.6x5.50mm<sup>3</sup>
- Package Code DIP3512
- Electrostatic Sensitive Device(ESD)

#### Package Dimensions (Unit: mm)







### Pin Configuration

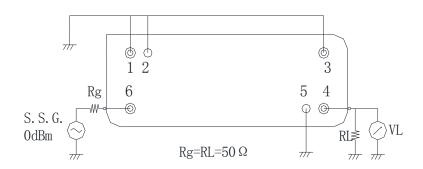
Pin No.	Description		
6	Input		
4	Output		
1,2,3,5	Ground		

#### **Marking Description**

S	Trademark	
F	SAW Filter	
0718	Part Number	
•	Pin 1	
YYWW	Year Code & Week Code	

\*Fig: If the products produced in 06<sup>th</sup> week of 2012, The year code & week code is 1206.

#### Test Circuit(Bottom View)



#### **Performance**

#### **Maximum Rating**

Item		Value	Unit
DC Voltage	V <sub>DC</sub>	3	V
Operation Temperature	Т	-40 ~ +85	${\mathbb C}$
Storage Temperature	T <sub>stg</sub>	-55 ~ +125	${\mathbb C}$
RF Power Dissipation	Р	10	dBm

#### **Electronic Characteristics**

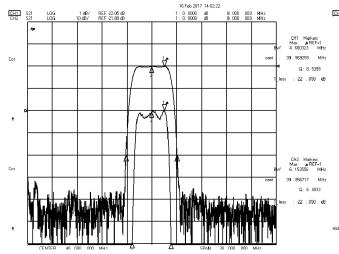
Test Temperature:  $25^{\circ}C \pm 2^{\circ}C$ 

Terminating source impedance:  $50\Omega$ Terminating load impedance:  $50\Omega$ 

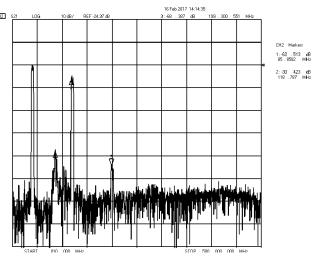
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		40.00		MHz
Insertion Loss(min)	IL		22.1	25.0	dB
Amplitude Ripple (p-p)	Δα		0.5	1.0	dB
6dB Bandwidth	BW <sub>6dB</sub>	4.40	4.68	4.80	MHz
40dB Bandwidth	BW <sub>40dB</sub>		6.15	6.50	MHz

#### **Frequency Characteristics**

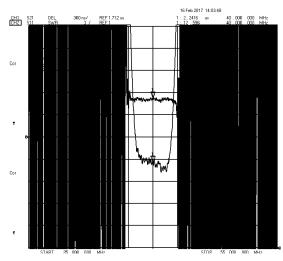
#### Frequency Response



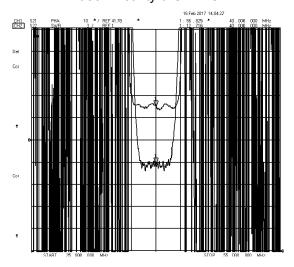
#### Frequency Response (wideband)



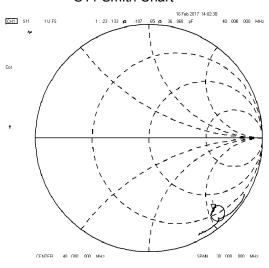
#### Delay Ripple & S11 VSWR



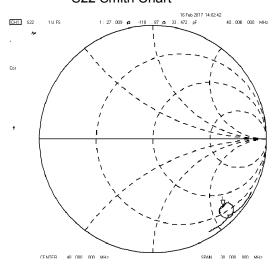
Phase Linearity & S22 VSWR



#### S11 Smith Chart



S22 Smith Chart

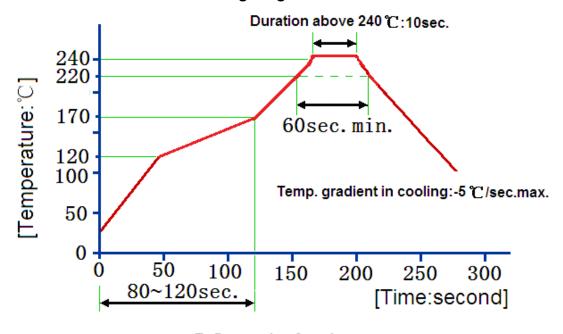


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#### Reliability (The SAW components shall remain electrical performance after tests)

No.	Test item	Test condition		
1	Temperature	(1) Temperature: 85℃±2℃, Duration: 250h, Recovery time: 2h±0.5h		
I	Storage	(2) Temperature: –55°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h		
2	Humidity Test	Conditions: 60°C±2°C , 90~95% RH Duration: 250h		
3	Thermal Shock	Heat cycle conditions: TA=-55°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch		
3	THEITHAI SHOCK	time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.		
4	4 Vibration Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm		
		Directions: X,Y and Z Duration: 2h		
5	Drop Test	Cycle time: 10 times Height: 1.0m		
		Temperature: 245°C±5°C Duration: 3.0s5.0s		
6	Solder Ability Test	Depth: DIP2/3 , SMD1/5		
		(1)Thickness of PCB:1mm , Solder condition: 260 ℃±5 ℃ , Duration: 10±1s		
7	Resistance to Soldering Heat	(2)Temperature of Soldering Iron: 350℃±10℃,Duration: 3~4s,		
		Recovery time: 2 ± 0.5h		

#### **Recommended Reflow Soldering Diagram**



Reflow cycles:3 cycles max.

SF0718

#### **Notes**

- 1. As a result of the particularity of inner structure of SAW products, it easy to be breakdown by electrostatic, so we should pay attention to **ESD protect** in the test.
- 2. **Static voltage** between signal load and ground may cause deterioration and destruction of the component. Please avoid static voltage.
- 3. **Ultrasonic cleaning** may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
- 4. Only leads of component may be soldered. Please avoid soldering another part of component.
- 5. There is a close relationship between the device's performance and **matching network**. The specifications of this device are based on the test circuit shown above. L and C values may change depending on board layout. Values shown are intended as a guide only.