

# 881.5 MHz SMD SAW Filter

ABSTS5A2-1CHM011M

Request Samples



Check Inventory



1.1 x 0.9 x 0.55 mm  
RoHS/RoHS II Compliant  
MSL Level = 3

## Features

- Low Insertion Loss
- High Out of Band Attenuation
- Usable bandwidth of 25MHz

## Applications

- Mobile Communications
- Cellular, CDMA systems
- Low loss Receive RF filter.

## Electrical Specifications

| Parameters                                                |                 | Specifications |       |     |
|-----------------------------------------------------------|-----------------|----------------|-------|-----|
|                                                           |                 | Min            | Typ   | Max |
| Nominal Center Frequency (Fc) (MHz)                       |                 |                | 881.5 |     |
| Insertion Loss (dB) (869.0 ~ 894.0 MHz)                   |                 |                | 1.3   | 1.8 |
| Amplitude Ripple (dB <sub>p-p</sub> ) (869.0 ~ 894.0 MHz) |                 |                | 0.3   | 1.1 |
| Input VSWR (869.0 ~ 894.0 MHz)                            |                 |                | 1.6   | 2.0 |
| Output VSWR (869.0 ~ 894.0 MHz)                           |                 |                | 1.6   | 2.0 |
| Attenuation (dB)                                          | 1 ~ 824 MHz     | 48             | 54    |     |
|                                                           | 824 ~ 849 MHz   | 46             | 51    |     |
|                                                           | 849 ~ 854 MHz   | 30             | 41    |     |
|                                                           | 909 ~ 979 MHz   | 20             | 27    |     |
|                                                           | 1710 ~ 1910 MHz | 40             | 45    |     |
|                                                           | 1920 ~ 2500 MHz | 35             | 41    |     |
|                                                           | 2500 ~ 6000 MHz | 30             | 36    |     |
| Terminating Source & Load Impedance (Ω)                   |                 |                | 50    |     |
| Maximum Input Power (dBm)                                 |                 |                |       | 10  |
| DC Voltage (V)                                            |                 |                |       | 0   |

## Mechanical Specifications

| Parameters       | Specifications      |
|------------------|---------------------|
| Filter Dimension | 1.1 x 0.9 x 0.55 mm |
| Mounting Type    | SMD Mount           |

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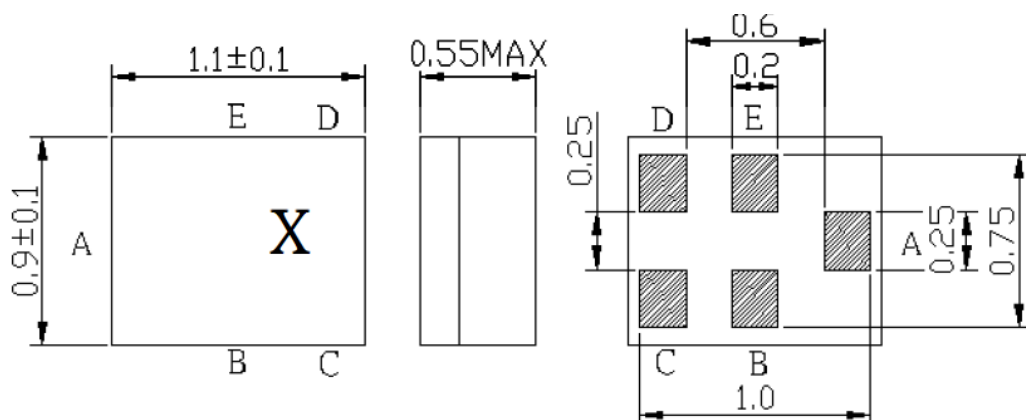


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## Environmental Specifications

| Parameters                  | Specifications        |
|-----------------------------|-----------------------|
| Operating Temperature Range | -30°C ~ +85°C         |
| Storage Temperature Range   | -40°C ~ +85°C         |
| MSL level                   | 3                     |
| ESD                         | 100V (MM), 200V (HBM) |

## Package Dimensions



## Marking Description

X: Date Code (Year + Month)

| Pin No. | Symbol | Function |
|---------|--------|----------|
| A       | IN     | Input    |
| B       | GND    | Ground   |
| C       | GND    | Ground   |
| D       | OUT    | Output   |
| E       | GND    | Ground   |

| YEAR/Month | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10       | 11       | 12       |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2013       | A        | B        | C        | D        | E        | F        | G        | H        | J        | K        | L        | M        |
| 2014       | N        | P        | Q        | R        | S        | T        | U        | V        | W        | X        | Y        | Z        |
| 2015       | a        | b        | c        | d        | e        | f        | g        | h        | j        | k        | l        | m        |
| 2016       | n        | p        | q        | r        | s        | t        | u        | v        | w        | x        | y        | z        |
| 2017       | <u>A</u> | <u>B</u> | <u>C</u> | <u>D</u> | <u>E</u> | <u>F</u> | <u>G</u> | <u>H</u> | <u>J</u> | <u>K</u> | <u>L</u> | <u>M</u> |
| 2018       | <u>N</u> | <u>P</u> | <u>Q</u> | <u>R</u> | <u>S</u> | <u>T</u> | <u>U</u> | <u>V</u> | <u>W</u> | <u>X</u> | <u>Y</u> | <u>Z</u> |
| 2019       | <u>a</u> | <u>b</u> | <u>c</u> | <u>d</u> | <u>e</u> | <u>f</u> | <u>g</u> | <u>h</u> | <u>j</u> | <u>k</u> | <u>l</u> | <u>m</u> |
| 2020       | <u>n</u> | <u>p</u> | <u>q</u> | <u>r</u> | <u>s</u> | <u>t</u> | <u>u</u> | <u>v</u> | <u>w</u> | <u>x</u> | <u>y</u> | <u>z</u> |

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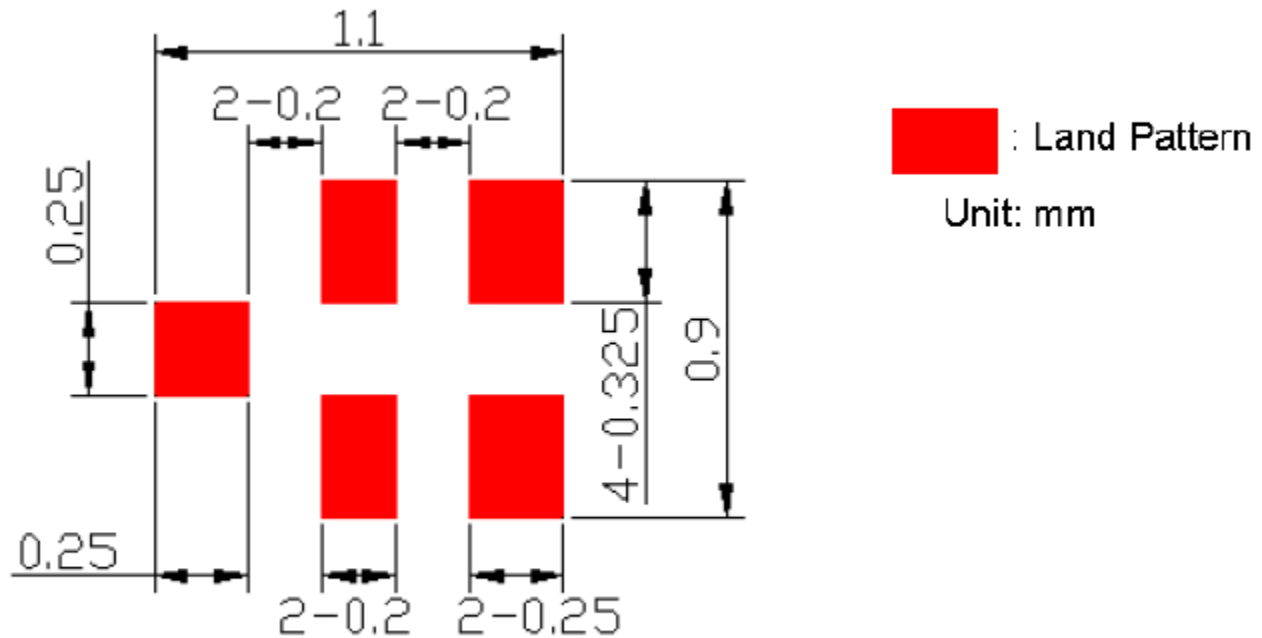


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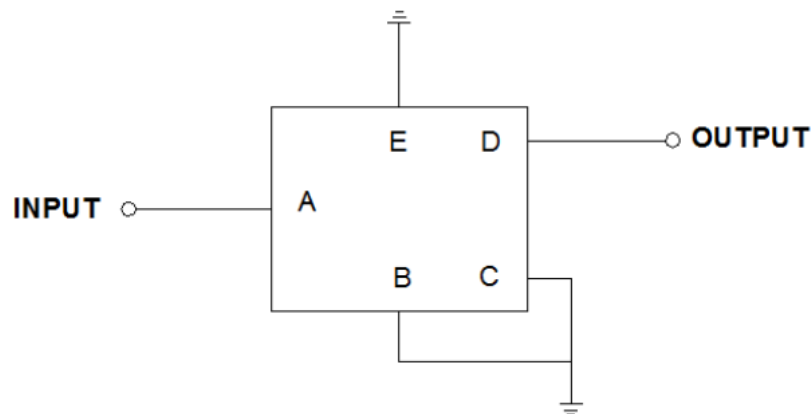


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## PCB Footprint



## Measurement Circuit



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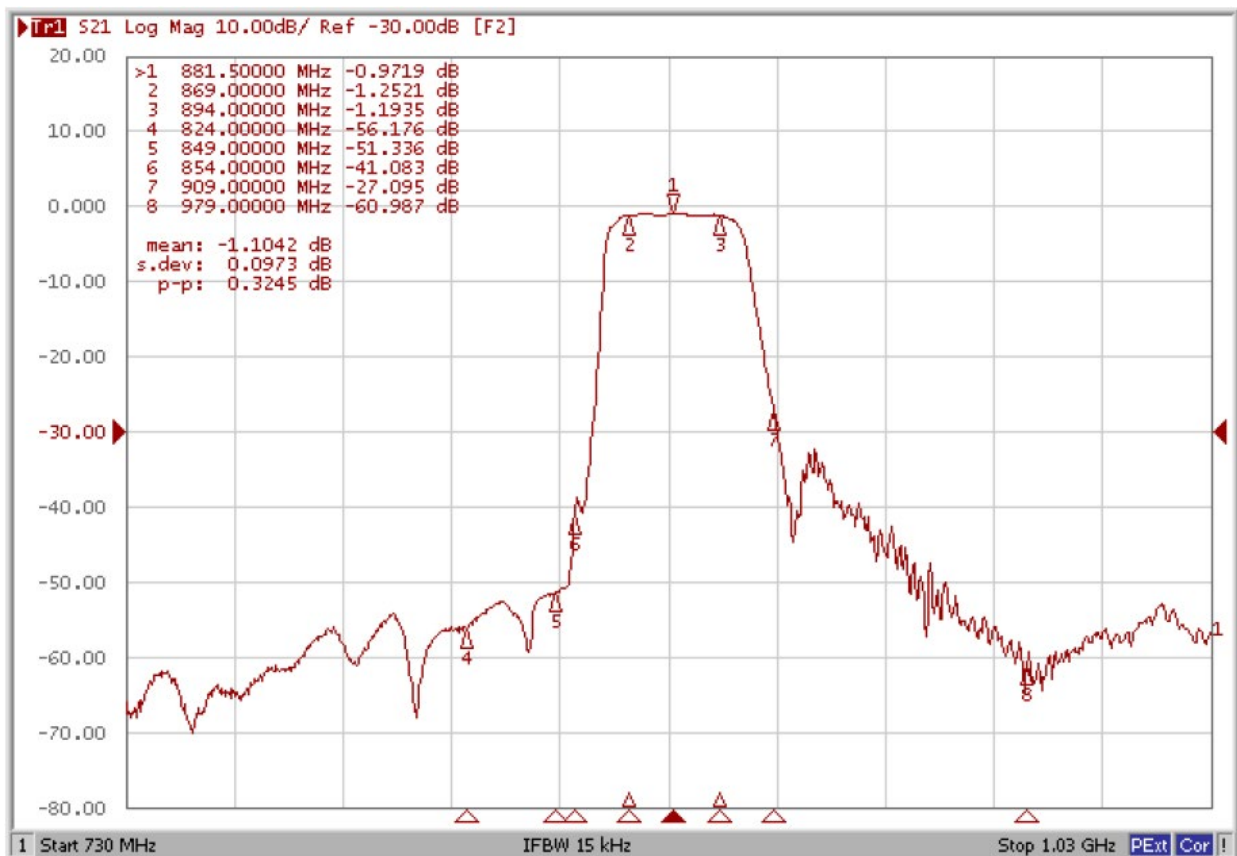
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## Transmission Characteristics

### S21 Response (Narrowband)



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## S21 Response (Broadband)



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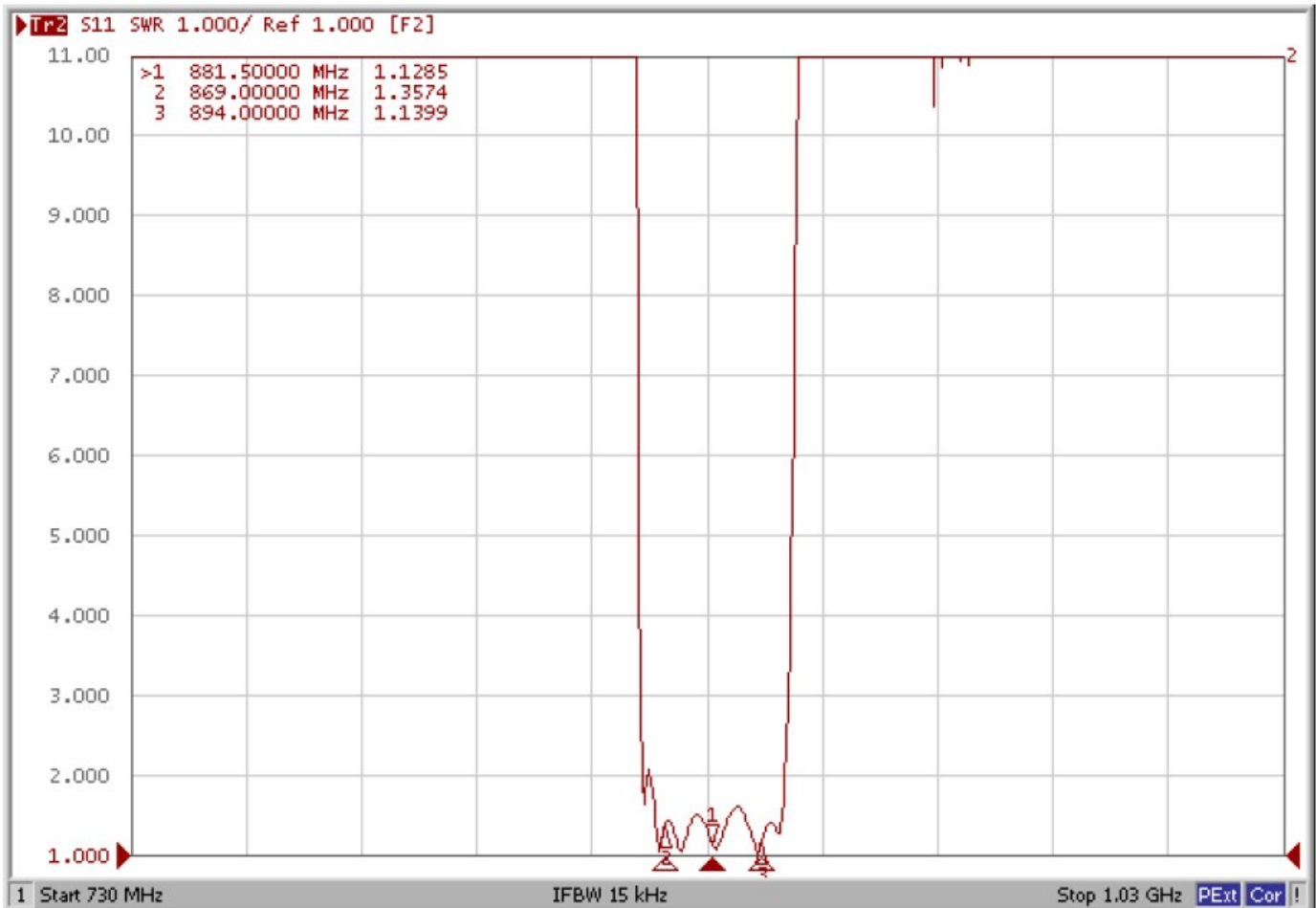
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## Reflection Characteristics

### S11 Response



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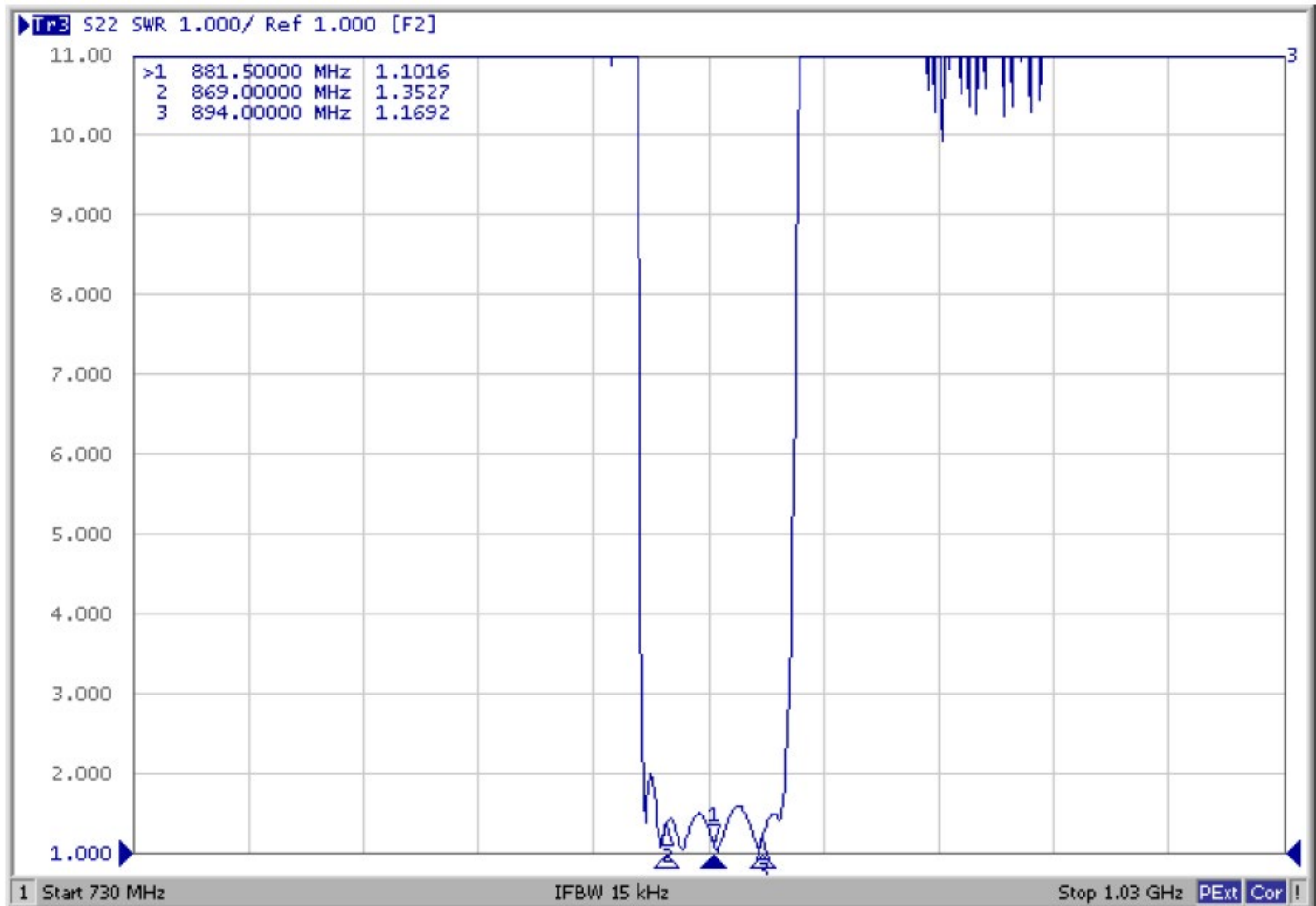


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S22 Response



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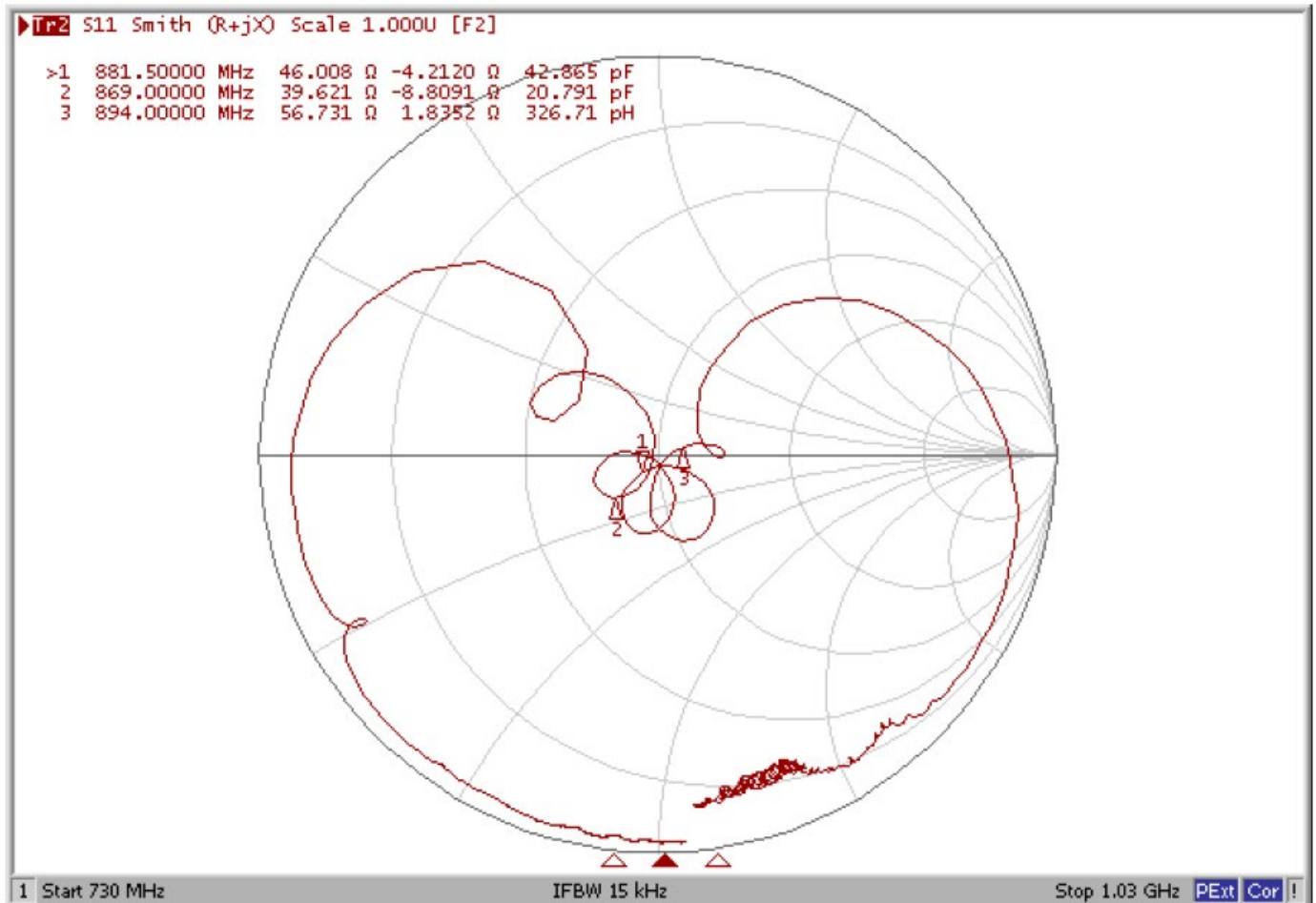


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Smith Chart





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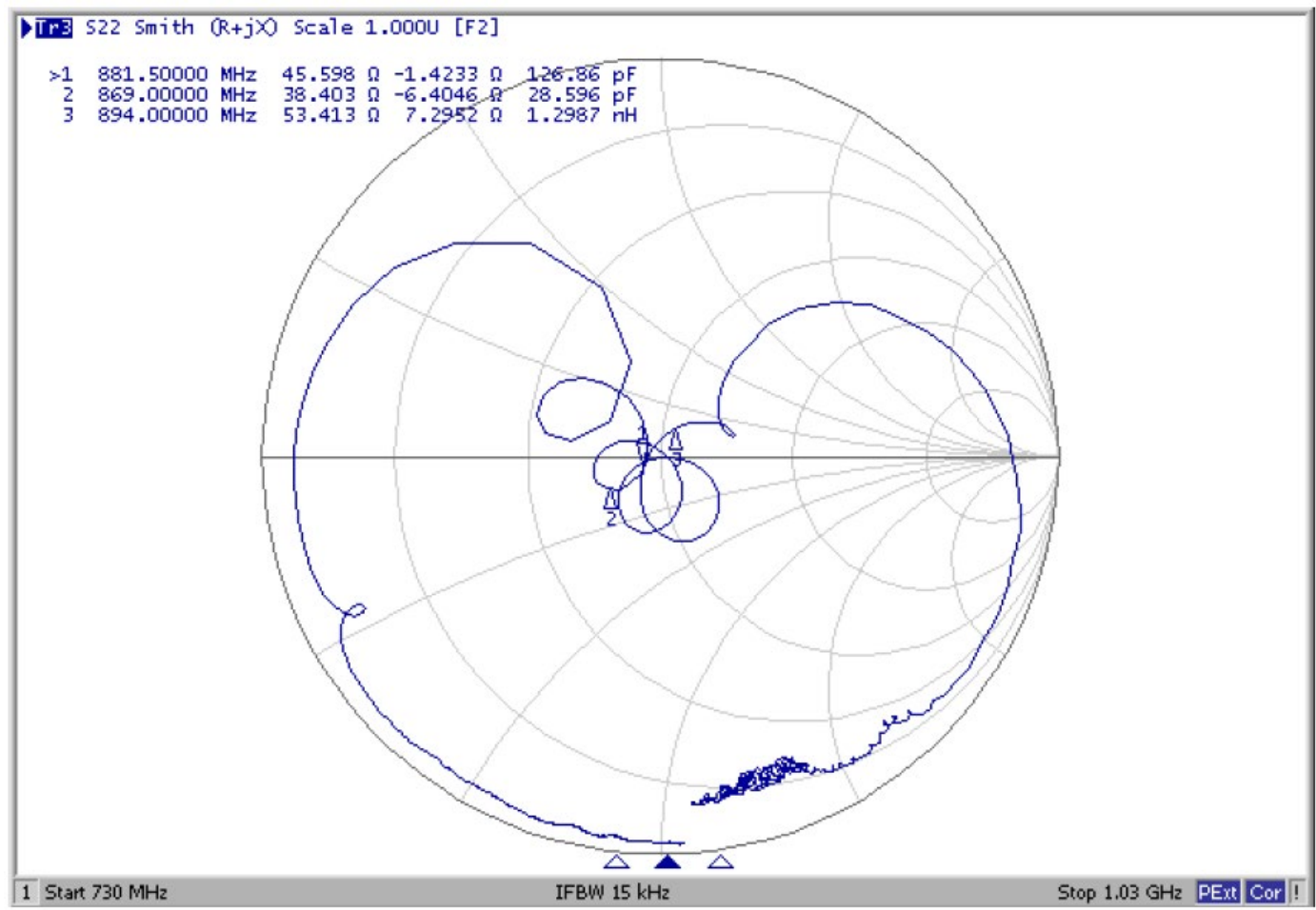


Check Inventory



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RoHS/RoHS II Compliant  
MSL Level = 3

Smith Chart



**ABRACON**

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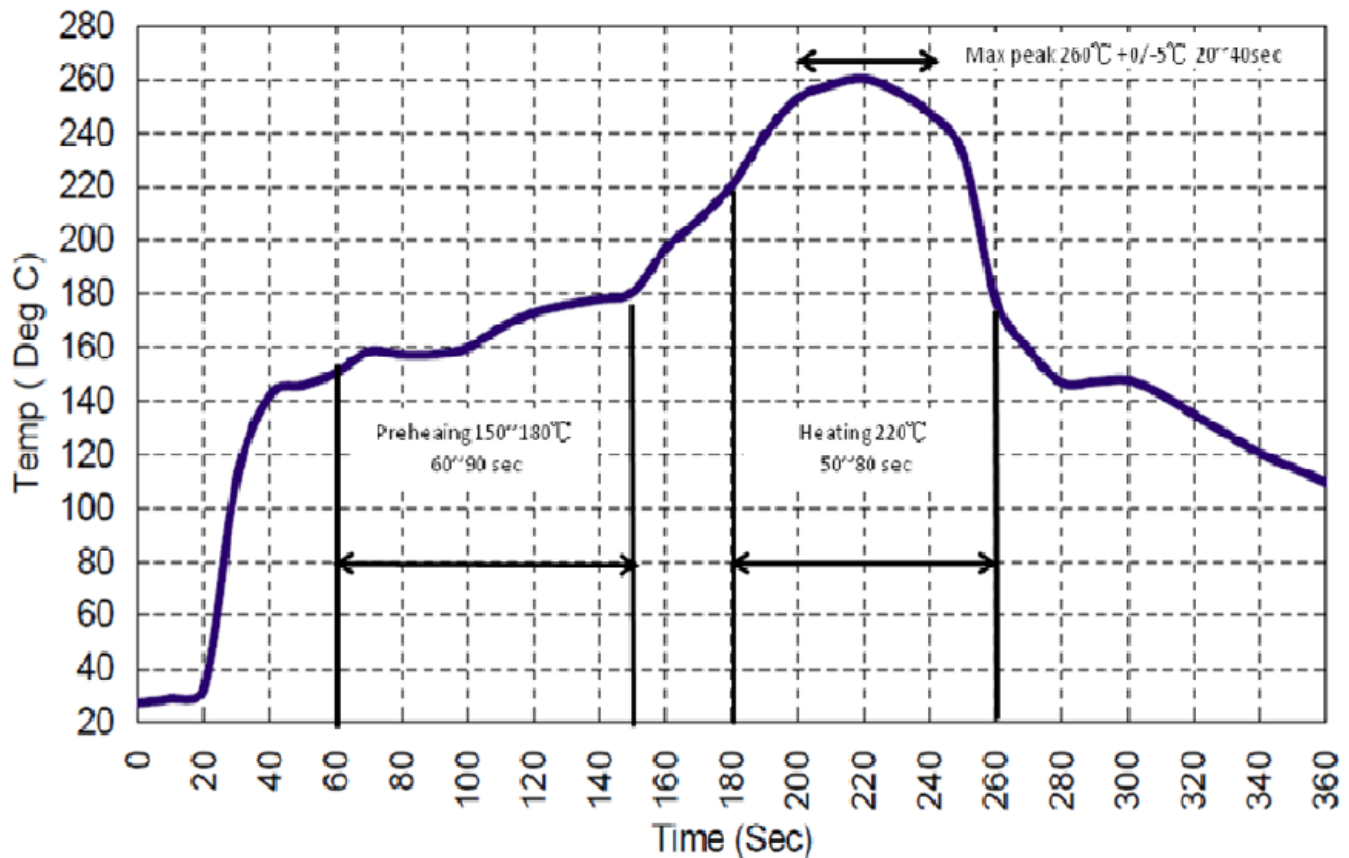
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## Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds minimum.
3. Heating shall be fixed at 220°C for 50~80seconds and at 260°C+0/-5°C peak (20~40sec)
4. Time: 2 times



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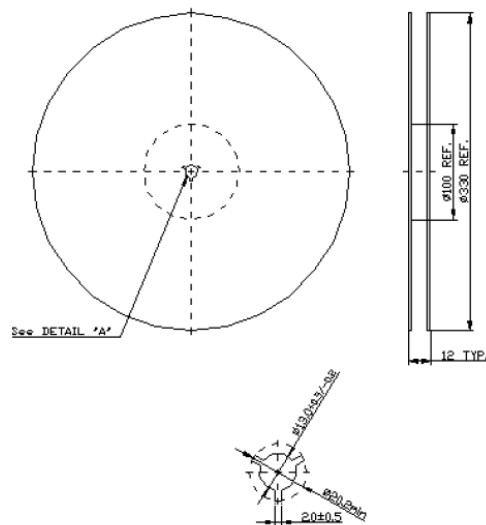


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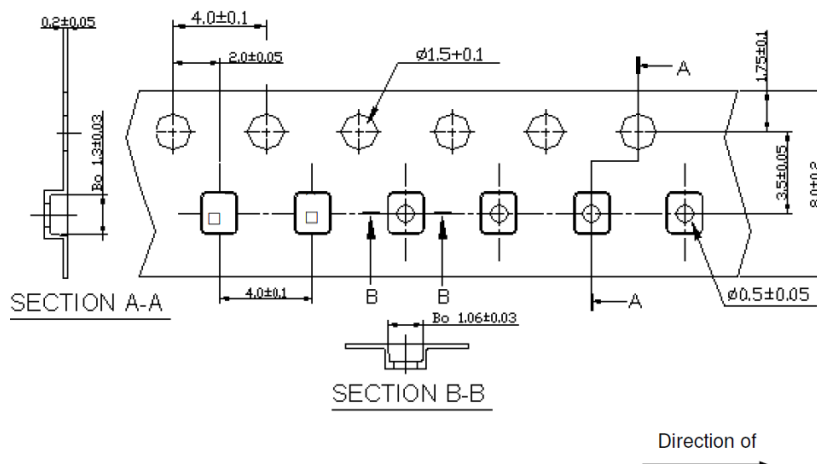
## Packaging

### 1. Reel Dimension

Number of pieces/reel: 5k



### 2. Tape Dimension



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