

# Ceramic Bandpass Filter

## BFCG-5600+

50Ω 5150 to 5990 MHz



Generic photo used for illustration purposes only

CASE STYLE: GE0805C-3

### Features

- Low loss < 2.0 dB typ.
- Rejection up to 16 GHz
- Small size (0.079" x 0.049" x 0.037")
- Temperature stable
- Hermetically sealed

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

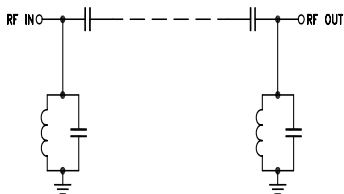
### Applications

- Harmonic Rejection
- Transmitters / Receivers
- WiFi / WLAN

### Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
<b>Pass Band</b>	Center Frequency	—		5600		dB	
	Insertion Loss	F1 - F2	5150 - 5990	—	1.2	2.2	dB
	VSWR	F1 - F2	5150 - 5990	—	1.6	—	:1
<b>Stop Band, Lower</b>	Insertion Loss	DC - F3	DC - 4200	—	25	—	dB
	VSWR	DC - F3	DC - 4200	—	30	—	:1
<b>Stop Band, Upper</b>	Insertion Loss	F4 - F5	9310 - 15750	—	20	—	dB
	VSWR	F4 - F5	9310 - 15750	—	40	—	:1

### Functional Schematic



### Maximum Ratings

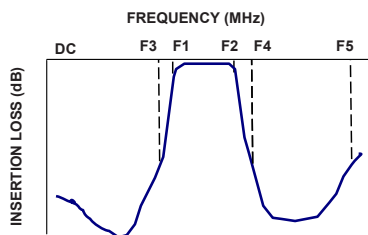
Operating Temperature	-40°C to 85°C
Storage Temperature <sup>1</sup>	-55°C to 100°C
RF Power Input <sup>2</sup>	0.5W at 25°C

1. 12 months max.

2. Passband rating, derate linearly to 0.125W at 85°C ambient

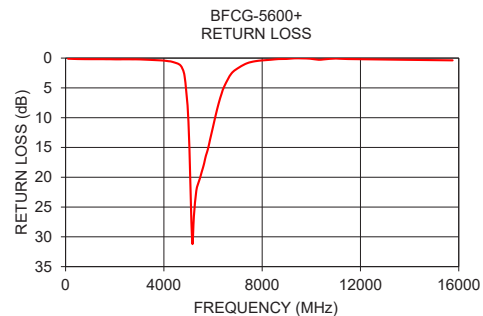
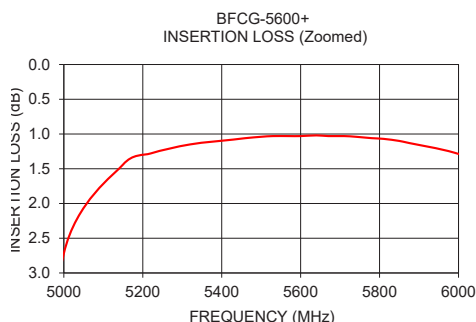
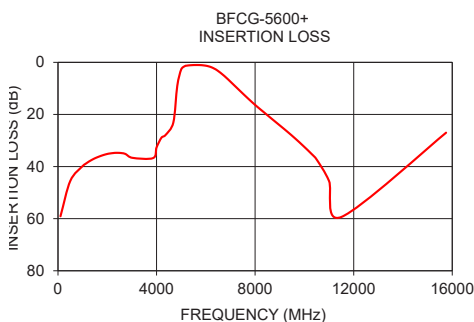
Permanent damage may occur if any of these limits are

### Typical Frequency Response



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100	59.09	174.29
500	45.49	110.80
1000	39.81	95.13
2510	34.76	86.40
3020	36.65	78.27
4200	28.90	32.67
4840	9.06	5.90
5150	1.44	1.06
5990	1.27	1.70
6470	3.13	3.83
8030	16.59	46.23
9310	26.63	386.49
10300	35.24	61.58
11500	59.35	109.64
15750	27.00	45.89



### 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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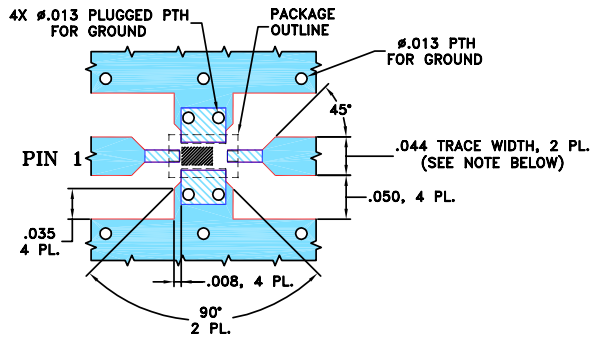
REV. A  
M151107  
ED-15034  
BFCG-5600+  
WZ/CP/AM  
200611

## 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)



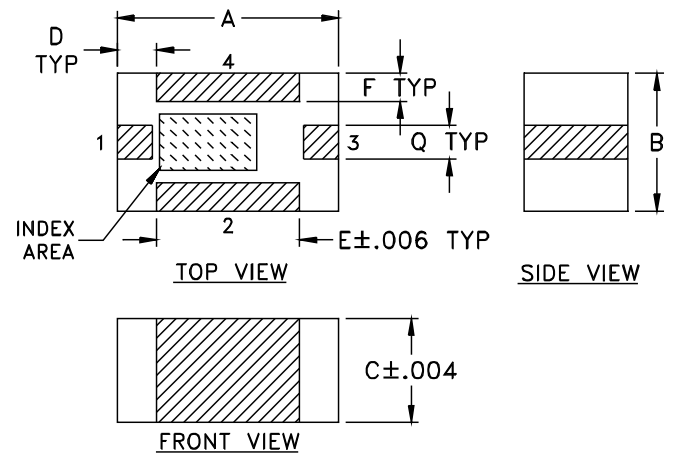
### NOTES:

- TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS  $.020" \pm .0015"$ . COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND 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.

## Outline Drawing



### Outline Dimensions ( $\frac{\text{inch}}{\text{mm}}$ )

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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