

# High Pass Filter

50Ω 3400 to 9900 MHz

## Maximum Ratings

|                       |                 |
|-----------------------|-----------------|
| Operating Temperature | -55°C to 100°C  |
| Storage Temperature   | -55°C to 100°C  |
| RF Power Input*       | 7W max. 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

- Rugged uni-body construction, small size
- 5 sections
- Temperature stable
- Excellent power handling, 7W
- Low cost

## Application

- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers
- Lab use

# VHF-3100+



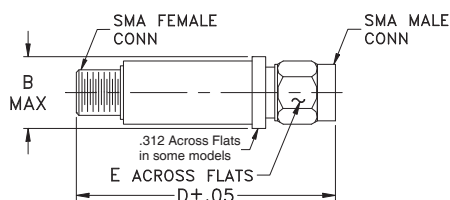
CASE STYLE: FF704

|            |           |
|------------|-----------|
| Connectors | Model     |
| SMA        | VHF-3100+ |

**+RoHS Compliant**

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

## Outline Drawing



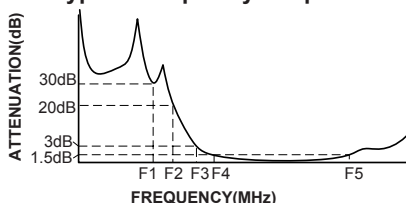
## Outline Dimensions (inch mm)

| B     | D     | E    | wt.   |
|-------|-------|------|-------|
| .410  | 1.43  | .312 | grams |
| 10.41 | 36.32 | 7.92 | 10    |

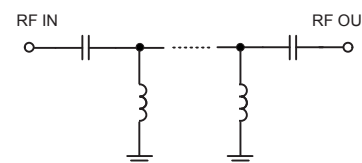
## High Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

| STOPBAND (MHz) |             | f <sub>co</sub> , MHz | PASSBAND (MHz) |            | VSWR |                 | NO. OF SECTIONS |
|----------------|-------------|-----------------------|----------------|------------|------|-----------------|-----------------|
| (Loss>30dB)    | (Loss>20dB) | Nom.                  | (Loss<1.5dB)   | (Loss<2dB) | Typ. | Frequency (MHz) |                 |
| Typ. DC-F1     | Min. DC-F2  | Typ. F3               | Max. F4-F5     | Max.       |      | 1.5:1           |                 |
| DC-2500        | DC-2450     | 3100                  | 3500-9500      | 3400-9900  | 20:1 | 3100-10500      | 5               |

## Typical Frequency Response



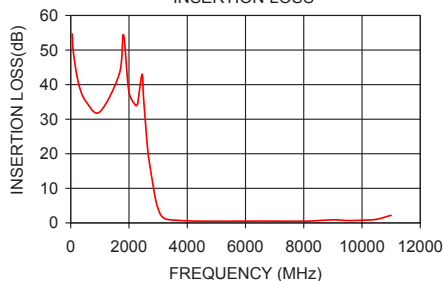
## Electrical schematic



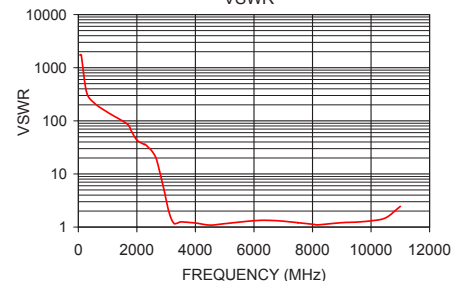
## Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 50              | 54.69               | 1737.18   |
| 800             | 32.70               | 124.09    |
| 1810            | 54.43               | 64.35     |
| 2450            | 42.98               | 29.46     |
| 2500            | 36.08               | 27.59     |
| 2700            | 17.52               | 16.56     |
| 2920            | 6.49                | 5.25      |
| 3100            | 2.20                | 1.89      |
| 3400            | 0.91                | 1.19      |
| 3500            | 0.83                | 1.25      |
| 5000            | 0.48                | 1.16      |
| 7000            | 0.52                | 1.29      |
| 9000            | 0.87                | 1.21      |
| 9500            | 0.68                | 1.24      |
| 9900            | 0.74                | 1.29      |
| 10500           | 1.04                | 1.49      |
| 11000           | 2.20                | 2.45      |

VHF-3100+  
INSERTION LOSS



VHF-3100+  
VSWR



## 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.  
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