

# Bandpass Filter

## BFCN-1560+

50Ω 1500 to 1620 MHz



CASE STYLE: FV1206-1  
PRICE: \$3.95 ea. QTY (20)

### Maximum Ratings

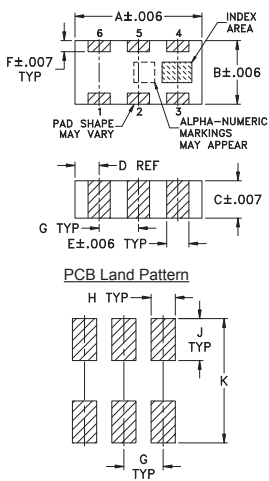
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	1.5W at 25°C

\*Passband rating, derate linearly to 0.25W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4,5,6

### Outline Drawing



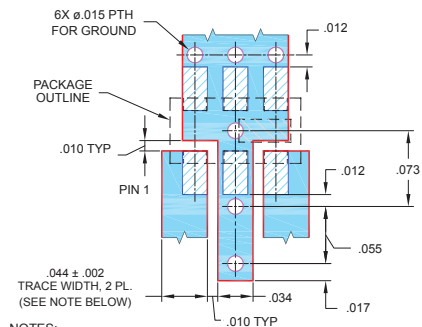
### Outline Dimensions (inch/mm)

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28

G	H	J	K	wt.
.039	.024	.042	.123	grams
0.99	0.61	1.07	3.12	.020

### Demo Board MCL P/N: TB-285 Suggested PCB Layout (PL-158)



- NOTES:**
- TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

**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)

### Features

- Excellent VSWR, 1.1:1 typ @ passband
- Small size
- Temperature stable
- LTCC construction

### Applications

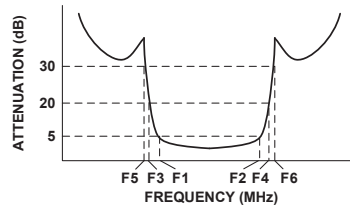
- Harmonic rejection
- Transmitters / receivers

### Bandpass Filter Electrical Specifications<sup>1,2</sup> (T<sub>AMB</sub> = 25°C)

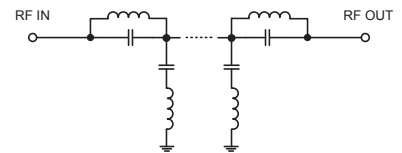
CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 5dB) F1 - F2	STOPBANDS (MHz)				VSWR (:1)	
		Loss > 20dB F3	Loss > 30dB Typ F4	Loss > 30dB Typ F5	Loss > 30dB Typ F6	Passband Max.	Stopband Typ.
1560	1500 - 1620	1100	2100	1040	2105 - 4200	1.7	20

1. Measured on Mini-Circuits Characterization Test Board TB-285.
2. This filter is not intended for use as a DC Blocking circuit element. In Application where DC voltage is present at either input or output ports, blocking capacitors are required at the corresponding RF port.

### Typical Frequency Response



### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	68.59	193.02
200	62.54	91.43
500	49.47	52.65
1040	33.62	25.94
1100	28.46	22.87
1250	16.02	11.46
1340	8.35	4.69
1400	4.54	2.09
1500	2.69	1.07
1560	2.61	1.16
1620	2.81	1.41
1780	4.32	1.35
1850	8.81	2.82
1910	15.77	4.78
2000	27.69	6.56
2100	44.20	8.12
2105	44.37	8.27
3500	31.29	44.55
4200	38.45	35.46

