

# Surface Mount Band Stop Filter

## BSF-C160+

50Ω      150.3 to 169.7 MHz



CASE STYLE: HU1186

### The Big Deal

- High rejection, 48 dB typical
- Good VSWR, 1.2:1 typical in passband
- Stopband (150.3 to 169.7 MHz)
- Miniature shielded package

### Product Overview

The BSF-C160+ is stopband filter fabricated using SMT Technology. Covering 150.3 to 169.7 MHz stopband, this units offer good rejection. This unit uses a miniature high Q capacitors and wire welded inductors for high reliability. It has repeatable performance across production lots and consistent performance across temperature.

### Key Features

Feature	Advantages
High rejection, 48 dB typical	BSF-C160+ enables the filter to attenuate spurious signals and reject harmonics for broadband of frequencies.
Good VSWR 1.2:1 typical in the pass-band	This filter maintains typical VSWR over a passband frequency range which provided good interface when used with other devices.
Shielded package	Shielded package (Size of .087" x 0.80" x 0.25")reduced interface with and from the surrounding components.



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IF/RF MICROWAVE COMPONENTS

**Notes:** 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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).

For detailed performance specs  
& shopping online see web site

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50Ω 150.3 to 169.7 MHz

**BSF-C160+**



CASE STYLE: HU1186  
PRICE: \$39.95 ea. QTY (1-9)

## Features

- High rejection, 48 dB typical
- Good VSWR 1.2:1 typical in passband
- Aqueous washable
- Miniature shielded package

## Applications

- FM radio
- Receivers / Transmitters
- Lab use

## Electrical Specifications at 25°C

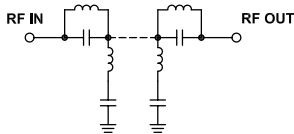
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band, Lower	Insertion Loss	DC-F1	DC - 115	-	0.6	dB
	VSWR	DC-F1	DC - 115	-	1.2	:1
Stop Band	Rejection	F4-F5	150.3-169.7	30	48	dB
	VSWR	F4-F5	150.3-169.7	-	7	:1
Pass Band, Upper	Insertion Loss	F2-F3	230-1500	-	0.8	dB
	VSWR	F2-F3	230-1500	-	1.2	:1

## Maximum Ratings

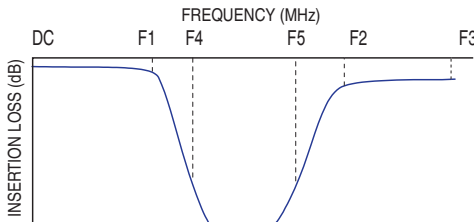
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	250 mW max.

Permanent damage may occur if any of these limits are exceeded.

## Functional Schematic



## Typical Frequency Response

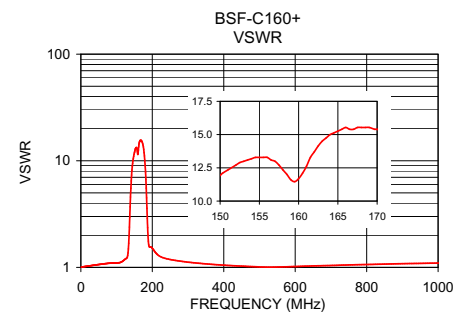
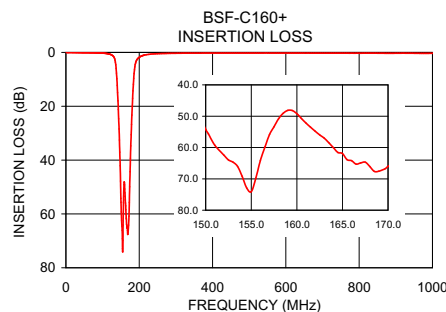


## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.0	0.03	1.01
30.0	0.06	1.04
80.0	0.16	1.09
115.0	0.51	1.14
130.0	1.53	1.16
135.0	3.60	1.61
140.0	12.25	4.51
144.0	24.67	7.70
146.0	32.54	9.04
150.3	55.65	11.17
160.0	49.19	8.77
169.7	66.75	9.74
174.0	49.92	7.83
180.0	23.28	4.67
185.0	9.67	2.09
190.0	3.96	1.07
200.0	1.83	1.28
230.0	0.66	1.12
800.0	0.29	1.09
1000.0	0.34	1.13

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.



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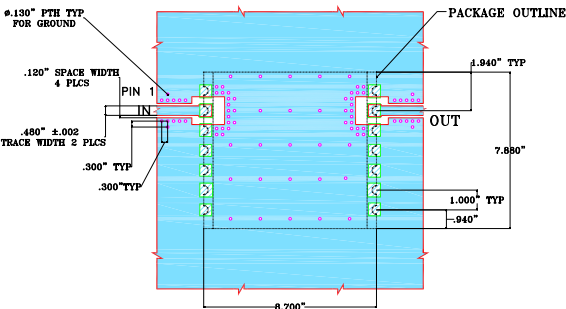
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REV. OR  
M131675  
BSF-C160+  
EDU1289  
URJ  
110712  
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Pin Connections

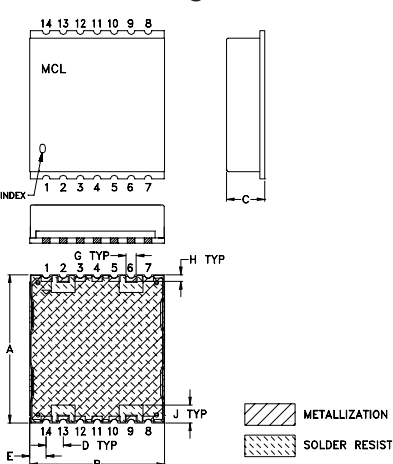
INPUT	2
OUTPUT	13
NOT CONNECTED	6,9
GROUND	1,3,4,5,7,8,10,11,12,14

Demo Board MCL P/N: TB-378+  
Suggested PCB Layout (PL-347)

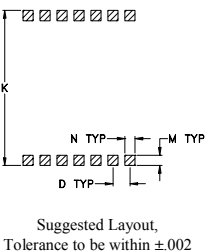


- NOTES:
- TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .030"±.003". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Outline Drawing



PCB Land Pattern



Outline Dimensions ( inch )

A	B	C	D	E	F	G	H
.870	.800	.25	.100	.097	--	.060	.040
22.10	20.32	6.35	2.54	2.46	--	1.52	1.02
J	K	L	M	N	P	wt	
.105	.910	--	.060	.060	--	grams	
2.67	23.11	--	1.52	1.52	--	2.85	