Metal Shield

High Pass Filter

RHP-139+

50Ω 225 to 3000 MHz



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

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500,1000

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

INPUT	2
OUTPUT	6
GROUND	1, 3, 4, 5, 7, 8

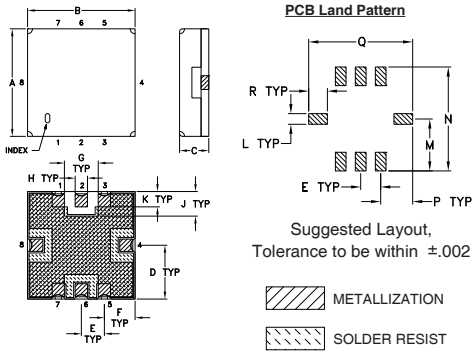
Features

- low insertion loss, 0.5dB typ. @ passband
- high rejection
- shielded case
- aqueous washable

Applications

- transmitters / receivers
- sub-harmonic rejection

Outline Drawing



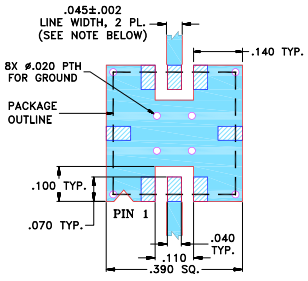
Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J
.350	**.350**	**.100**	**.175**	**.075**	**.100**	**.110**	**.040**	**.080**
8.89	8.89	2.54	4.45	1.91	2.54	2.79	1.02	2.03

K	L	M	N	P	Q	R	wt.
.050	**.040**	**.195**	**.390**	**.120**	**.390**	**.070**	**grams**
1.27	1.02	4.95	9.91	3.05	9.91	1.78	0.25

Note: Please refer to case style drawing for details

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



NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .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.

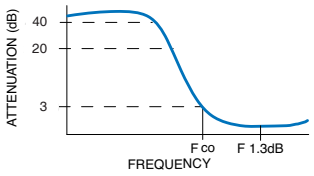
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

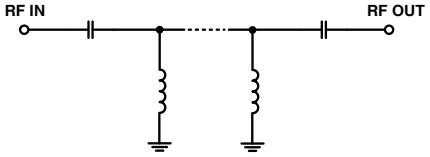
High Pass Filter Electrical Specifications (T_{AMB}= 25°C)

STOPBAND (MHz)		fco, MHz Nom.	PASSBAND (MHz)	VSWR (:1)	
(Loss > 40dB)	(Loss > 20dB)	(Loss 3dB)	(Loss < 1dB)	Stopband Typ.	Passband Typ.
DC - 75	DC - 100	139	225 - 3000	18	1.2

Typical Frequency Response



Functional Schematic



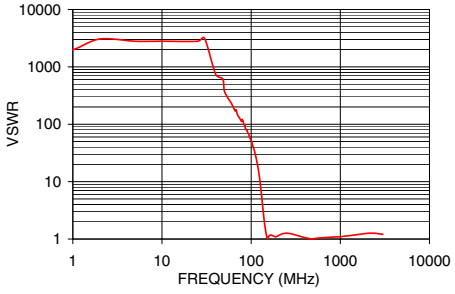
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.0	84.43	1997.13
10.0	84.90	2799.39
50.0	84.46	383.36
75.0	51.95	124.78
100.0	30.12	51.87
112.0	20.63	28.59
125.0	10.62	10.82
133.0	5.39	4.48
139.0	2.86	2.33
145.0	1.64	1.42
170.0	0.80	1.17
225.0	0.49	1.24
500.0	0.24	1.01
1000.0	0.24	1.10
1500.0	0.31	1.19
2000.0	0.39	1.26
2500.0	0.42	1.26
3000.0	0.47	1.21

RHP-139+
INSERTION LOSS



RHP-139+
VSWR



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