

Coaxial Bandpass Filter

VBFZ-2000-S+

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



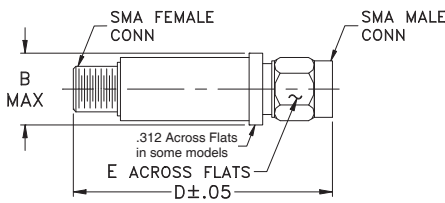
Generic photo used for illustration purposes only
CASE STYLE: FF1145

| 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)

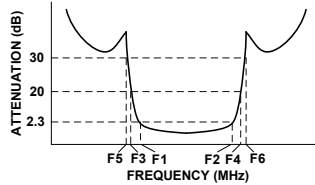
| B | D | E | wt. |
|-------|-------|------|-------|
| .410 | 1.91 | .312 | grams |
| 10.41 | 48.51 | 7.92 | 11.8 |

Note: Please refer to case style drawing for details

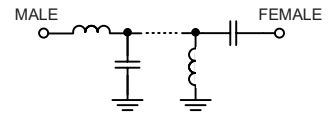
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

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

Typical Frequency Response



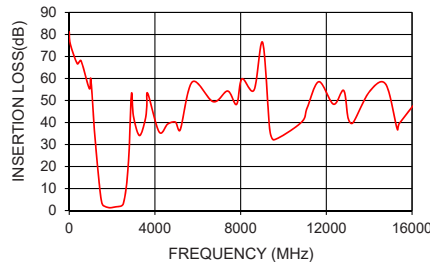
Functional Schematic



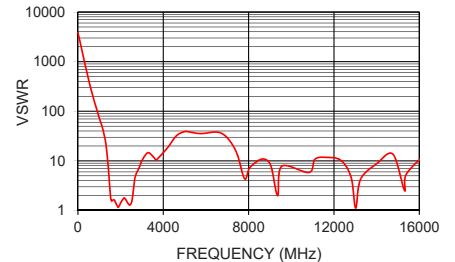
Typical Performance Data at 25°C

| 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 |

VBFZ-2000-S+
INSERTION LOSS



VBFZ-2000-S+
VSWR



Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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