

# Bandpass Filter

50Ω 1730 to 2270 MHz

## Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input*       | 7W at 25°C     |

\*Passband rating, derate linearly to 3W at 100°C ambient.  
Permanent damage may occur if any of these limits are exceeded.

## Features

- Good Rejection, 30dB up to 16GHz
- Low insertion loss
- Excellent power handling, 7W
- Temperature stable LTCC internal structure
- Rugged stainless steel unibody
- Protected by US Patent 6,943,646

## Applications

- Harmonic rejection
- Transmitters/receivers
- Lab use
- Test instrumentation



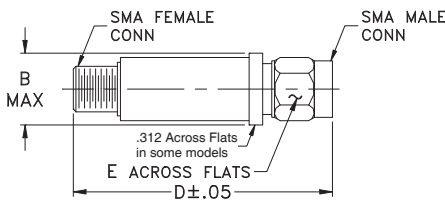
CASE STYLE: FF1145

| Connectors | Model        |
|------------|--------------|
| SMA        | VBFZ-2000-S+ |

### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

## Outline Drawing



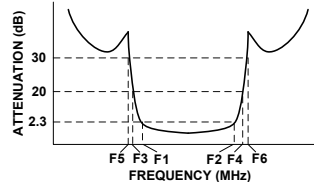
## Outline Dimensions (inch mm)

| B     | D     | E    | wt.   |
|-------|-------|------|-------|
| .410  | 1.91  | .312 | grams |
| 10.41 | 48.51 | 7.92 | 11.8  |

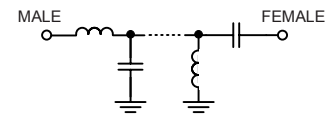
## Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

| CENTER FREQ. (MHz)<br>Fc | PASSBAND (MHz)<br>(Loss < 2.3dB)<br>F1 - F2 | STOPBANDS (MHz)        |      |                          |              | VSWR (:1) |      |          |
|--------------------------|---------------------------------------------|------------------------|------|--------------------------|--------------|-----------|------|----------|
|                          |                                             | (Loss > 20dB)<br>F3 F4 |      | (Loss 30dB Typ)<br>F5 F6 |              | Passband  |      | Stopband |
|                          |                                             |                        |      |                          |              | Typ.      | Max. | Typ.     |
| 2000                     | 1730 - 2270                                 | 1210                   | 2960 | 1200                     | 2960 - 16000 | 1.6       | 2.4  | 20       |

## Typical Frequency Response

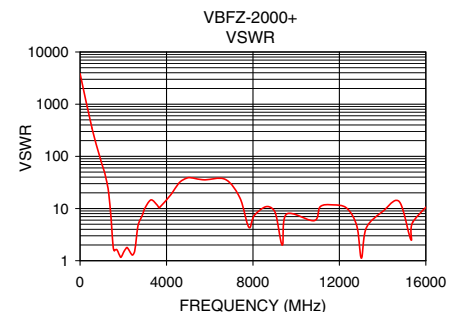
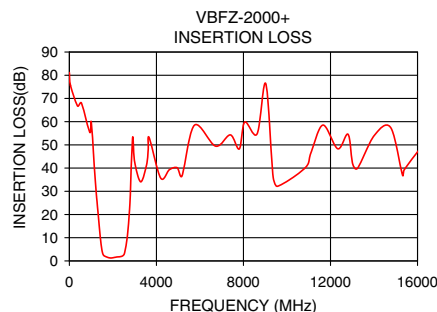


## Functional Schematic



## Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 50              | 79.14               | 18637.82  |
| 250             | 68.15               | 1353.31   |
| 1200            | 33.44               | 38.13     |
| 1210            | 32.29               | 36.51     |
| 1360            | 16.33               | 14.94     |
| 1461            | 6.99                | 4.47      |
| 1530            | 3.28                | 1.87      |
| 1730            | 1.63                | 1.56      |
| 2000            | 1.37                | 1.42      |
| 2270            | 1.80                | 1.72      |
| 2556            | 3.93                | 1.89      |
| 2635            | 8.17                | 3.61      |
| 2720            | 16.45               | 5.44      |
| 2800            | 27.89               | 6.30      |
| 2850            | 37.66               | 6.86      |
| 2960            | 48.75               | 9.06      |
| 5000            | 39.36               | 40.30     |
| 10000           | 37.29               | 15.72     |
| 13000           | 42.80               | 1.31      |
| 16000           | 51.77               | 20.73     |



### Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.  
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.  
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