

# Coaxial High Pass Filter

## BHP-25+

50Ω 27.5 to 800 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 BHP models available with wide selection of fco

### Applications

- lab use
- transmitters/receivers
- radio communications



Generic photo used for illustration purposes only

CASE STYLE: FF55

Connectors	Model
BNC	BHP-25+

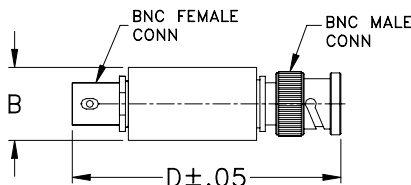
**+RoHS Compliant**

The +Suffix identifies 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) DC-13	(loss > 20 dB) 13-19	(loss < 1 dB) 27.5-800	Stopband Typ. 18 Passband Typ. 1.7

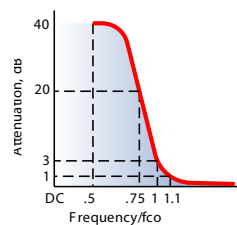
### Outline Drawing



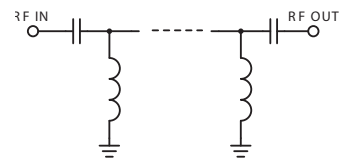
### Outline Dimensions (inch/mm)

B	D	wt
.54	2.59	grams
13.72	65.79	40.0

### typical frequency response

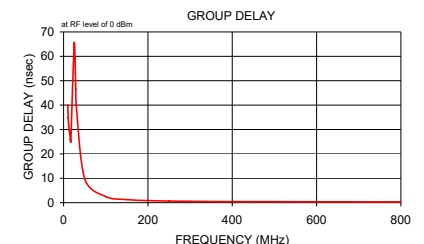
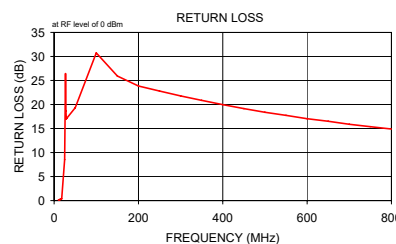
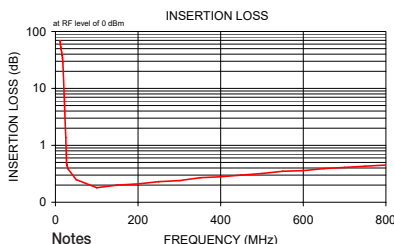


### electrical schematic



### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) $\bar{x}$	σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	67.19	3.53	0.16	10.00	40.11
11.00	68.52	6.60	0.15	11.00	34.82
12.00	58.67	1.74	0.11	12.00	31.93
13.00	53.20	1.29	0.20	13.00	29.96
14.00	48.60	0.72	0.20	14.00	28.87
15.00	43.62	0.76	0.33	15.00	28.34
16.00	38.71	0.65	0.34	16.00	25.81
17.00	34.04	0.72	0.29	17.00	24.89
18.00	29.51	0.70	0.38	18.00	28.84
25.00	1.37	0.11	8.53	25.00	65.12
27.00	0.47	0.03	26.43	27.00	59.20
28.00	0.45	0.04	18.63	28.00	53.28
29.00	0.42	0.06	17.01	29.00	46.47
30.00	0.39	0.06	17.14	30.00	40.06
50.00	0.25	0.01	19.33	50.00	9.87
100.00	0.18	0.00	30.73	100.00	2.50
150.00	0.20	0.00	25.92	150.00	1.26
200.00	0.21	0.00	23.84	200.00	0.85
250.00	0.23	0.00	22.80	250.00	0.65
300.00	0.24	0.00	21.78	300.00	0.55
350.00	0.27	0.00	20.86	350.00	0.48
400.00	0.28	0.00	19.97	400.00	0.44
450.00	0.30	0.00	19.15	450.00	0.41
500.00	0.32	0.00	18.38	500.00	0.40
550.00	0.35	0.00	17.74	550.00	0.38
600.00	0.36	0.00	17.04	600.00	0.37
650.00	0.39	0.01	16.51	650.00	0.35
700.00	0.41	0.01	15.88	700.00	0.34
750.00	0.43	0.01	15.38	750.00	0.34
800.00	0.45	0.01	14.89	800.00	0.34



#### 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-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)



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## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	67.19	0.16	10.0	40.110
11.0	68.52	0.15	11.0	34.820
12.0	58.67	0.11	12.0	31.930
13.0	53.20	0.20	13.0	29.960
14.0	48.60	0.20	14.0	28.870
15.0	43.62	0.33	15.0	28.340
16.0	38.71	0.34	16.0	25.810
17.0	34.04	0.29	17.0	24.890
18.0	29.51	0.38	18.0	28.840
19.0	24.95	0.38	19.0	34.670
20.0	20.28	0.41	20.0	42.290
21.0	15.75	0.51	21.0	49.590
22.0	11.18	0.80	22.0	56.230
23.0	6.87	1.61	23.0	61.460
24.0	3.39	3.72	24.0	64.480
25.0	1.37	8.53	25.0	65.120
26.0	0.66	18.20	26.0	63.250
27.0	0.47	26.43	27.0	59.200
28.0	0.45	18.63	28.0	53.280
29.0	0.42	17.01	29.0	46.470
30.0	0.39	17.14	30.0	40.060
50.0	0.25	19.33	50.0	9.870
100.0	0.18	30.73	100.0	2.500
150.0	0.20	25.92	150.0	1.260
200.0	0.21	23.84	200.0	0.850
250.0	0.23	22.80	250.0	0.650
300.0	0.24	21.78	300.0	0.550
350.0	0.27	20.86	350.0	0.480
400.0	0.28	19.97	400.0	0.440
450.0	0.30	19.15	450.0	0.410
500.0	0.32	18.38	500.0	0.400
550.0	0.35	17.74	550.0	0.380
600.0	0.36	17.04	600.0	0.370
650.0	0.39	16.51	650.0	0.350
700.0	0.41	15.88	700.0	0.340
750.0	0.43	15.38	750.0	0.340
800.0	0.45	14.89	800.0	0.340
850.0	0.48	14.47	850.0	0.330
900.0	0.50	14.06	900.0	0.330
950.0	0.53	13.72	950.0	0.320
1000.0	0.55	13.37	1000.0	0.330
1500.0	0.82	11.30	1500.0	0.310
1960.0	1.22	10.99	1960.0	0.310
2420.0	1.45	12.78	2420.0	0.310

REV. X1  
BHP-25+  
061112  
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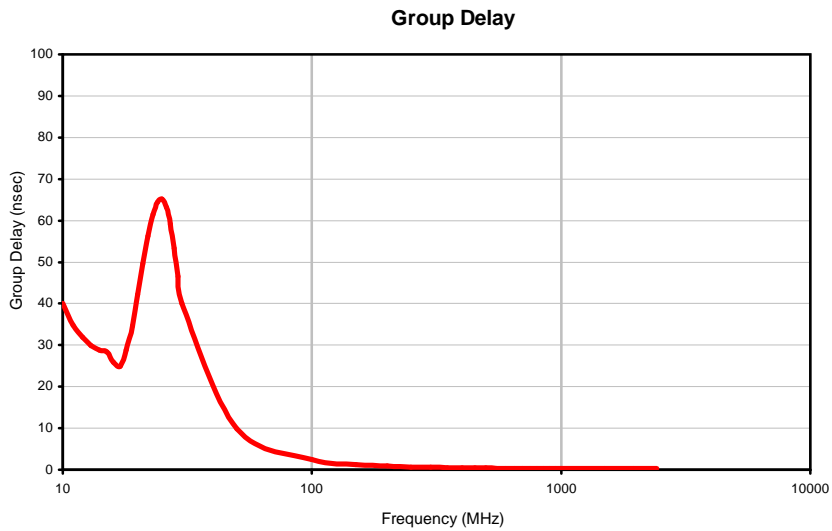
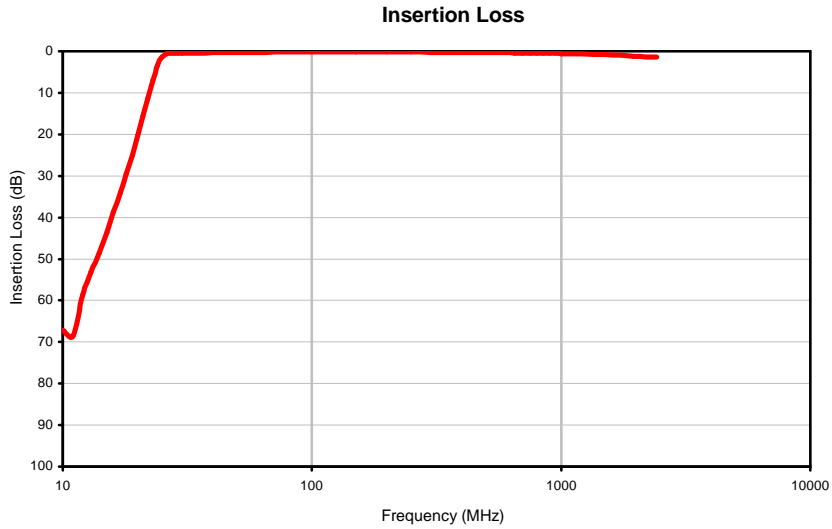
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## Typical Performance Curves

# BHP-25+



REV. X1  
BHP-25+  
061112  
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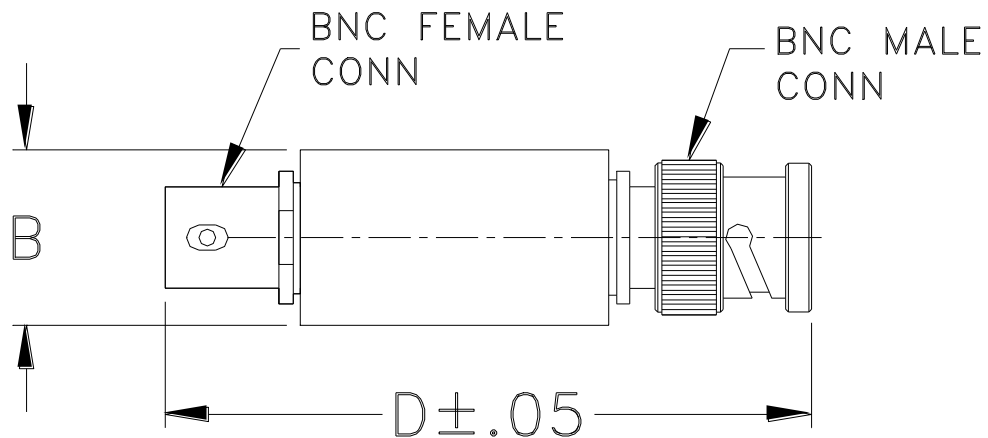
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### Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF55	--	.57 (14.47)	--	2.59 (65.79)	--	40.0

Dimensions are in inches (mm). Tolerances: 2Pl. +.03/-.04; 3Pl. ± .015

#### Note:

1. Case material: Stainless steel.

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

<b>Specification</b>	<b>Test/Inspection Condition</b>	<b>Reference/Spec</b>
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I