

# Coaxial Low Pass Filter

50Ω

\*DC to 105 MHz

VLF-105+



Generic photo used for illustration purposes only

CASE STYLE: FF704

| Connectors | Model    |
|------------|----------|
| SMA        | VLF-105+ |

+RoHS Compliant

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

## 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 |

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

## 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

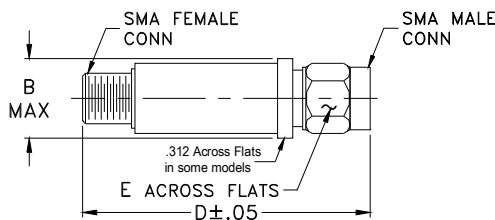
- harmonic rejection
- transmitters/receivers
- lab use

## Electrical Specifications at 25°C

| PASSBAND<br>(MHz)<br>(loss < 1 dB) | fco, MHz<br>Nom.<br>(loss 3 dB) | STOP BAND (MHz)<br>(loss, dB) |            |               | VSWR<br>(:1)     |                  | NO. OF<br>SECTIONS |
|------------------------------------|---------------------------------|-------------------------------|------------|---------------|------------------|------------------|--------------------|
|                                    |                                 | f 20<br>Min.                  | 40<br>Typ. | fr 20<br>Typ. | Stopband<br>Typ. | Passband<br>Typ. |                    |
| Max.                               | Typ.                            | Min.                          | Typ.       | Typ.          | Typ.             | Typ.             |                    |
| *DC-105                            | 180                             | 250                           | 265-1650   | 4750          | 20               | 1.2              | 7                  |

\* Not for use with DC voltage at input and output ports

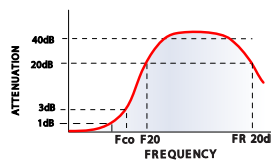
## Outline Drawing



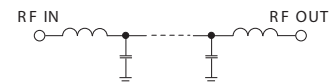
## Outline Dimensions (inch/mm)

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

## typical frequency response

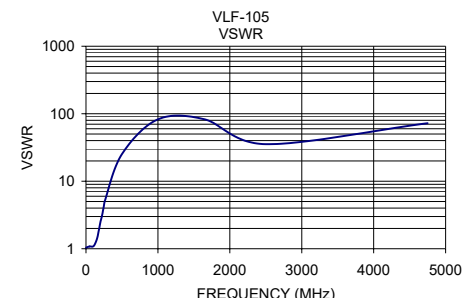
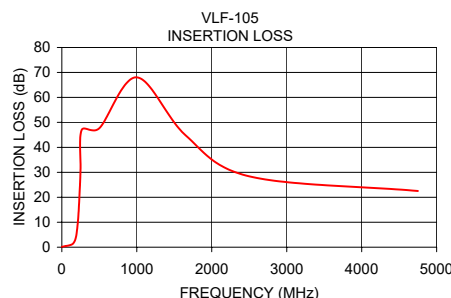


## electrical schematic



## Typical Performance Data at 25°C

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | VSWR<br>(:1) |
|--------------------|------------------------|--------------|
| 1                  | 0.17                   | 1.04         |
| 50                 | 0.45                   | 1.08         |
| 105                | 0.78                   | 1.09         |
| 150                | 1.45                   | 1.37         |
| 180                | 3.10                   | 1.92         |
| 200                | 6.17                   | 2.45         |
| 220                | 12.57                  | 2.99         |
| 240                | 23.78                  | 3.85         |
| 250                | 31.56                  | 4.41         |
| 265                | 47.01                  | 5.23         |
| 500                | 47.65                  | 25.19        |
| 1000               | 68.04                  | 82.73        |
| 1650               | 44.82                  | 82.73        |
| 2500               | 28.37                  | 35.46        |
| 4750               | 22.50                  | 72.39        |



## 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.
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[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 [sales@minicircuits.com](mailto:sales@minicircuits.com)

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