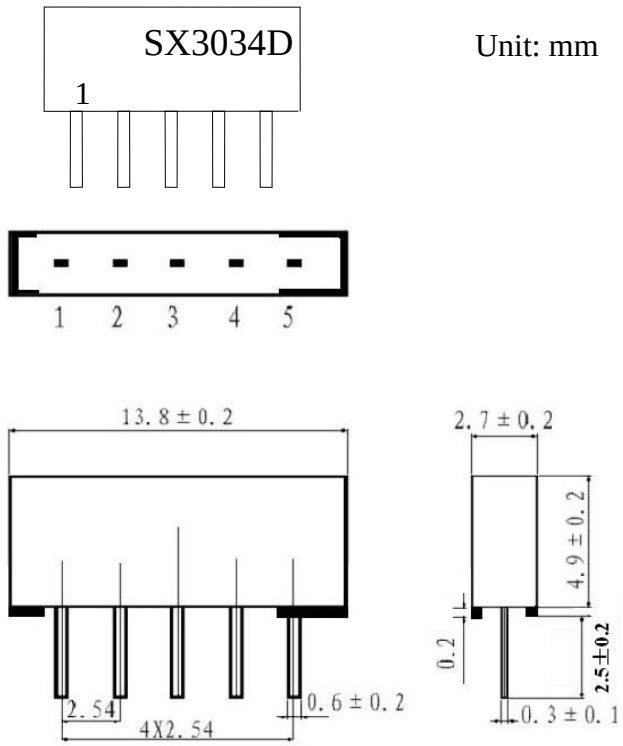
Range:

This specification shall cover the characteristics of SAW filter with Strong's P/N: SX3034D

1.Package Dimension



Unit: mm

Pin No.	Functions
1.	Input
2.	Input-Ground
3.	Chip carrier-Ground
4.	Output
5.	Output

2. Marking

S . Trademark

X3034D . Model

1 . Pin 1

Standard color: Black

3. Performance

3.1 Part No:SX3034D

3.2 Use: IF Filter for digital TV

3.3 MAXIMUMRATINGS

DC voltage	V_{DC}	12	V	Between any terminals
AC voltage	V_{PP}	10	V	Between any terminals
Operating Temperature Range	T_A	-25~65	℃	
Storage Temperature Range	T_{stg}	-40~85	℃	

3.4 Electronic Characteristics

Reference temperature: Ta=25℃

Terminating source impedance Z_S=50Ω

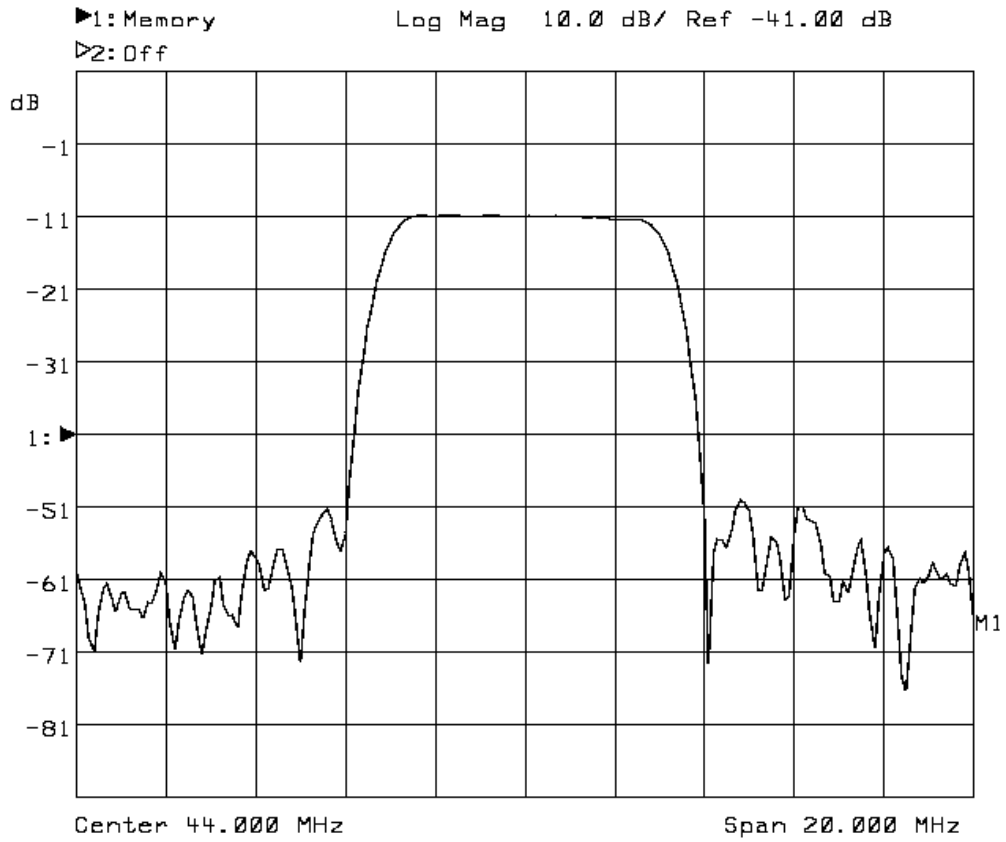
Terminating load impedance Z_L=2kΩ//3 pF

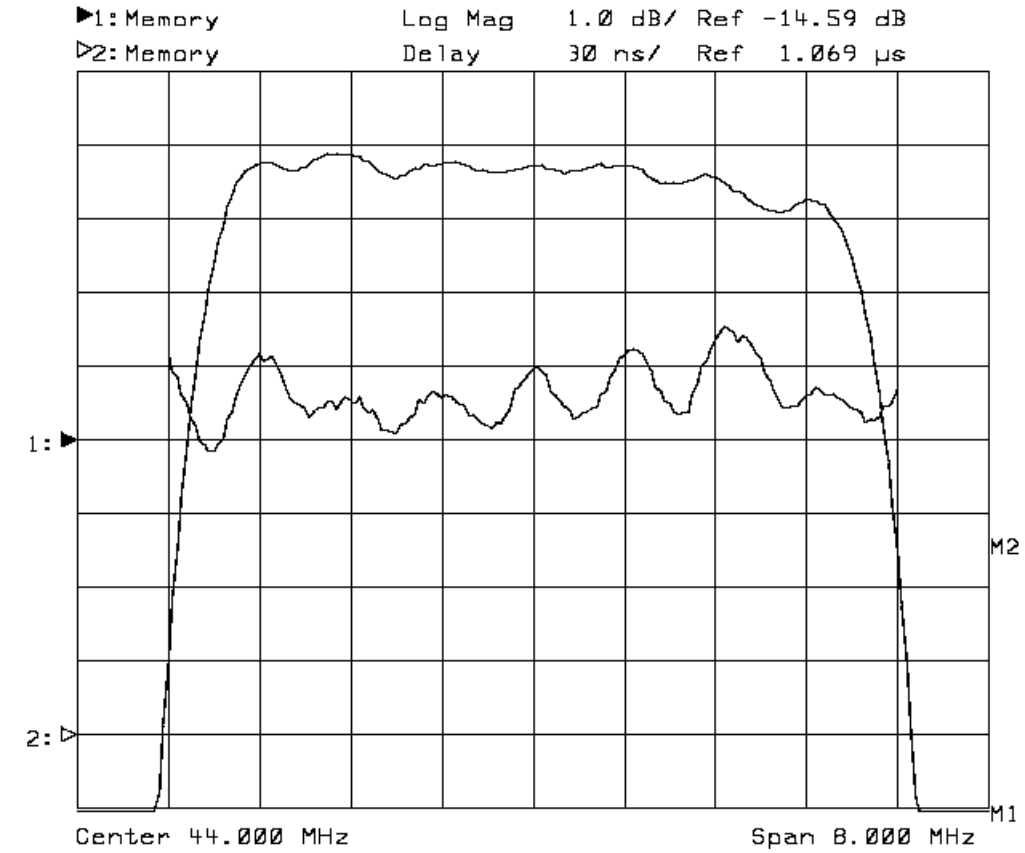
3.4.1.Amplitude Characteristics

Attenuation (ref. : 44.06 MHz):

	MIN.	TYP.	MAX.	
41.53 MHz	-0.7	0.3	1.3	dB
46.59 MHz	-0.6	0.4	1.4	dB
41.06 MHz	1.2	2.7	4.2	dB
47.06 MHz	1.5	3.0	4.5	dB
47.31 MHz	5.5	8.5	11.5	dB
39.81 MHz	37.0	43.0	-	dB
Lower side lobe 35.06-39.81 MHz	35.0	40.0	--	dB
Upper side lobe 48.06-55.06 MHz	37.0	40.0	-	dB
Reflected Wave Signal Suppression	42.0	52.0		dB
Feed through Signal Suppression	50.0	56.0		dB
Group delay ripple 41.31 … 46.69 MHz	-	60	-	ns
Impedance at 44.0 MHz Input Impedance Output Impedance	-	 1.4‖16.0 1.0‖5.7	-	 KΩ‖pF KΩ‖pF
Temperature Coefficient of frequency	-	-72.0	-	ppm/K

3.5 Frequency Characteristics





4 Test Circuit

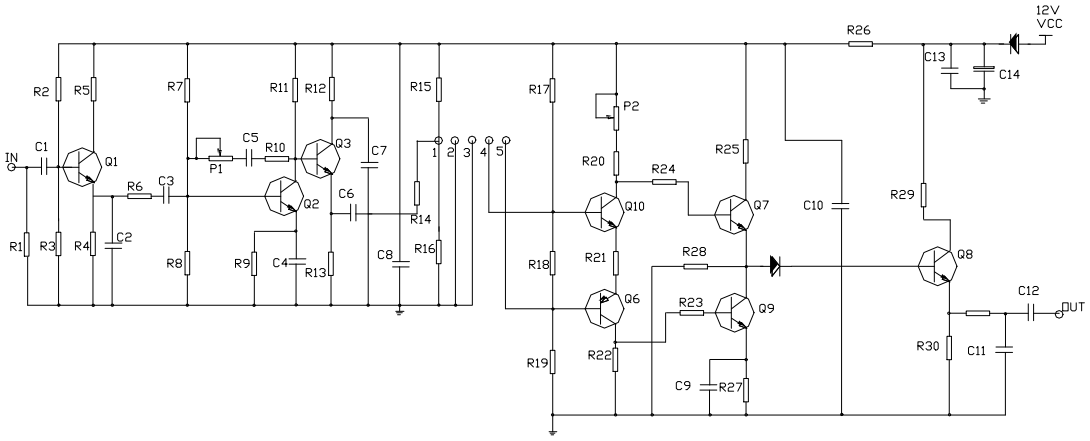


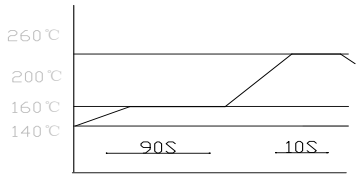
Fig.1 Test Circuit

5 ENVIRONMENTAL CHARACTERISTICS

5.1 Humidity, temperature Test

ITEM	REQUIREMENT	JUDGEMENT
High temperature storage	T=+85±2℃ Duration time 500H Being placed in natural condition for 2±.5hours	1.No visible damage clear marker 2. Other electric characteristics should be fit for the provided characteristics in the form 3.4 after testing
Low temperature storage	T= -40±3℃ Duration time 500H Being placed in nature condition for 2±5hours	
High-low temperature cycle	It shall be placed at temperature of -40℃±3℃ for 30 minutes, then within 3 minutes replaced at temperature of +85℃±2℃ for 30 minutes, and vice versa. Totally cycle 100 times. It shall be placed in natural condition for 2±0.5 hours.	
Humidity resistance test	T=60℃±2℃, RH=90~95% Duration time 500H.Being placed in natural condition for 2± 0.5 hours	

5.2 Solder-heat Resistance Test

ITEM	REQUIREMENT	JUDGEMENT
Solder-heat Resistance	1. Soldering trough: The 1mm thick PCB fixed with device are immersed in solder trough of 260±5℃ for 10±1 seconds. And then it shall be measured after being placed in natural condition for2±0.5 hours. 2. Manual soldering with electrical soldering iron: T=350±10℃ for 3-4 seconds. And then it shall be measured after being placed in natural condition for 2± 0.5hours	Same as judgement of 5.1
Solderability	Lead terminals are immersed in solder bath of 245±5℃ for 3-5 seconds.	The solder shall cover at least 80% of the lead terminal
Reflow soldering	Repeated 3 times after being on PCB under following condition: 	Same as judgement of 5.1

5.3 Mechanical Test

ITEM	REQUIREMENT	JUGEMENT
Vibration Fatigue and terminal Strength test	Force 10±1seconds of 19.6N applied to each terminal in axial direction. Lead terminals shall be folded up to 45° with 5N force, then folded back to their axial direction 2 times(except SMD) It shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55Hz of vibration frequency to each of 3 perpendicular directions for 2 hours.	Same as judgement of 5.1
Drop test	It shall be measured after 10 times random drop from the height of 1 m onto the 20mm thicker hard wood floor.	
Mechanical Shock	The components shall remain within the electrical specifications after 1000 shocks, acceleration 392 m/s^2, duration 6 milliseconds.	