

Ceramic Bandpass Filter

50Ω 950 to 2200 MHz

BFCG-162W+



Generic photo used for illustration purposes only

CASE STYLE: GE0805C-3

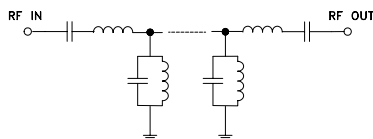
Features

- Extremely wide passband, 950-2200 MHz
- Small size 0805(2.0 x 1.25 mm)
- Temperature stable
- LTCC construction

Applications

- Wireless communication
- Harmonic Rejection
- Transmitters / receivers

Functional Schematic



Electrical Specifications^{1,2} at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—		1575		dB
	Insertion Loss	F1 - F2	—	1.8	3.0	dB
	VSWR	F1 - F2	—	2.0	—	:1
Stop Band, Lower	Insertion Loss	DC - F3	20	25	—	dB
Stop Band, Upper	Insertion Loss	F4 - F5	20	30	—	dB

1. Measured on Mini-Circuits Characterization Test Board TB-703+.

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.

Maximum Ratings

Operating Temperature	-55°C to 125°C
Storage Temperature ³	-55°C to 125°C
RF Power Input ⁴	0.5W at 25°C

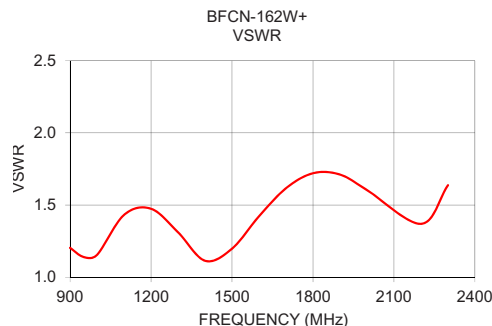
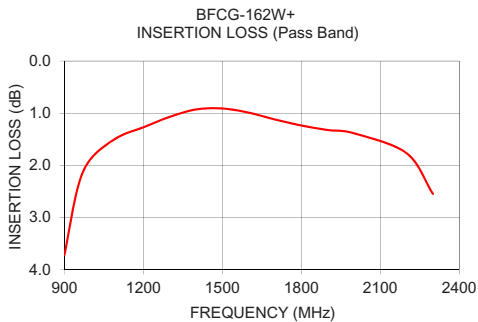
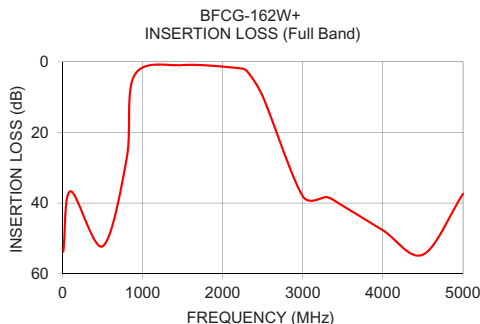
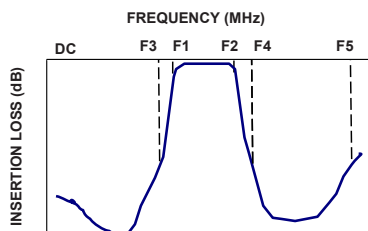
3. 12 months max.

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

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	53.73	168.77
100	36.66	233.22
500	52.27	29.38
800	27.55	4.05
900	3.72	1.20
1500	0.91	1.20
2200	1.77	1.37
2300	2.55	1.64
2500	9.79	6.26
3000	38.08	42.51
3300	38.31	60.19
3500	40.81	68.65
4000	47.71	72.79
4500	54.61	66.32
5000	37.41	30.84

Typical Frequency Response



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.

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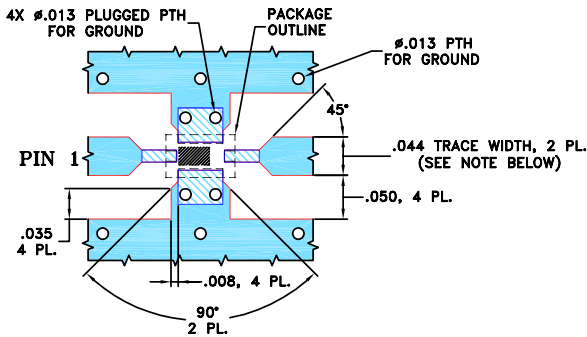
Page 1 of 2

Pad Connections

INPUT	1
OUTPUT	3
GROUND	2,4



Product Marking: N/A

Evaluation Board MCL P/N: TB-703+
Suggested PCB Layout (PL-397)

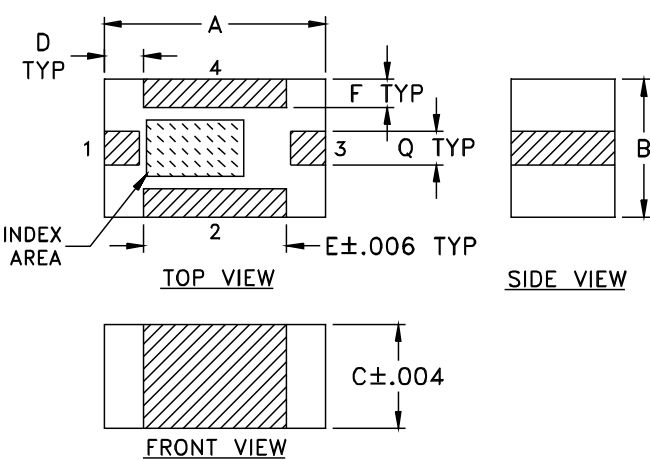


NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS $.020" \pm .0015"$. COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
2. 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.

Outline Drawing



Outline Dimensions (inch mm)

A	B	C	D	E	F	Q	wt
.079	.049	.037	.014	.051	.010	.012	grams
2.01	1.24	0.94	0.36	1.30	0.25	0.30	.020

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