# Coaxial Low Pass Filter

### **50**0

## \*DC to 320 MHz

#### **Maximum Ratings**

| Operating Temperature      | -55°C to 100°C    |
|----------------------------|-------------------|
| Storage Temperature        | -55°C to 100°C    |
| RF Power Input*            | 8.5W max. at 25°C |
| DC Current Input to Output | 0.5A max. at 25°C |

\* Passband rating, derate linearly to 3.5W at 100°C ambient. Permanent damage may occur if any of these limits are exceed

#### **Features**

- rugged uni-body construction, small size
- 7 sections
- excellent power handling, 8.5W
- temperature stable
- low cost
- protected by U.S. Patent 6,943,646

#### **Applications**

\*DC-320

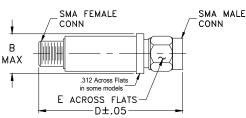
- harmonic rejection
- transmitters/receivers
- · lab use



Generic photo used for illustration purposes only CASE STYLE: FF704 Model Connectors SMA VLF-320+

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





#### Outline Dimensions (inch)

| В     | D     | E    | wt    |
|-------|-------|------|-------|
| .410  | 1.43  | .312 | grams |
| 10.41 | 36.32 | 7.92 | 10.0  |

Electrical Specifications at 25°C PASSBAND STOP BAND (MHz) fco, MHz VSWR NO. OF SECTIONS (MHz) Nom. (loss, dB) (:1) (loss < 1 dB)(loss 3 dB) f 20 40 fr 20 Stopband Passband Max Тур. Min Тур Тур Тур. Тур

640-2500

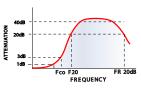
560

5300

Not for use with DC voltage at input and output ports

460

#### typical frequency response

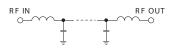


#### electrical schematic

1.2

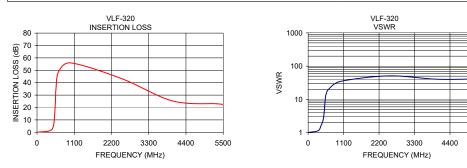
7

20



#### Typical Performance Data at 25°C

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | VSWR<br>(:1) |
|--------------------|------------------------|--------------|
| 1                  | 0.09                   | 1.02         |
| 100                | 0.30                   | 1.05         |
| 320                | 0.83                   | 1.16         |
| 400                | 1.56                   | 1.63         |
| 460                | 3.07                   | 2.32         |
| 500                | 7.33                   | 4.34         |
| 520                | 13.60                  | 7.94         |
| 545                | 25.47                  | 12.71        |
| 560                | 34.83                  | 14.62        |
| 640                | 49.07                  | 20.45        |
| 1000               | 55.95                  | 34.75        |
| 2500               | 43.30                  | 51.10        |
| 4000               | 25.31                  | 40.41        |
| 5300               | 23.02                  | 41.37        |
| 5500               | 22.51                  | 41.37        |



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. C. 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-Circuit's website at www.minicircuits.com/WCLStore/terms.jsp



5500

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