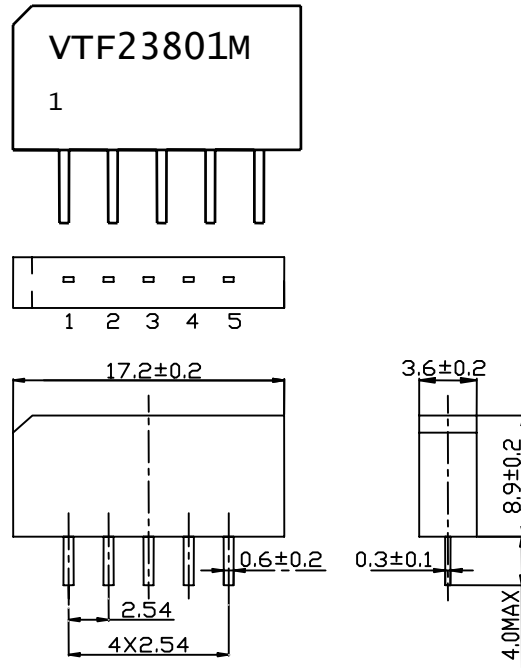


## 1. Package Dimension (SIP5K)



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

## 2. Marking

VTF  
23801M

## 3. Performance

3.1 Part No: VTF23801M

3.2 Use: TV. Inter-carrier Filter

### 3.3 MAXIMUM RATINGS

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		

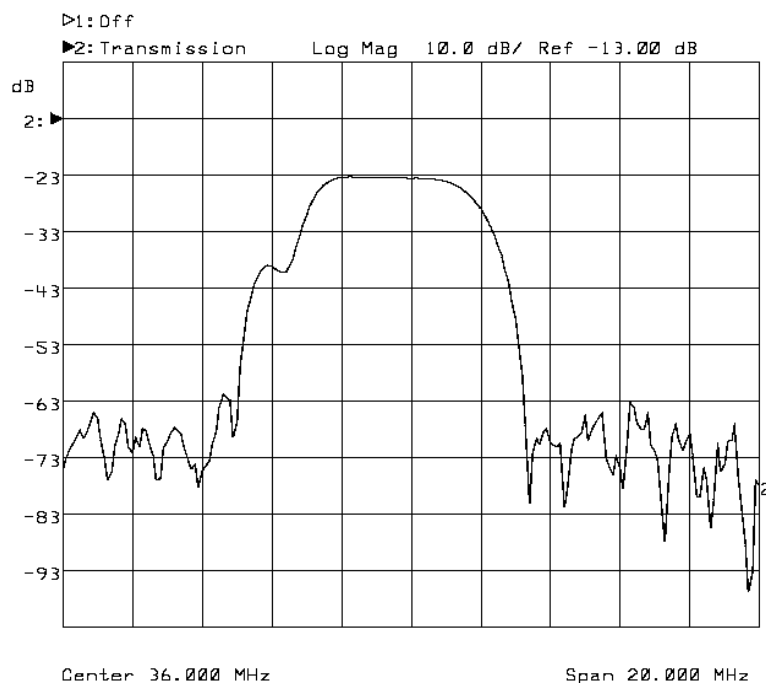
### 3.4 Electronic Characteristics

Reference temperature:  $T_a=25$   
 Terminating source impedance  $Z_S=50$   
 Terminating load impedance  $Z_L=2k // 3 \text{ pF}$

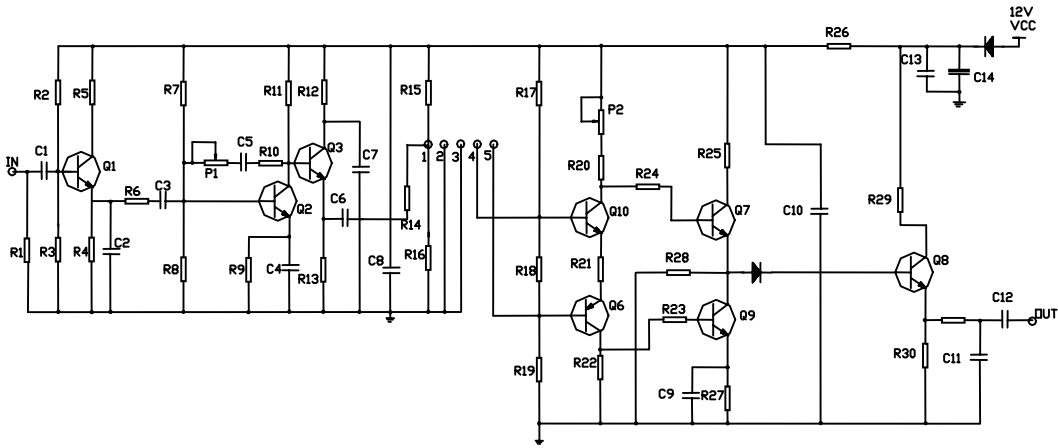
## 3.4.1. Amplitude Characteristics

	MAX.	TYP.	MIN.	
Insertion attenuation Reference level for the Following data 36.5 MHz	20.5	18.5	16.5	dB
38.00 MHz	-3.5	-5.0	-6.5	dB
33.57 MHz	0.5	-1.0	-2.5	dB
32.50 MHz	-13.5	-16.0	-18.5	dB
31.50 MHz	-16.0	-19.0	-22.0	dB
31.00 MHz	-35.0	-42.0	-	dB
30.00 MHz	-42.0	-50.0	-	dB
39.50 MHz	-40.0	-48.0	-	dB
Lower side lobe 25.00 to 30.00 MHz	-36.0	-42.0	-	dB
Upper side lobe 39.50 to 45.00 MHz	-33.0	-38.0	-	dB
Group delay ripple Reference frequency 38.0 MHz	-	50	-	ns
Impedance at 36.50 MHz				
Input Impedance	-	3.0   10.8	-	k $\Omega$   pF
Output Impedance	-	3.6   2.7	-	k $\Omega$   pF
Temperature Coefficient of frequency	-	-72.0	-	ppm/K

## 3.5 Frequency Characteristics



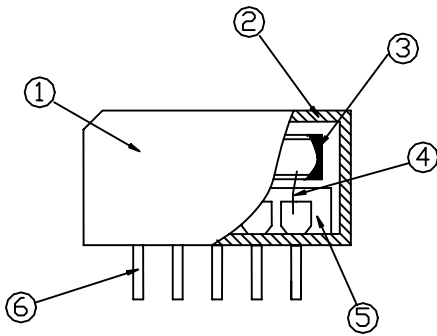
3.6 Test Circuit



4. Inside Structure

No.	PART NAME	MATERIAL
1	Shell	PPS
2	Insulation Material	Epoxy
3	Base Board	LiNbo3
	Sound-absorbing material	Resin
	Binder	Epoxy
	Electrode	Al
4	Joint wire	Si+Al
5	Tube Pedestall	Cu+Au
6	Lead	Cu+Au

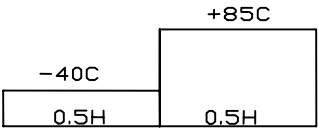
4 ENVIRONMENTAL CHARACTERISTICS

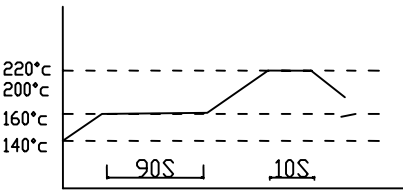


5.1 Humidity, temperature Test

5.2 Temperature Cycle, Soldering heat Test

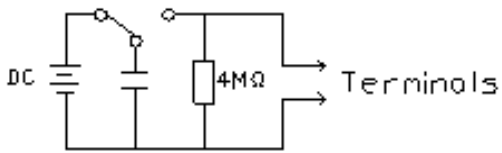
ITEM	REQUIREMENT	JUDGEMENT
------	-------------	-----------

Temperature Shock	<p>It shall be placed at temperature of -40 for 30 minutes, then replaced at temperature of +85 for 30 minutes. It shall be placed in natural condition for 1 hour.</p> 	Same as judgement of 5.1
Soldering Heat	<p>1 . Lead terminal are immersed up to 1mm from it's body in solder of 260 5 for 10 seconds. And then it shall be measured after being placed in natural condition for 1 hour.</p> <p>2 . Lead terminals are immersed in soldering bath of 350 10 for 3 seconds. And then it shall be measured after being placed in natural condition for 1 hour.</p>	Same as judgement of 5.1
Soldering Ability	Lead terminals are immersed in soldering bath of 230 5 for 5 seconds.	The solder shall coat at least 95% of the lead terminal

Repeatedly Heat	<p>Repeated 3 times after being on circuit board under following condition:</p> 	Same as judgement of 5.1
-----------------	---	--------------------------

### 5.3 Mechanical Test

5.4 Other Test

ITEM	REQUIREMENT	JUDGEMENT
ITEM	REQUIREMENT	JUDGEMENT
Vibration	It shall be measured after being applied vibration of amplitude of 1.5mm with 600 to 3300 rpm of vibration frequency to each of 3 perpendicular directions for 2 hours.	Same as judgement of 5.1
Random	It shall be measured after 3 times random drop from the height of 1 m on maple floor.	
Terminal Pulling	Force 10 seconds of 1 kg applied to each terminal in axial direction.	No unusual
Terminal Bending	Lead terminals shall be folded up to 45° with 3 kg force, then folded back to their axial direction 2 times	
Amplitude Test	<p>Link following circuit, use capacitance after being charged to discharge between terminals</p>  <p>C:200PF      Voltage:200V C:1000PF    Voltage:100V</p>	Same as judgement of 5.1

