

## SURFACE ACOUSTIC WAVE FILTER

1. APPLICATION: TV IF FILTER

2. SYSTEM: D/K, B/G, M/N

3. MODEL: VTF738901M

#### 4. ELECTRICAL CHARACTERISTICS

4-1 Characteristics in D/K, B/G Mode (switching pin 2 connected to ground )

|                        |           |               |
|------------------------|-----------|---------------|
| Insertion Loss:        | 37.40Hz   | STD 2dB       |
| Relative Attenuation:  |           |               |
| fp-8                   | 30.90 MHz | -43.0 dB Max. |
| fp-7                   | 31.90 MHz | -36.0 dB Max. |
| fp-5                   | 32.40 MHz | -19.5 2.0 dB  |
| fp-4                   | 33.40 MHz | -17.2 2.0 dB  |
| fp-2.93                | 34.47 MHz | -1.0 2.0 dB   |
| fp                     | 38.90 MHz | -5.6 1.0 dB   |
| fp+1.5                 | 40.40 MHz | -40.0 dB Max. |
| fp+2.5                 | 41.40 MHz | -39.0 dB Max. |
| Outband Rejection:     |           |               |
| 25.00 MHz to 30.90 MHz |           | -35.0 dB Max. |
| 40.40 MHz to 45.00 MHz |           | -33.0 dB Max. |

4-2 Characteristics in M/N Mode (switching pin 2 connected to pin 1)

|                        |           |               |
|------------------------|-----------|---------------|
| Insertion Loss:        | 37.40 MHz | STD 2 dB      |
| Relative Attenuation:  |           |               |
| fp-6                   | 32.90 MHz | -39.0 dB Max. |
| fp-4.5                 | 34.40 MHz | -17.0 2.0 dB  |
| fp-3.58                | 35.32 MHz | -0.6 2.0 dB   |
| fp                     | 38.90 MHz | -6.8 2.0 dB   |
| fp+1.5                 | 40.40 MHz | -40.0 dB Max. |
| Outband Rejection:     |           |               |
| 25.00 MHz to 32.90 MHz |           | -35.0 dB Max. |
| 40.40 MHz to 45.00 MHz |           | -30.0 dB Max. |

4-3 Temperature Coefficient of Center Frequency: -75 ppm/ Max.

4-4 Maximum DC voltage: 10V DC.

4-5 Operating Temperature Range: -10 to +70

4-6 Storage Temperature Range: -20 to +80

#### 5. RELIABILITY TEST

5-1 Mechanical Shock

The components shall remain within the electrical specifications after 1000 shocks, acceleration  $392 \text{ m/s}^2$ , duration 6 milliseconds.

5-2 Vibration Fatigue

The components shall remain within the electrical specifications after loaded vibration

of 600 rpm to 3300 rpm, amplitude 1.5 mm, x, y, z, direction for 2 hours.

5-3 Terminal Strength

The components shall remain within the electrical specifications after pulled 2 kgs

weight for 10 seconds towards an axis of each terminal.

### 5-4 High Temperature Storage

The components shall remain within the electrical specifications after being kept at the

85 ambient temperature for 96 hours, then kept at room temperature for 2 hours.

### 5-5 Low Temperature Storage

The components shall remain within the electrical specifications after being kept at the

-25 for 96 hours, then kept at room temperature for 2 hours.

### 5-6 Humidity Test

The components shall remain within the electrical specifications after being kept at

the condition of ambient temperature 40 , and 90 to 95% RH for 96 hours, then kept at

room temperature and normal humidity for 2 hours.

### 5-7 Thermal Shock

The components shall remain within the electrical specifications after 10 cycles of Heat-

Cycles-Testing (one cycle: -25 for 20 minutes, then 85 for 20 minutes), then kept at room temperature for 2 hours.

### 5-8 Solder-heat Resistance

The components shall remain within the electrical specifications after dipped in the solder at 260 for 10 1 seconds, then kept at room temperature for 2 hours.

(Terminal must be dipped leaving 1.5 mm from the case.)

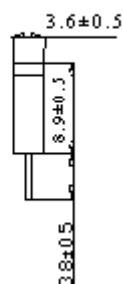
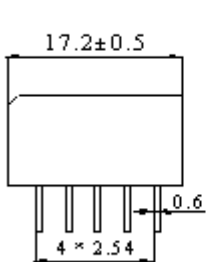
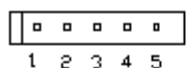
### 5-9 Solderability

Solderability of terminals shall be kept at more than 90% after dipped in the solder flux

at 235 5 for 2 0.5 seconds.

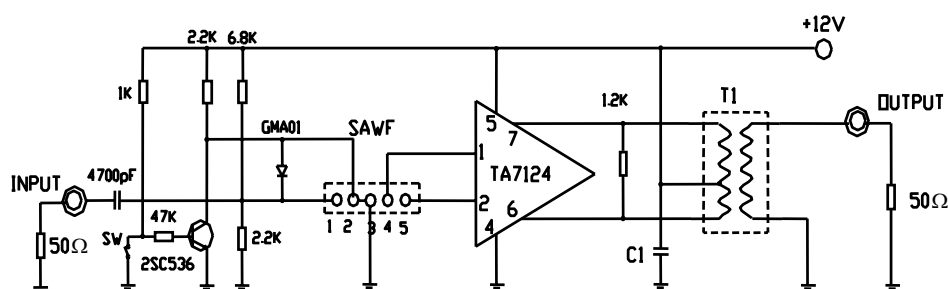
## 6. PACKAGE DIMENSION

Unit: mm

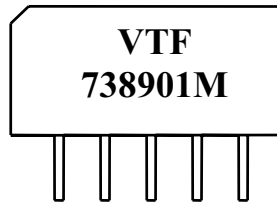


1. INPUT
2. SWITCHING INPUT
3. GROUND
4. OUTPUT
5. OUTPUT

## 7. MEASUREMENT CIRCUIT



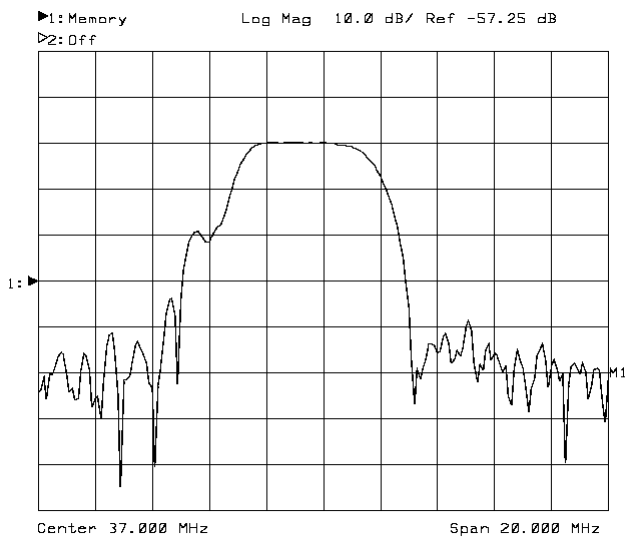
8. MARKING



VTF738901M MODEL  
1 . Pin 1

9. FREQUENCY RESPONSE

D/K B/G CHANNEL



M/N CHANNEL

