

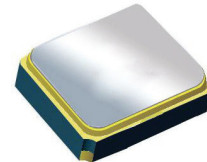
# Surface Mount 722.00MHz SAW Filter

AFS14A11-722.00-T2

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable



RoHS  
Compliant



1.4 x 1.1 x 0.7 mm

## FEATURES:

- 1.4 x 1.1 x 0.7 mm low profile SMT package
- Low Insertion loss
- Excellent selectivity with high out-of-band rejection

## APPLICATIONS:

- Wireless Communication
- Remote Control
- Cellular Phones

## ELECTRICAL SPECIFICATIONS:

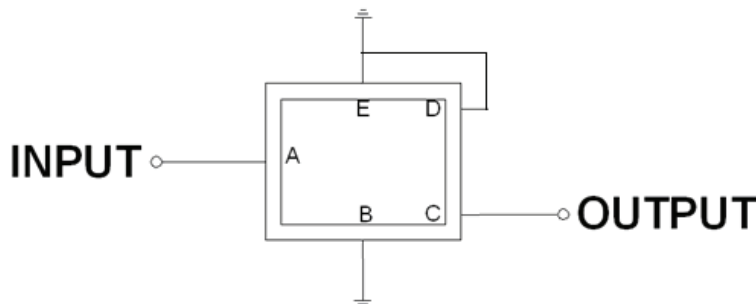
### Maximum Ratings

| Item                        | Value           |
|-----------------------------|-----------------|
| Input Power Level           | +15 dBm max.    |
| DC Permissive Voltage       | 3.0V DC max.    |
| Operating Temperature Range | -10°C to + 60°C |
| Storage Temperature Range   | -40°C to + 85°C |

| Parameters                                      | Minimum | Typical | Maximum | Units    | Notes                 |
|-------------------------------------------------|---------|---------|---------|----------|-----------------------|
| Center Frequency ( $f_c$ )                      |         | 722.00  |         | MHz      |                       |
| Insertion Loss (IL)                             |         | 2.1     | 2.8     | dB       | (716.29 ~ 727.71 MHz) |
| Effective Bandwidth                             |         | 11      |         | MHz      |                       |
| Amplitude Ripple                                |         | 0.4     | 1.2     | dB       | (716.29 ~ 727.71 MHz) |
| Group Delay Ripple                              |         | 35      | 80      | ns p-p   | (716.29 ~ 727.71 MHz) |
| Stop-band Attenuation<br>(Referenced to 0.0 dB) | 35      | 38      |         | dB       | 0.1 ~ 698.0MHz        |
|                                                 | 3       | 7       |         |          | 704 ~ 710MHz          |
|                                                 | 0.5     | 1.5     |         |          | 710 ~ 716MHz          |
|                                                 | 0.5     | 2.0     |         |          | 728 ~ 734MHz          |
|                                                 | 5       | 11.1    |         |          | 734 ~ 740MHz          |
|                                                 | 23      | 27      |         |          | 740 ~ 746MHz          |
|                                                 | 30      | 36      |         |          | 746 ~ 756MHz          |
|                                                 | 40      | 52      |         |          | 776 ~ 798MHz          |
|                                                 | 40      | 46      |         |          | 824 ~ 960MHz          |
|                                                 | 32      | 36      |         |          | 1575.0MHz             |
|                                                 | 30      | 34      |         |          | 1710 ~ 1785MHz        |
|                                                 | 25      | 33      |         |          | 1920 ~ 1980MHz        |
|                                                 | 20      | 26      |         |          | 2400 ~ 2484MHz        |
| Source Impedance ( $Z_s$ )                      |         | 50      |         | $\Omega$ | See note # 1          |
| Load Impedance ( $Z_L$ )                        |         | 50      |         | $\Omega$ | See note # 1          |

**Note #1:** No matching network required for operation into 50 $\Omega$ 's

## TEST CIRCUIT:

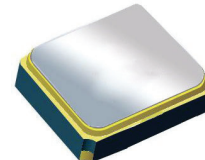


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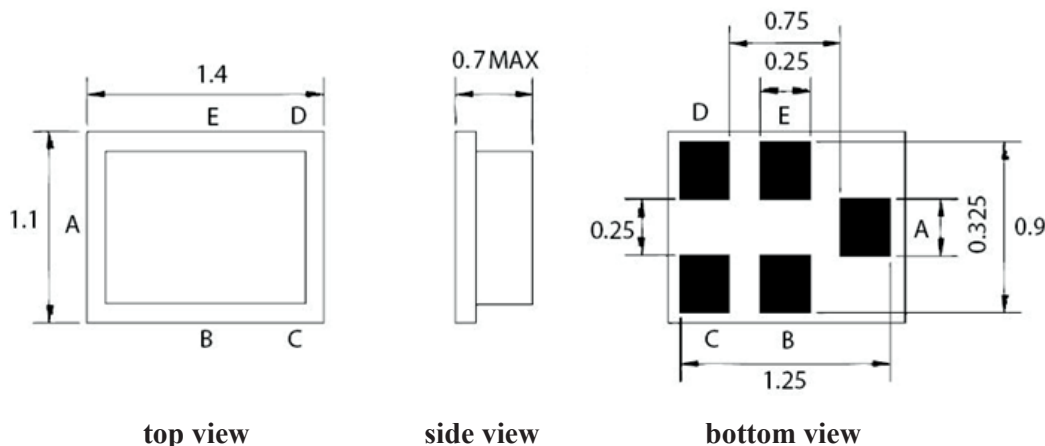


RoHS  
Compliant



1.4 x 1.1 x 0.7 mm

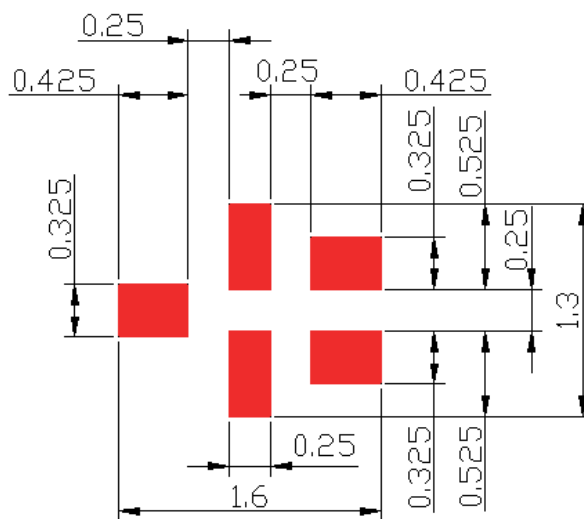
## OUTLINE DIMENSIONS:



|          |        |
|----------|--------|
| A:       | Input  |
| C:       | Output |
| B, D, E: | Ground |

Dimensions: mm

Recommended Land Pattern:



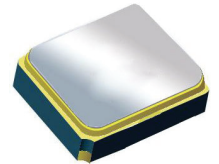
Dimensions: mm

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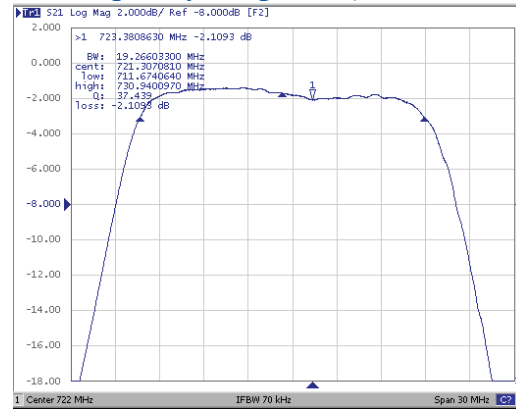
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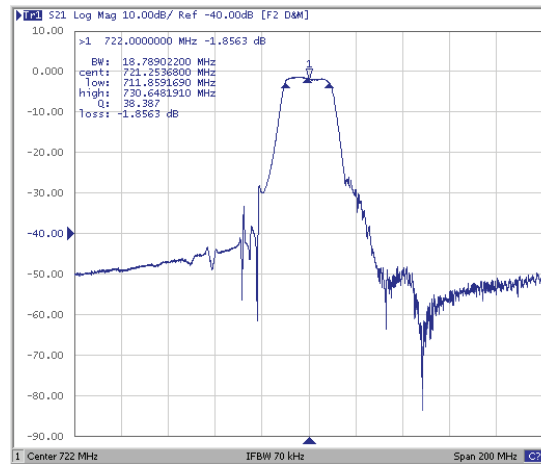
1.4 x 1.1 x 0.7 mm

## FREQUENCY CHARACTERISTICS:

### Filter Frequency Response (Narrowband)

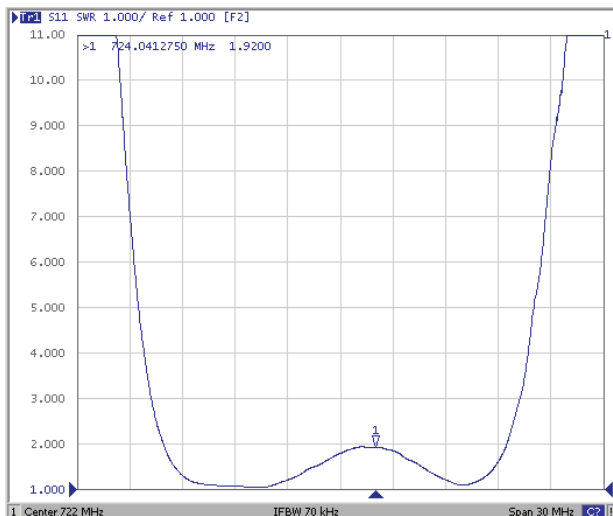


### Filter Frequency Response (Wideband)

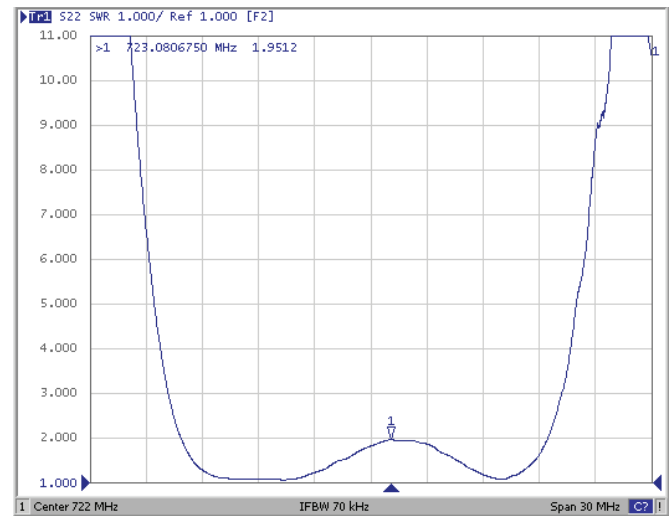


## REFLECTION FUNCTIONS:

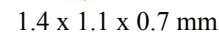
### S11



### S22



AFS14A11-722.00-T2

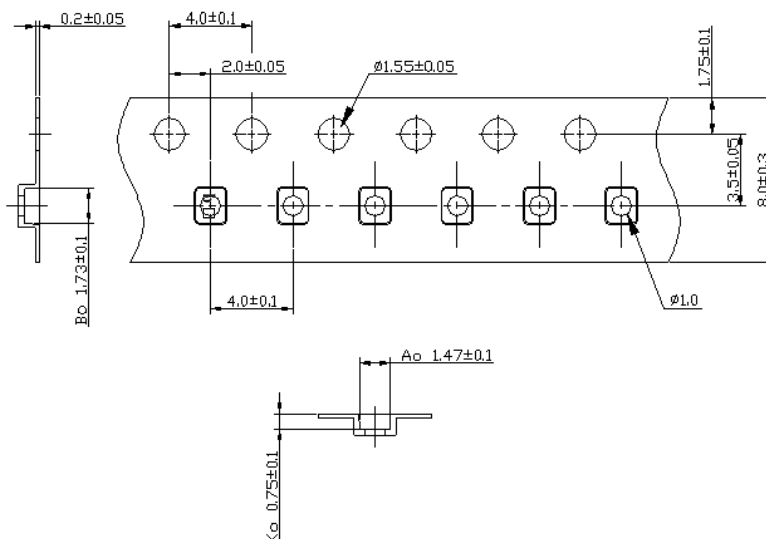


**RoHS**  
Compliant

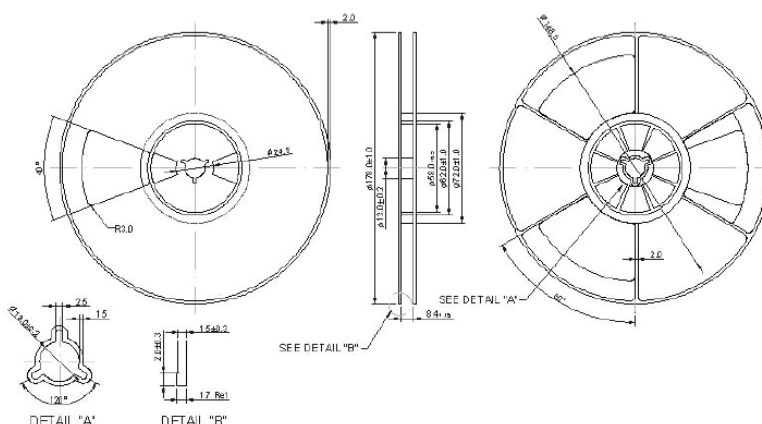
The graph plots Temperature (Deg C) on the y-axis (ranging from 20 to 280 in increments of 20) against Time (Sec) on the x-axis (ranging from 0 to 360 in increments of 20). The curve shows a non-linear increase in temperature over time, with a significant plateau between 40 and 100 seconds, followed by a peak around 220 seconds and a subsequent decrease.

| Time (Sec) | Temp (Deg C) |
|------------|--------------|
| 0          | 20           |
| 20         | 20           |
| 40         | 145          |
| 60         | 145          |
| 80         | 155          |
| 100        | 155          |
| 120        | 170          |
| 140        | 175          |
| 160        | 195          |
| 180        | 220          |
| 200        | 250          |
| 220        | 260          |
| 240        | 245          |
| 260        | 175          |
| 280        | 145          |
| 300        | 145          |
| 320        | 130          |
| 340        | 115          |
| 360        | 105          |

**Reel Count : 7" = 3k units**



**Dimensions: mm**



ABRACON IS  
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CERTIFIED



# ABRACON CORPORATION

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