

# SF-090201-S27

ISM-Band, RF SAW Filter  
Revision 0: April 2017



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## □ Electrical Characteristics

### Maximum Ratings

| Parameters Description                       | Unit     | Minimum | Typical   | Maximum |
|----------------------------------------------|----------|---------|-----------|---------|
| Operating Temperature Range                  | °C       | -40     | -         | +105    |
| Storage Temperature Range                    | °C       | -40     | -         | +105    |
| Maximum DC Voltage                           | V        | -       | -         | 6       |
| Maximum Input Power                          | dBm      | -       | -         | 10      |
| Source Impedance (unbalanced) <sup>(1)</sup> | $\Omega$ | -       | 50        | -       |
| Load Impedance (unbalanced) <sup>(1)</sup>   | $\Omega$ | -       | 50        | -       |
| Package type & size                          | S27      |         |           |         |
| Length x Width                               | -        | -       | 3.0 x 3.0 | -       |
| Height                                       | mm       | -       | -         | 1.4     |

**Electrical Specification**

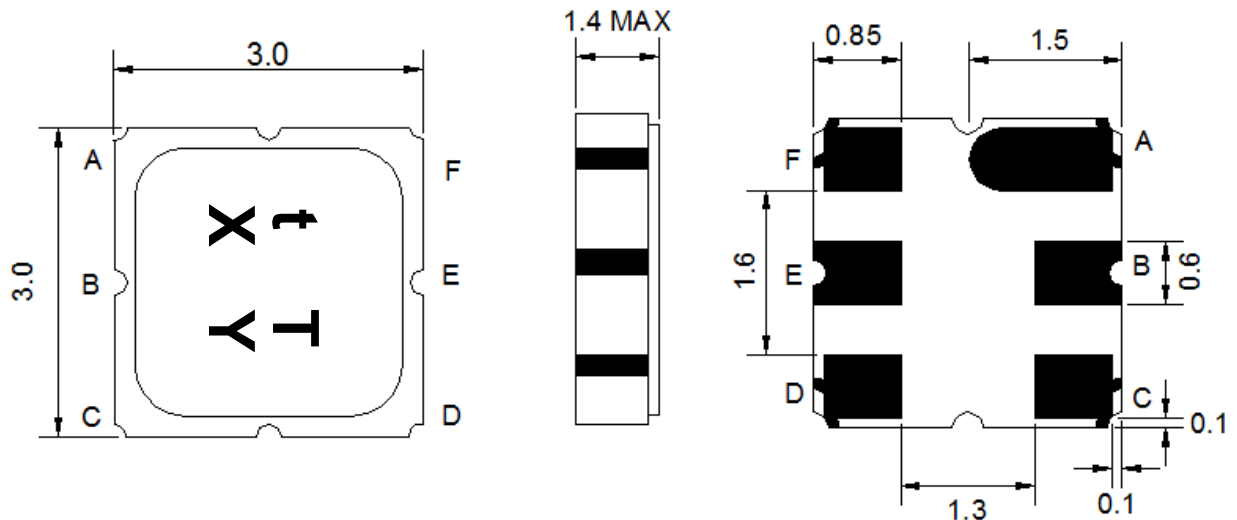
| Parameters Description                                     | Unit | Minimum | Typical | Maximum |
|------------------------------------------------------------|------|---------|---------|---------|
| <b>Center Frequency (Fo)</b>                               | MHz  | -       | 902.875 | -       |
| <b>Minimum insertion loss</b> $IL_{(min)}$                 |      |         |         |         |
| <b>Exclude loss in matching elements</b> *1)               | dB   | -       | 2.4     | 3.6     |
| <b>Incl. loss of matching elements(Q=89)</b> *2)           | dB   | -       | 3.4     | 4.6     |
| <b>Passband (relative to <math>IL_{min}</math>)</b> *1)    |      |         |         |         |
| <b>902.20 ~ 903.55 MHz</b>                                 | dB   | -       | 1.5     | 3.0     |
| <b>902.10 ~ 903.65 MHz</b>                                 | dB   | -       | 2.0     | 5.0     |
| <b>Attenuation (relative to <math>IL_{min}</math>)</b> *1) |      |         |         |         |
| <b>10.0 ~ 820.0 MHz</b>                                    | dB   | 47      | 53      | -       |
| <b>820.0 ~ 884.0 MHz</b>                                   | dB   | 42      | 48      | -       |
| <b>884.0 ~ 892.0 MHz</b>                                   | dB   | 37      | 43      | -       |
| <b>892.0 ~ 900.5 MHz</b>                                   | dB   | 15      | 21      | -       |
| <b>906.0 ~ 910.5 MHz</b>                                   | dB   | 15      | 21      | -       |
| <b>910.5 ~ 929.0 MHz</b>                                   | dB   | 22      | 28      | -       |
| <b>929.0 ~ 945.0 MHz</b>                                   | dB   | 38      | 44      | -       |
| <b>945.0 ~ 1000.0 MHz</b>                                  | dB   | 41      | 47      | -       |
| <b>1000.0 ~ 2000.0 MHz</b>                                 | dB   | 37      | 43      | -       |
| <b>2000.0 ~ 2500.0 MHz</b>                                 | dB   | 55      | 66      | -       |

**Notes :** (1)With Matching Network (Ref. Testing Environment Circuit as shown below).

\*1) : The matching circuit is ideal by simulation.

\*2) : The matching circuit is real by actual passive components.  
0805 Coillcraft CS series chip conductor is used for inductor.  
0402 muRata GRM series is used for capacitor.

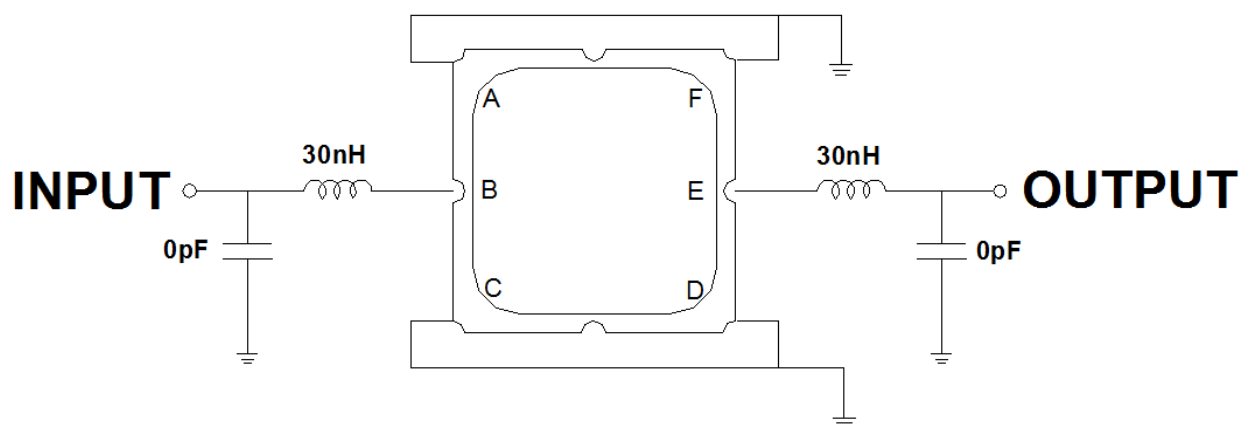
## Package Dimensions



| Marking Descriptions |                      |
|----------------------|----------------------|
| t                    | ISM-Band Application |
| T                    | Series Number        |
| X                    | Date Code(Year)      |
| Y                    | Date Code(Month)     |

| Pin Description |                 |
|-----------------|-----------------|
| A,C,D,F         | Ground          |
| B               | Input or Output |
| E               | Output or Input |

## Testing Environment



Source & Load Impedance: 50  $\Omega$

### □ Frequency Characteristics

#### Frequency Response



