

Surface Mount Band Stop Filter

BSF-C160+

50Ω 150.3 to 169.7 MHz

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



CASE STYLE: HU1186

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 passband	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.

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



Surface Mount Band Stop Filter

BSF-C160+

50Ω 150.3 to 169.7 MHz



CASE STYLE: HU1186

Features

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

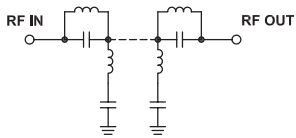
Applications

- 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	1.5	dB
	VSWR	DC-F1	DC - 115	-	1.2	1.6	: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	1.5	dB
	VSWR	F2-F3	230-1500	-	1.2	1.6	:1

Functional Schematic



Maximum Ratings

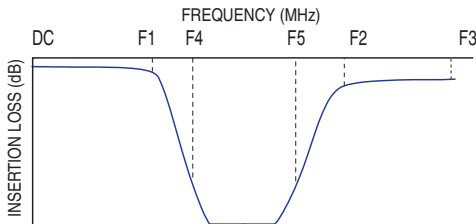
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	250 mW max.

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

Typical Performance Data at 25°C

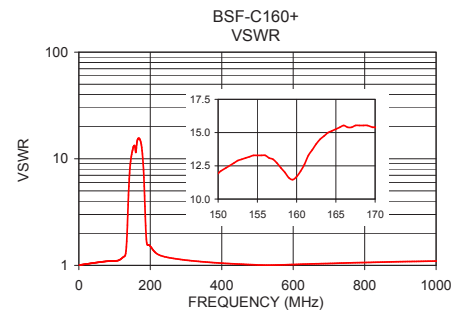
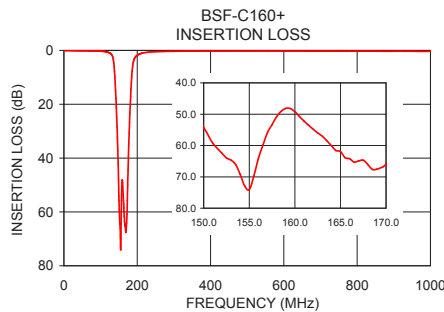
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.0	0.03	1.01
30.0	0.06	1.04
80.0	0.16	1.09
115.0	0.51	1.14
130.0	1.53	1.16
135.0	3.60	1.61
140.0	12.25	4.51
144.0	24.67	7.70
146.0	32.54	9.04
150.3	55.65	11.17
160.0	49.19	8.77
169.7	66.75	9.74
174.0	49.92	7.83
180.0	23.28	4.67
185.0	9.67	2.09
190.0	3.96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

Typical Frequency Response



+RoHS Compliant

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



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-Circuit's applicable established test performance criteria and measurement instructions.
- 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/WCLStore/terms.jsp



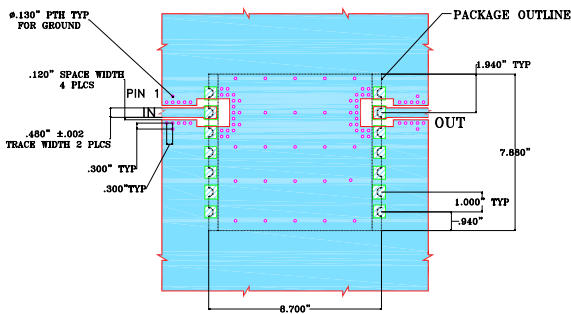
www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. A
M160153
BSF-C160+
EDU1289
URJ/NY
161230
Page 2 of 3

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)

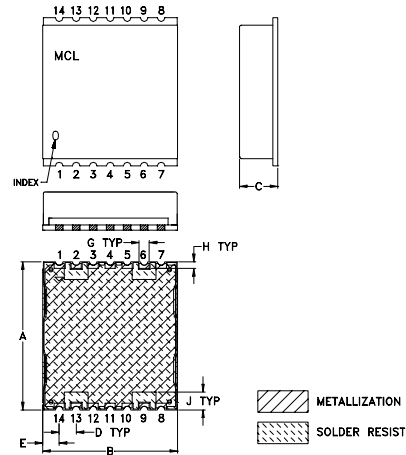


NOTES:

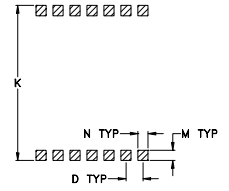
- TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .030"±.003". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
- BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Outline Drawing



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch / mm)

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	

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-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp