

# Bandpass Filter

## BFCN-2900+

50Ω 2700 to 3100 MHz



CASE STYLE: FV1206-1

### 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

### Features

- Small size
- Temperature stable
- LTCC construction

### Applications

- Harmonic rejection
- Transmitters / receivers

#### +RoHS Compliant

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

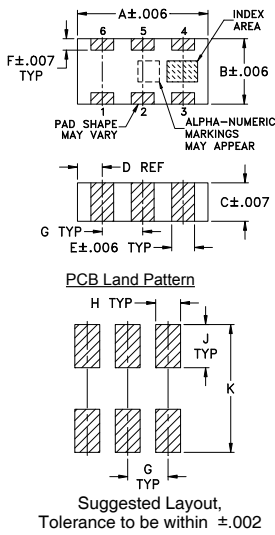
### Bandpass Filter Electrical Specifications<sup>1,2</sup> (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss 25dB Typ		Passband		Stopband
F <sub>c</sub>	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
2900	2700 - 3100	1850	4200	1800	4900 - 7000	2.3	3.6	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.

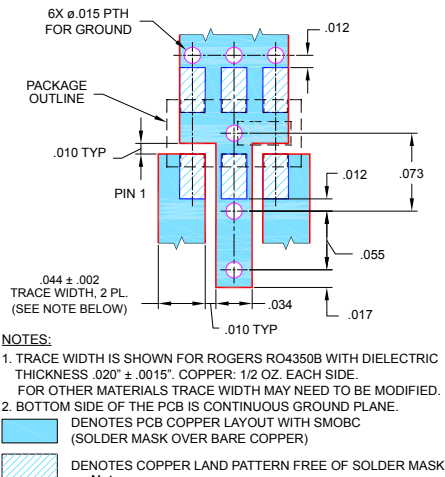
### Outline Drawing



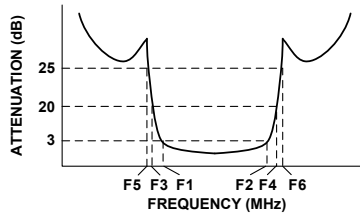
### Outline Dimensions (inch/mm)

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	

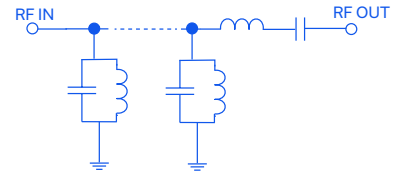
### Demo Board MCL P/N: TB-285 Suggested PCB Layout (PL-158)



### Typical Frequency Response

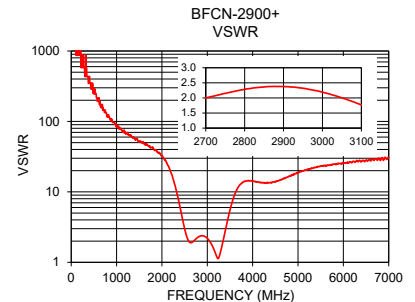
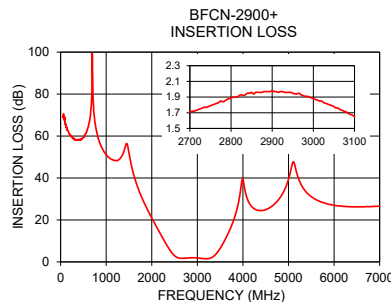


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	68.92	1737.18
500	59.22	289.53
1000	51.09	82.73
1800	29.79	42.38
1850	27.43	39.49
2200	12.97	18.70
2380	6.22	6.91
2480	3.38	3.42
2700	1.71	2.00
2900	1.98	2.38
3100	1.65	1.77
3400	3.55	2.87
3500	6.47	5.51
3650	12.39	10.69
4200	26.22	13.49
4900	33.76	17.57
5200	41.01	20.45
5500	31.08	23.18
7000	26.56	30.49



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](http://www.minicircuits.com/MCLStore/terms.jsp)

