

Bandpass Filter

BFCN-3010+

50Ω 2920 to 3100 MHz



CASE STYLE: FV1206
PRICE: \$3.95 ea. QTY (10-49)

Maximum Ratings

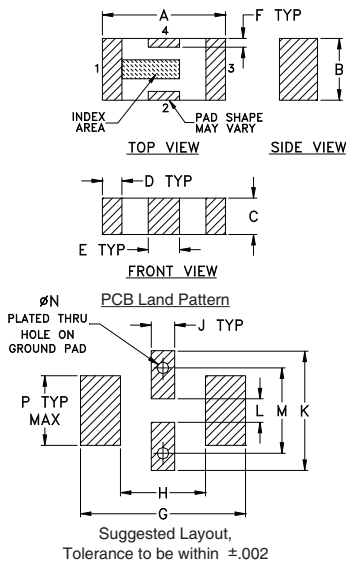
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	1.5W at 25°C

*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

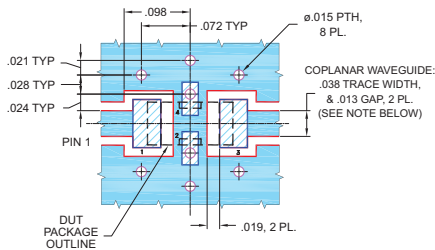
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.126	.063	.037	.020	.032	.009	.169	.087
3.20	1.60	0.94	0.51	0.81	0.23	4.29	2.21
J	K	L	M	N	P	wt	
.024	.122	.024	.087	.012	.071	grams	
0.61	3.10	0.61	2.21	0.30	1.80	0.20	

Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



- NOTES:
- COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015".
COPPER: 1/2 OZ. EACH SIDE.
FOR OTHER MATERIALS TRACE WIDTH & GAP 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

Features

- Good VSWR, 1.6:1 typ @ passband
- Small size
- Temperature stable
- LTCC construction

Applications

- Harmonic Rejection
- Transmitters / Receivers
- Point-to-Point communications

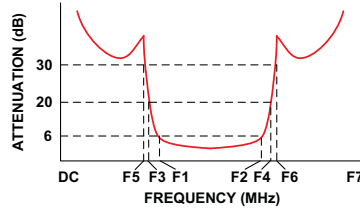
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications¹ at 25°C

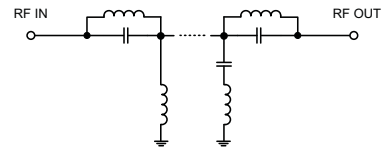
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	F1-F2		3010		MHz
	Insertion Loss	F1-F2		1.6	6	dB
	VSWR	F1-F2		1.6	3.0	:1
Stop Band, Lower	Insertion Loss	DC-F5	DC-1300	20	30	dB
		DC-F3	DC-1530	20	30	dB
	VSWR	DC-F3	DC-1530	20	20	:1
Stop Band, Upper	Insertion Loss	F4-F6	4450-4650	20	30	dB
		F6-F7	4650-6600	20	30	dB
	VSWR	F4-F7	4450-6600	20	20	:1

1. Measured on Mini-Circuits Characterization Test Board TB-270.

Typical Frequency Response

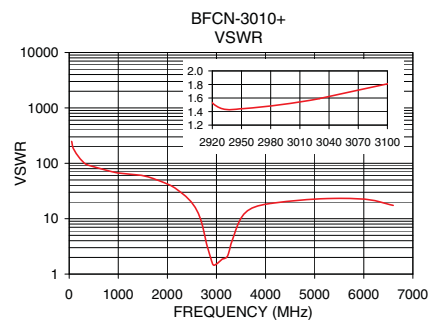
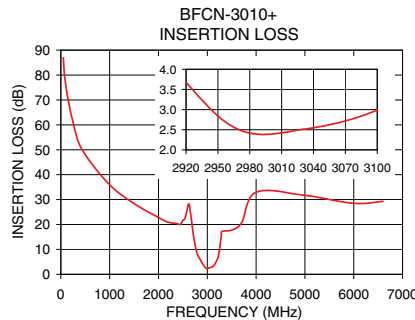


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	86.94	248.17
500	48.07	86.86
1300	31.07	62.05
1530	28.16	57.91
2700	18.27	8.31
2800	7.88	3.46
2920	3.03	1.53
3000	2.73	1.50
3010	2.56	1.53
3050	2.92	1.66
3100	3.15	1.83
3200	5.82	1.98
3250	10.05	2.45
3400	19.93	7.08
4100	28.17	18.50
4450	29.63	19.87
4650	34.88	20.70
6600	29.26	17.39



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-Circuits' applicable established test performance criteria and measurement instructions.
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