

Surface Mount Band Stop Filter

BSF-C125+

50Ω 110.25 to 139.75 MHz

The Big Deal

- High rejection, 48 dB typical
- Stopband (110.25 to 139.75 MHz)
- Miniature shielded package



CASE STYLE: HU1186

Product Overview

The BSF-C125+ is stopband filter fabricated using SMT Technology. Covering 110.25 to 139.75 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-C125+ enables the filter to attenuate spurious signals and reject harmonics for broadband of frequencies.
Shielded package	Shielded package (Size of .087" x 0.80" x 0.25") reduced interface with and from the surrounding components.
Application	Can be used in broadcast and FM system

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



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Features

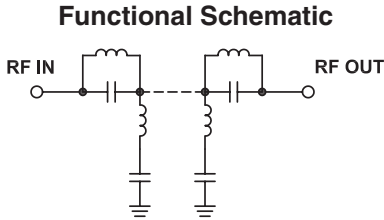
- High rejection, 48 dB typical
- Aqueous washable
- Miniature shielded package

Applications

- FM radio
- Broadcast system
- Lab use

Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band, Lower	Insertion Loss	DC-F1	DC - 84	-	0.6	1.5	dB
	VSWR	DC-F1	DC - 84	-	1.2	1.5	:1
Stop Band	Rejection	F4-F5	110.25-139.75	30	48	-	dB
	VSWR	F4-F5	110.25-139.75	-	11	-	:1
Pass Band, Upper	Insertion Loss	F2-F3	196-1000	-	0.6	1.5	dB
	VSWR	F2-F3	196-1000	-	1.3	1.7	:1



Maximum Ratings

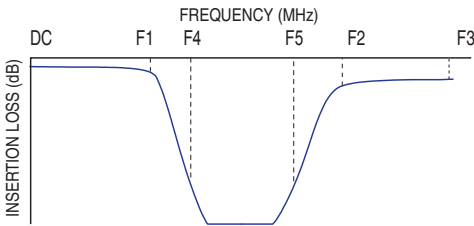
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	250 mW max.

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

Typical Performance Data at 25°C

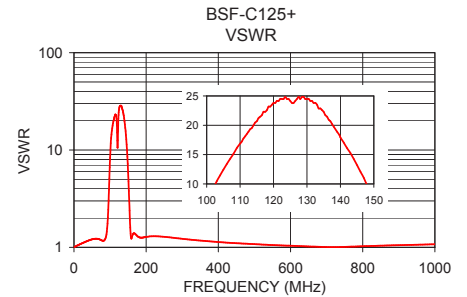
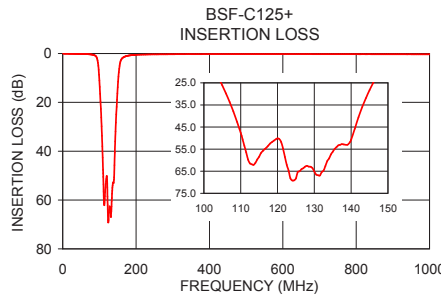
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.04	1.01
25.00	0.10	1.11
60.00	0.22	1.23
84.00	0.58	1.18
90.00	1.03	1.36
96.00	3.75	3.05
98.00	6.69	5.12
100.00	11.06	8.31
106.00	29.78	16.72
110.25	49.01	20.22
125.00	68.23	26.33
139.75	51.69	19.98
144.00	31.94	14.26
146.00	24.94	11.38
150.00	13.80	5.91
157.00	3.51	1.38
170.00	1.22	1.37
196.00	0.59	1.27
500.00	0.22	1.08
1000.00	0.32	1.08

Typical Frequency Response



+RoHS Compliant

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



Notes

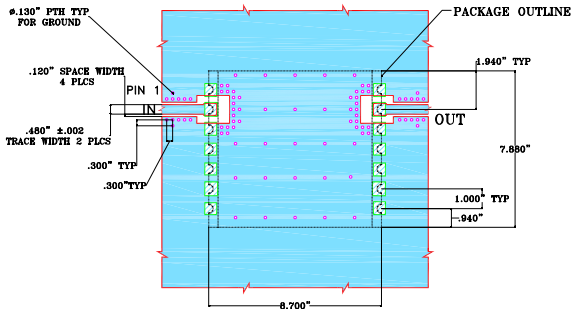
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Pin Connections

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)

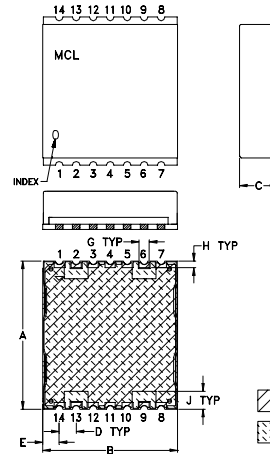


NOTES:

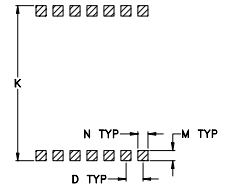
- TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .030" ±.003". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
- BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

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

Outline Drawing



PCB Land Pattern



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	

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