# **Low Pass Filter**

# $50\Omega$

# \*DC to 1500 MHz

#### **Maximum Ratings**

| Operating Temperature      | -55°C to 100°C    |
|----------------------------|-------------------|
| Storage Temperature        | -55°C to 100°C    |
| RF Power Input*            | 10W max. at 25°C  |
| DC Current Input to Output | 0.5A max. at 25°C |

<sup>\*</sup> 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, 10W
- temperature stable
- · low cost
- protected by U.S. Patent 6,943,646

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

#### **Applications**

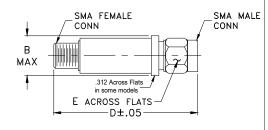
- harmonic rejection
- transmitters/receivers
- lab use

### Electrical Specifications at 25°C

| PASSBAND<br>(MHz) | fco, MHz<br>Nom. | STOP BAND (MHz)<br>(loss, dB) |           | VSWR<br>(:1) |          | NO. OF<br>SECTIONS |   |
|-------------------|------------------|-------------------------------|-----------|--------------|----------|--------------------|---|
| (loss < 1 dB)     | (loss 3 dB)      | f 20                          | 30        | fr 20        | Stopband | Passband           |   |
| Max.              | Тур.             | Min.                          | Тур.      | Тур.         | Тур.     | Тур.               |   |
| *DC-1500          | 1825             | 2100                          | 2150-6600 | 6800         | 20       | 1.2                | 7 |

<sup>\*</sup> Not for use with DC voltage at input and output ports

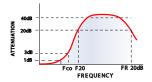
# **Outline Drawing**



## Outline Dimensions (inch )

| wt    | Ε    | D     | В     |
|-------|------|-------|-------|
| grams | .312 | 1.43  | .410  |
| 10.0  | 7 92 | 36.32 | 10 41 |

## typical frequency response



#### electrical schematic

VLF-1500+

Generic photo used for illustration purposes only

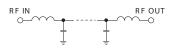
CASE STYLE: FF704

+RoHS Compliant

Model

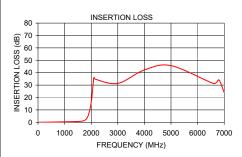
VLF-1500+

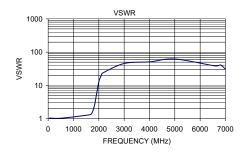
Connectors



# Typical Performance Data at 25°C

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | VSWR<br>(:1) |
|--------------------|------------------------|--------------|
|                    |                        |              |
| 50                 | 0.07                   | 1.04         |
| 500                | 0.18                   | 1.04         |
| 1500               | 0.67                   | 1.27         |
| 1700               | 1.16                   | 1.38         |
| 1825               | 2.84                   | 2.46         |
| 1900               | 6.24                   | 4.93         |
| 2000               | 16.20                  | 12.80        |
| 2100               | 36.11                  | 20.22        |
| 2150               | 34.78                  | 23.49        |
| 3000               | 31.36                  | 45.72        |
| 4000               | 42.21                  | 51.10        |
| 5000               | 45.73                  | 62.05        |
| 6600               | 31.36                  | 38.61        |
| 6800               | 34.26                  | 41.37        |
| 7000               | 24.02                  | 31.03        |





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-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp