

# SF-086915-S27

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



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## □ Electrical Characteristics

### Maximum Ratings

| Parameters Description                       | Unit     | Minimum | Typical   | Maximum |
|----------------------------------------------|----------|---------|-----------|---------|
| Operating Temperature Range                  | °C       | -40     | -         | +85     |
| Storage Temperature Range                    | °C       | -40     | -         | +85     |
| 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**

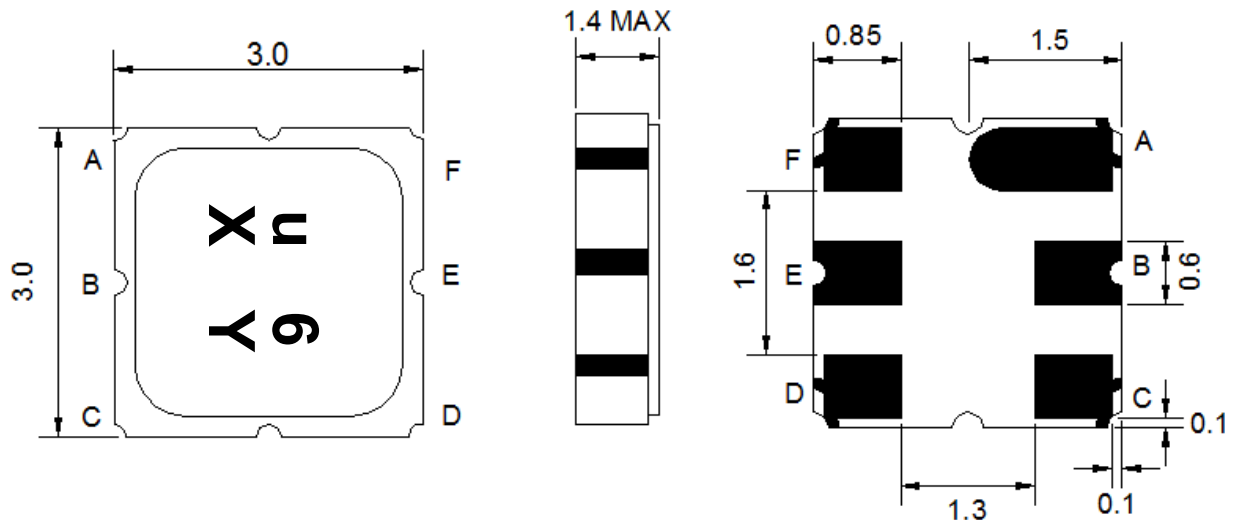
| Parameters Description                               | Unit | Minimum | Typical | Maximum |
|------------------------------------------------------|------|---------|---------|---------|
| Center frequency <b>Fc</b>                           | MHz  | -       | 869.6   | -       |
| 3dB BW                                               | MHz  | -       | 2.0     | -       |
| Minimum insertion loss <b>IL<sub>(min)</sub></b>     |      |         |         |         |
| Exclude loss in matching elements <b>*1)</b>         | dB   | -       | 2.4     | 3.4     |
| Incl. loss of matching elements(Q=91) <b>*2)</b>     | dB   | -       | 2.7     | 3.7     |
| Passband (relative to IL <sub>min</sub> ) <b>*1)</b> |      |         |         |         |
| 869.10 ~ 870.1 MHz                                   | dB   | -       | 0.4     | 3.0     |
| Attenuation (relative to IL <sub>min</sub> )         |      |         |         |         |
| 15.0 ~785.0 MHz                                      | dB   | 45      | 52      | -       |
| 785.0 ~ 850.0 MHz                                    | dB   | 38      | 46      | -       |
| 850.0 ~ 858.0 MHz                                    | dB   | 36      | 42      | -       |
| 858.0 ~ 867.0 MHz                                    | dB   | 16      | 26      | -       |
| 873.0 ~ 878.0 MHz                                    | dB   | 16      | 23      | -       |
| 878.0 ~ 896.0 MHz                                    | dB   | 20      | 26      | -       |
| 896.0 ~ 912.0 MHz                                    | dB   | 36      | 42      | -       |
| 912.0 ~ 1000.0 MHz                                   | dB   | 39      | 45      | -       |
| 1000.0 ~ 2000.0 MHz                                  | dB   | 40      | 46      | -       |
| 2000.0 ~ 2500.0 MHz                                  | dB   | 55      | 72      | -       |

**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 Coilcraft CS series chip conductor is used for inductor.  
 0402 muRata GRM series is used for capacitor

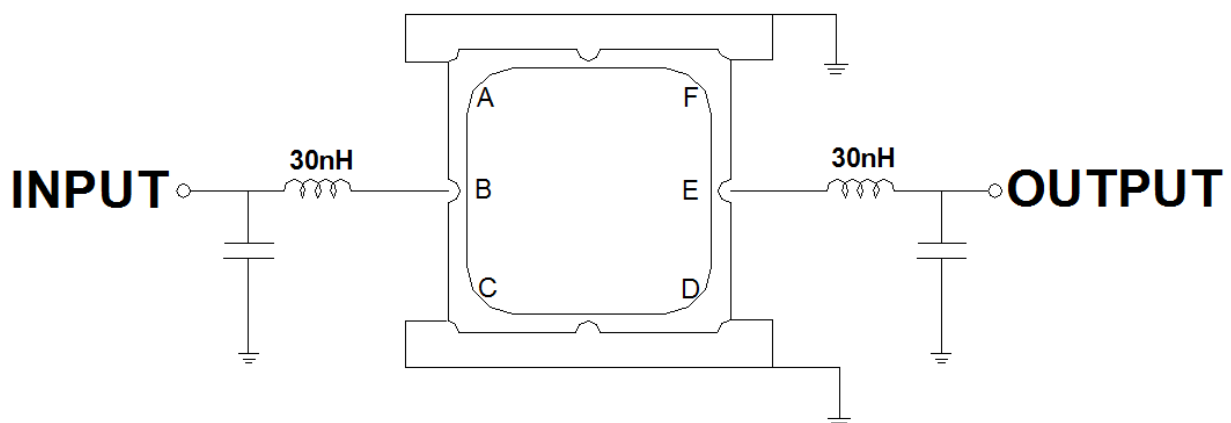
## **Package Dimensions**



| Marking Descriptions |                      |
|----------------------|----------------------|
| u                    | ISM-Band Application |
| 6                    | Series Number        |
| X                    | Date Code(Year)      |
| Y                    | Date Code(Month)     |

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

## **Testing Environment**



Source & Load Impedance: 50  $\Omega$

### Frequency Characteristics

#### Frequency Response

