

# Coaxial Bandpass Filter

## VBFZ-780-S+

50Ω 710 to 850 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 unbody
- Protected by US Patent 6,943,646

### Application

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



Generic photo used for illustration purposes only

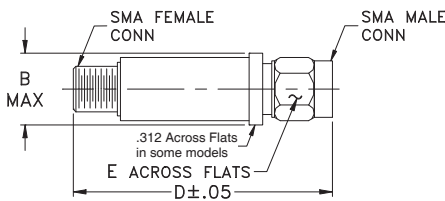
CASE STYLE: FF1145

Connectors	Model
SMA	VBFZ-780-S+

**+RoHS Compliant**

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

### Outline Drawing



### Outline Dimensions (inch mm)

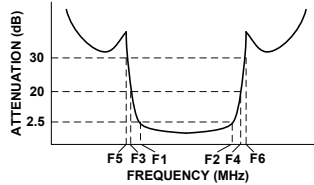
B	D	E	wt.
.410	1.91	.312	grams
10.41	48.51	7.92	11.8

Note: Please refer to case style drawing for details

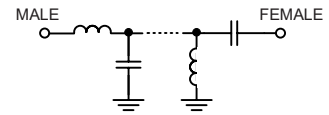
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz) Fc	PASSBAND (MHz) (Loss < 2.5dB)	STOPBANDS (MHz)				VSWR (:1)		
		(Loss > 20dB)		(Loss 30dB Typ)		Passband		Stopband
	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
780	710 - 850	460	1300	440	1320 - 16000	1.6	2.3	20

### Typical Frequency Response



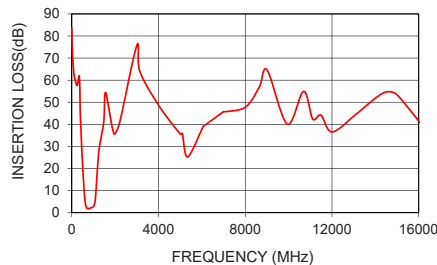
### Functional Schematic



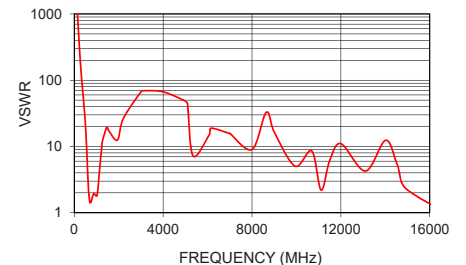
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	79.73	6806.77
80	65.09	2913.45
250	57.62	233.19
440	33.58	40.34
460	29.32	33.32
510	19.74	19.36
542	14.26	12.39
595	6.78	4.72
643	3.19	2.14
710	1.87	1.42
780	1.76	1.55
850	2.01	1.86
1052	3.95	2.08
1105	7.91	3.31
1158	15.43	5.32
1300	30.97	14.04
1320	31.84	15.36
3000	76.71	66.69
8000	47.70	8.93
16000	45.21	19.38

VBFZ-780-S+  
INSERTION LOSS



VBFZ-780-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](http://www.minicircuits.com/MCLStore/terms.jsp)

