# Low Pass Filter

#### \*DC to 120 MHz $50\Omega$

### **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 |

<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, 8.5W
- temperature stable
- · low cost

- protected by U.S. Patent 6,943,646

Connectors

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

VLF-120+

Generic photo used for illustration purposes only

CASE STYLE: FF704

Model

VLF-120+

### **Applications**

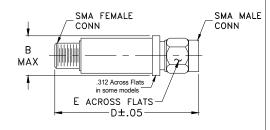
- harmonic rejection
- transmitters/receivers
- lab use

# 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                          | 40       | fr 20        | Stopband | Passband           |   |
| Max.              | Тур.             | Min.                          | Тур.     | Тур.         | Тур.     | Тур.               |   |
| *DC-120           | 195              | 280                           | 300-1850 | 4750         | 20       | 1.2                | 7 |

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

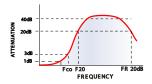
## **Outline Drawing**



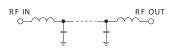
# Outline Dimensions (inch)

R D Ε .410 1.43 .312 grams 10.41 36.32 7.92 10.0

### typical frequency response

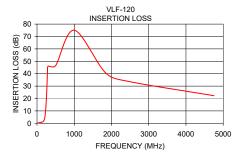


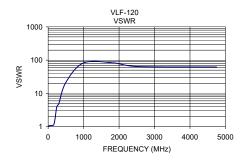
### electrical schematic



# Typical Performance Data at 25°C

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | VSWR<br>(:1) |
|--------------------|------------------------|--------------|
|                    | 0.10                   |              |
| 1                  | 0.13                   | 1.04         |
| 50                 | 0.42                   | 1.08         |
| 120                | 0.84                   | 1.09         |
| 160                | 1.31                   | 1.16         |
| 195                | 2.90                   | 1.74         |
| 216                | 6.14                   | 2.62         |
| 240                | 14.01                  | 3.81         |
| 265                | 28.41                  | 4.40         |
| 280                | 41.01                  | 4.56         |
| 300                | 46.04                  | 4.87         |
| 500                | 46.50                  | 21.46        |
| 1000               | 75.07                  | 82.73        |
| 1850               | 40.40                  | 82.73        |
| 2500               | 33.53                  | 64.35        |
| 4750               | 22.25                  | 62.05        |





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.

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