# **Bandpass Filter**

**RBP-98+** 

#### 75 to 131 MHz $50\Omega$

#### **Maximum Ratings**

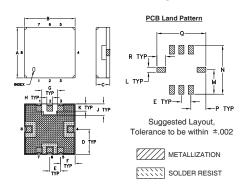
Operating Temperature	-40°C to 85°C		
Storage Temperature	-55°C to 100°C		
RF Power Input	0.5W at 25°C		

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

#### **Pin Connections**

RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8

#### Outline Drawing

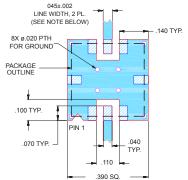


#### Outline Dimensions (inch)

В	С	D	Ε	F	G	Н	J
.350	.100	.175	.075	.100	.110	.040	.080
8.89	2.54	4.45	1.93	2.54	2.79	1.02	2.03
L	M	N	Р	Q	R		wt.
.040	.195	.390	.120	.390	.070	gı	rams
	<b>.350</b> 8.89 L	.350 .100 8.89 2.54 L M	.350 .100 .175 8.89 2.54 4.45 L M N	.350     .100     .175     .075       8.89     2.54     4.45     1.93       L     M     N     P	.350     .100     .175     .075     .100       8.89     2.54     4.45     1.93     2.54       L     M     N     P     Q	.350         .100         .175         .075         .100         .110           8.89         2.54         4.45         1.93         2.54         2.79           L         M         N         P         Q         R	B C D E F G H .350 .100 .175 .075 .100 .110 .040 8.89 2.54 4.45 1.93 2.54 2.79 1.02 L M P Q R .040 .195 .390 .120 .390 .070 gg

Note: Please refer to case style drawing for details

#### Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



- 1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS 1. TRACE WIDTH IS SHOWN FOR FAY WITH DIELECTRIC TRICKNESS .025" ± .002"; COPPER: 1/2 OZ. EACH SIDE.. FOR OTHER MATERIALS TRACE WIDTH 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

#### **Features**

- good VSWR, 1.3:1 typ. @ passband
- small size 0.35" x 0.35"
- · shielded case
- · aqueous washable

## **Applications**

- · harmonic rejection
- transmitters / receivers
- navigation

Generic photo used for illustration purposes only CASE STYLE: GP731

+RoHS Compliant

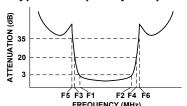
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



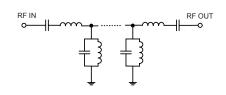
## Bandpass Filter Electrical Specifications (T<sub>AMB</sub>= 25°C)

CENTER PASSBAND FREQ. (MHz)		STOPE	BANDS (MHz)	VSWR (:1)	
(MHz)	(Loss < 3dB) F1 - F2	Loss > 20dB F3 F4	Loss > 35dB F5 F6	Passband Max.	Stopband Typ.
103	75 - 131	55 170	45 210 - 2000	1.7	18

#### **Typical Frequency Response**

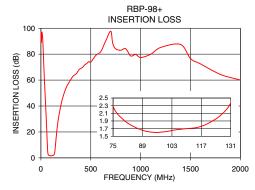


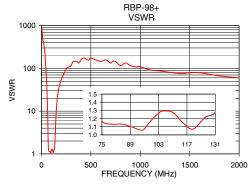
### **Functional Schematic**



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.3	97.25	868.59
20	88.97	434.30
45	44.01	91.43
55	27.51	33.42
62	14.67	10.75
66	7.56	3.83
70	3.49	1.40
75	2.29	1.17
103	1.65	1.26
131	2.37	1.28
137	3.66	1.98
143	7.29	4.56
150	13.21	10.19
170	27.25	28.96
210	43.79	62.05
650	90.23	157.93
1000	77.43	108.58
2000	60.02	59.91





- 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