Coaxial

High Pass Filter

BHP-250+

50Ω 225 to 3000 MHz

CASE STYLE: FF55

Connectors	Model
BNC	BHP-250+

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

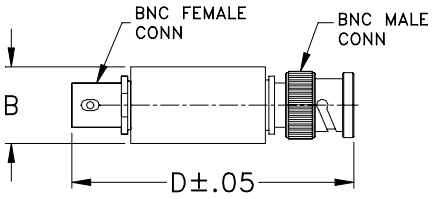
+RoHS Compliant

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

High Pass Filter Electrical Specifications

STOPBAND (MHz) (loss > 40 dB)	STOPBAND (MHz) (loss > 20 dB)	fco (MHz) Nom. (loss 3 dB)	PASSBAND (MHz) (loss <1 dB)	VSWR (:1) Stopband Typ.	VSWR (:1) Passband Typ.
DC-100	100-150	205	225-3000	17	1.3

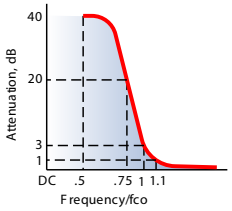
Outline Drawing



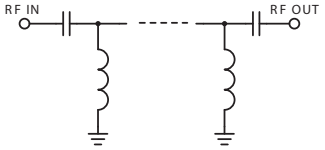
Outline Dimensions (inch / mm)

B	D	wt
.54	2.59	grams
13.72	65.79	40.0

typical frequency response

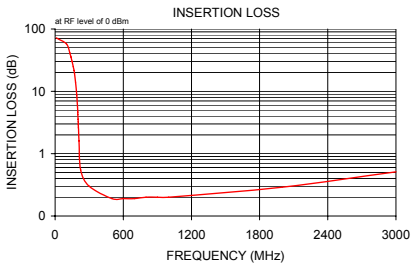


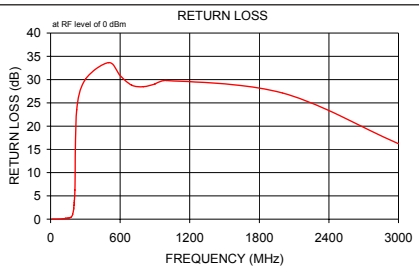
electrical schematic

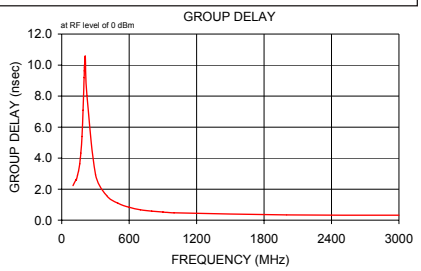


Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	72.15	5.67	0.03	100.00	2.23
100.00	57.26	0.27	0.08	129.00	2.63
129.00	41.25	0.45	0.17	130.00	2.59
130.00	40.71	0.46	0.18	140.00	2.90
140.00	35.39	0.54	0.20	150.00	3.17
150.00	30.09	0.62	0.22	160.00	3.63
160.00	24.78	0.73	0.26	166.00	4.00
166.00	21.57	0.80	0.29	170.00	4.32
170.00	19.43	0.85	0.34	180.00	5.39
180.00	14.04	0.97	0.53	190.00	7.09
190.00	8.77	1.03	1.02	199.00	9.19
199.00	4.65	0.89	2.21	200.00	9.41
200.00	4.26	0.86	2.43	201.00	9.63
201.00	3.90	0.83	2.67	202.00	9.83
202.00	3.56	0.79	2.93	203.00	10.02
203.00	3.24	0.75	3.23	204.00	10.18
204.00	2.94	0.70	3.56	205.00	10.32
205.00	2.66	0.66	3.91	206.00	10.43
206.00	2.41	0.61	4.31	210.00	10.58
210.00	1.60	0.42	6.27	225.00	8.03
225.00	0.55	0.03	23.49	300.00	2.94
300.00	0.30	0.02	30.05	400.00	1.59
500.00	0.19	0.00	33.64	500.00	1.09
600.00	0.19	0.00	30.85	600.00	0.83
700.00	0.19	0.01	28.81	700.00	0.67
800.00	0.20	0.01	28.48	800.00	0.58
900.00	0.20	0.01	29.04	900.00	0.52
1000.00	0.20	0.00	29.79	1000.00	0.47
2000.00	0.29	0.00	27.11	2000.00	0.34
3000.00	0.51	0.02	16.22	3000.00	0.32







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.
C. 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

Coaxial High Pass Filter BHP-250+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
10.0	72.15	0.03
100.0	57.26	0.08
130.0	40.71	0.18
140.0	35.39	0.20
150.0	30.09	0.22
160.0	24.78	0.26
166.0	21.57	0.29
167.0	21.04	0.31
170.0	19.43	0.34
180.0	14.04	0.53
185.0	11.37	0.71
186.0	10.84	0.76
187.0	10.31	0.82
188.0	9.80	0.88
189.0	9.28	0.94
190.0	8.77	1.02
199.0	4.65	2.21
200.0	4.26	2.43
201.0	3.90	2.67
202.0	3.56	2.93
203.0	3.24	3.23
204.0	2.94	3.56
205.0	2.66	3.91
206.0	2.41	4.31
207.0	2.17	4.73
208.0	1.96	5.20
209.0	1.77	5.71
210.0	1.60	6.27
211.0	1.44	6.87
212.0	1.30	7.51
213.0	1.18	8.21
214.0	1.08	8.97
215.0	0.99	9.78
216.0	0.90	10.65
225.0	0.55	23.49
250.0	0.42	17.28
300.0	0.30	30.05
350.0	0.28	28.44
400.0	0.23	27.07
450.0	0.21	30.82
500.0	0.19	33.64
550.0	0.19	33.90
600.0	0.19	30.85
650.0	0.19	29.50
700.0	0.19	28.81
750.0	0.19	28.39
800.0	0.20	28.48
850.0	0.20	28.65
900.0	0.20	29.04
950.0	0.20	29.40
1000.0	0.20	29.79
1500.0	0.24	29.34
2000.0	0.29	27.11
2500.0	0.38	21.50
3000.0	0.51	16.22

FREQUENCY (MHz)	GROUP DELAY (nsec)
100.0	2.230
129.0	2.630
130.0	2.590
140.0	2.900
150.0	3.170
160.0	3.630
166.0	4.000
167.0	4.070
170.0	4.320
180.0	5.390
185.0	6.140
186.0	6.310
187.0	6.490
188.0	6.690
189.0	6.890
190.0	7.090
199.0	9.190
200.0	9.410
201.0	9.630
202.0	9.830
203.0	10.020
204.0	10.180
205.0	10.320
206.0	10.430
207.0	10.510
208.0	10.560
209.0	10.580
210.0	10.580
211.0	10.540
212.0	10.470
213.0	10.370
214.0	10.240
215.0	10.090
216.0	9.920
225.0	8.030
250.0	4.820
300.0	2.940
350.0	2.070
400.0	1.590
450.0	1.290
500.0	1.090
550.0	0.940
600.0	0.830
650.0	0.740
700.0	0.670
750.0	0.630
800.0	0.580
850.0	0.550
900.0	0.520
950.0	0.490
1000.0	0.470
1500.0	0.370
2000.0	0.340
2500.0	0.330
3000.0	0.320

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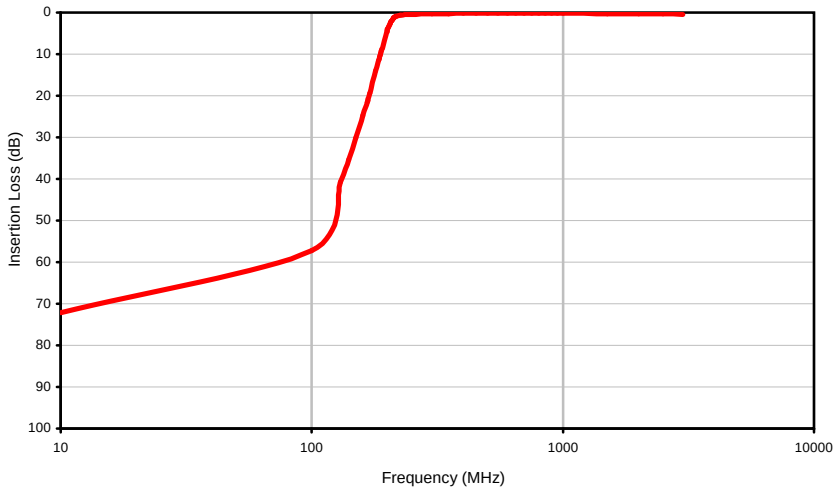
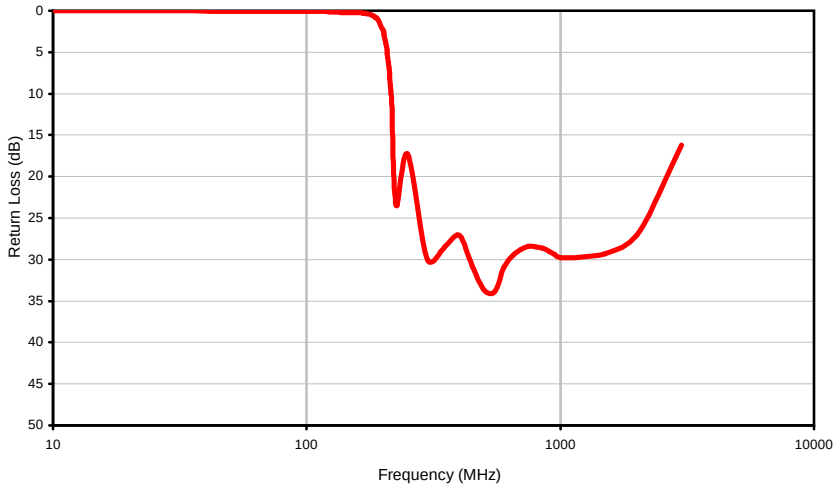
Typical Performance Curves

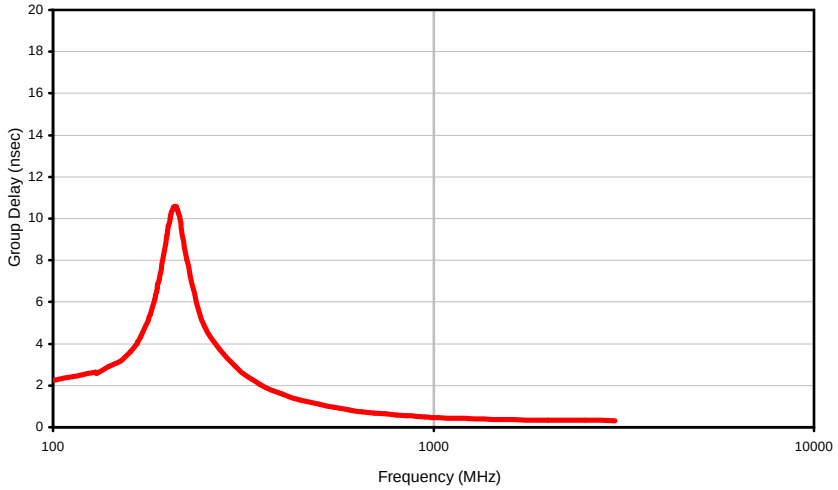
Insertion Loss



Return Loss



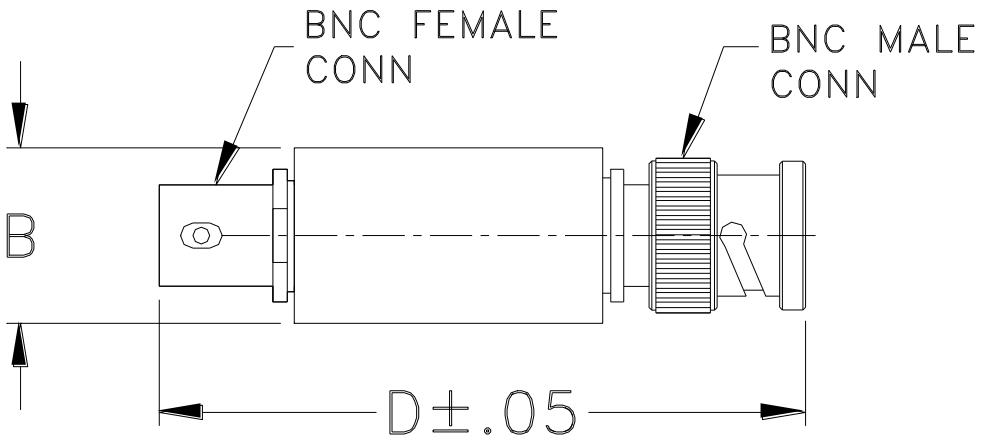
Group Delay



Case Style FF

FF55

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.

Mini-Circuits

Environmental Specifications ENV28

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.

Specification	Test/Inspection Condition	Reference/Spec
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