

# High Pass Filter

NON-CATALOG

VHF-8400

50Ω 9000 to 13000 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

- Low cost
- Small size
- 5 sections
- Temperature stable
- Excellent power handling, 7W
- DC block in/out, breakdown voltage, 1kV typ.

## Application

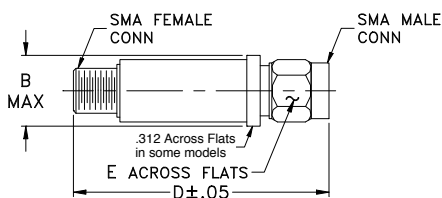
- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers
- Lab use
- Instrumentation
- Test equipment



CASE STYLE: FF704

Connectors	Model
SMA	VHF-8400

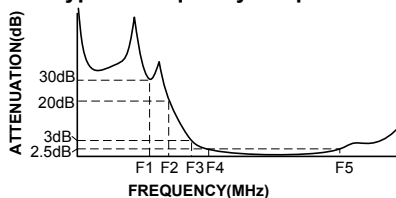
## Outline Drawing



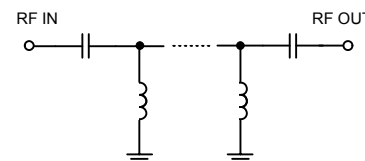
## High Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

STOPBAND (MHz)		f <sub>co</sub> , MHz	PASSBAND (MHz)		VSWR		NO. OF SECTIONS
(Loss>30dB)	(Loss>20dB)	Nom.	(Loss<2.5dB)	(Loss<3dB)	Typ.	Frequency (MHz)	
Typ. DC-F1	Min. DC-F2	Typ. F3	Max. F4-F5	Max.	Stopband	1.5:1	5
DC-5700	DC-6000	8400	9500-13000	9000-13000	20:1	9000-13000	

## Typical Frequency Response



## Electrical schematic



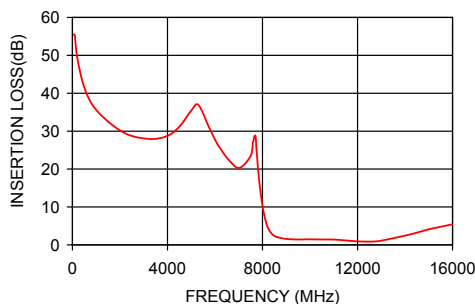
## Outline Dimensions (inch/mm)

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

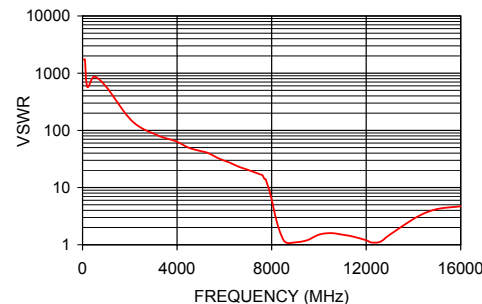
## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	55.48	1737.18
500	41.57	868.59
4500	31.17	49.64
5700	36.69	31.60
6000	27.78	29.46
7500	23.46	17.05
8020	9.65	5.68
8400	2.88	1.50
8600	2.11	1.15
9000	1.57	1.06
9500	1.43	1.24
10000	1.47	1.46
12000	0.92	1.22
13000	1.10	1.48
16000	5.43	4.72

VHF-8400 INSERTION LOSS



VHF-8400 VSWR



### 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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