

# Coaxial High Pass Filter

50Ω 290 to 3000 MHz

## Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input        | 0.5W max.      |

Permanent damage may occur if any of these limits are exceeded.

## Features

- rugged shielded case
- other standard and custom SHP models available with wide selection of fco

## Applications

SHP-300+



CASE STYLE: FF99

| Connectors | Model    | Price       | Qty.  |
|------------|----------|-------------|-------|
| SMA        | SHP-300+ | \$38.95 ea. | (1-9) |

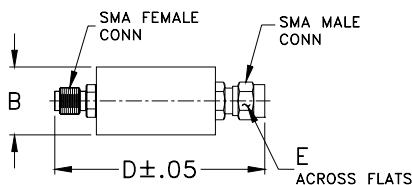
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

## High Pass Filter Electrical Specifications

| STOPBAND (MHz)                | fco (MHz) Nom. | PASSBAND (MHz)  | VSWR (:1)                   |
|-------------------------------|----------------|-----------------|-----------------------------|
| (loss > 40 dB) (loss > 20 dB) | (loss 3 dB)    | (loss < 1.5 dB) | Stopband Typ. Passband Typ. |
| DC-145 145-190                | 245            | 290-3000        | 17 1.7                      |

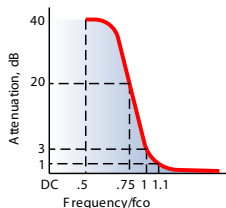
## Outline Drawing



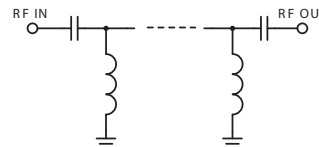
## Outline Dimensions (inch/mm)

| B     | D     | E    | wt    |
|-------|-------|------|-------|
| .67   | 1.98  | .312 | grams |
| 17.02 | 50.29 | 7.92 | 42.0  |

## typical frequency response

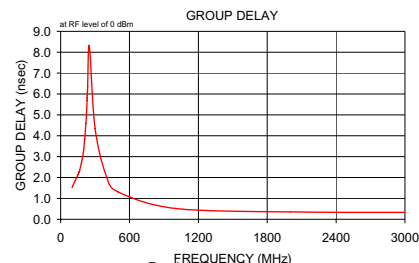
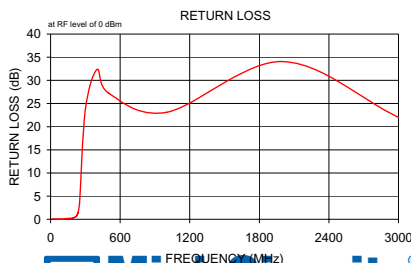
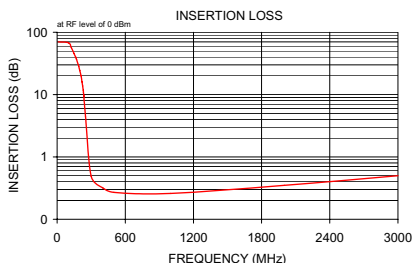


## electrical schematic



## Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) $\bar{x}$ | Insertion Loss (dB) $\sigma$ | Return Loss (dB) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|-------------------------------|------------------------------|------------------|-----------------|--------------------|
| 10.00           | 70.05                         | 4.53                         | 0.11             | 100.00          | 1.52               |
| 100.00          | 67.77                         | 0.48                         | 0.08             | 125.00          | 1.84               |
| 125.00          | 56.38                         | 0.52                         | 0.14             | 150.00          | 2.14               |
| 150.00          | 45.47                         | 0.61                         | 0.17             | 159.00          | 2.24               |
| 159.00          | 41.59                         | 0.66                         | 0.17             | 160.00          | 2.25               |
| 160.00          | 41.15                         | 0.66                         | 0.18             | 161.00          | 2.24               |
| 162.00          | 40.29                         | 0.67                         | 0.18             | 162.00          | 2.25               |
| 163.00          | 39.86                         | 0.67                         | 0.18             | 163.00          | 2.28               |
| 164.00          | 39.43                         | 0.67                         | 0.18             | 164.00          | 2.29               |
| 170.00          | 36.88                         | 0.71                         | 0.19             | 170.00          | 2.45               |
| 180.00          | 32.65                         | 0.77                         | 0.21             | 180.00          | 2.69               |
| 190.00          | 28.46                         | 0.84                         | 0.26             | 190.00          | 2.94               |
| 200.00          | 24.28                         | 0.90                         | 0.33             | 200.00          | 3.32               |
| 210.00          | 20.10                         | 0.98                         | 0.44             | 210.00          | 3.84               |
| 220.00          | 15.91                         | 1.05                         | 0.61             | 220.00          | 4.59               |
| 225.00          | 13.82                         | 1.08                         | 0.75             | 225.00          | 5.09               |
| 230.00          | 11.75                         | 1.10                         | 0.96             | 230.00          | 5.69               |
| 231.00          | 11.35                         | 1.11                         | 1.01             | 231.00          | 5.81               |
| 232.00          | 10.94                         | 1.11                         | 1.07             | 232.00          | 5.94               |
| 233.00          | 10.53                         | 1.11                         | 1.13             | 233.00          | 6.08               |
| 234.00          | 10.13                         | 1.10                         | 1.20             | 234.00          | 6.22               |
| 235.00          | 9.74                          | 1.10                         | 1.27             | 235.00          | 6.36               |
| 236.00          | 9.34                          | 1.10                         | 1.35             | 236.00          | 6.50               |
| 250.00          | 4.46                          | 0.85                         | 3.58             | 250.00          | 8.29               |
| 300.00          | 0.49                          | 0.02                         | 23.84            | 300.00          | 4.35               |
| 400.00          | 0.32                          | 0.03                         | 32.34            | 400.00          | 2.02               |
| 500.00          | 0.27                          | 0.03                         | 27.26            | 500.00          | 1.31               |
| 1000.00         | 0.26                          | 0.01                         | 23.11            | 1000.00         | 0.52               |
| 2000.00         | 0.35                          | 0.01                         | 34.07            | 2000.00         | 0.35               |
| 3000.00         | 0.50                          | 0.01                         | 22.01            | 3000.00         | 0.33               |



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

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