Surface Mount

Bandpass Filter

BPF-A175+

50Ω 170 to 180 MHz



CASE STYLE: HQ1157

Maximum Ratings

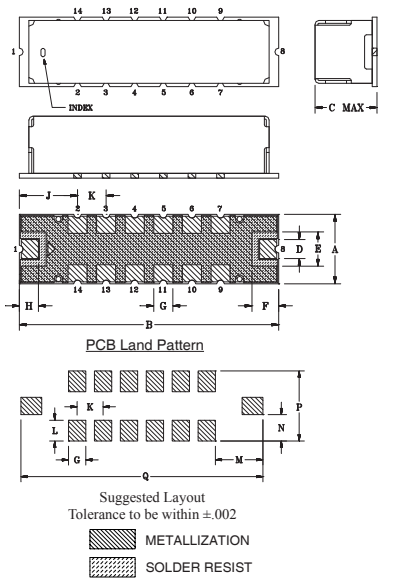
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.5W at 25°C

*Passband rating, derate linearly to 0.25W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN	1
RF OUT	8
GROUND	2,3,4,5,6,7,9,10,11,12,13,14

Outline Drawing

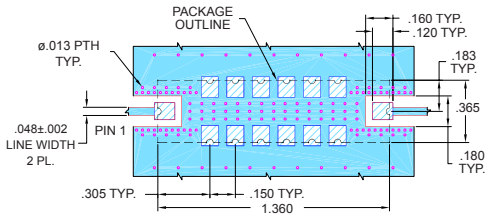


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
.365	1.360	.35	.100	.180	.140	.100	.100
9.27	34.54	8.89	2.54	4.57	3.58	2.54	2.54

J	K	L	M	N	P	Q	wt.
.305	.150	.120	.275	.152	.405	1.400	grams
7.75	3.81	3.05	6.99	3.87	10.29	35.65	4.0

Demo Board MCL P/N: TB-363+
Suggested PCB Layout(PL-227)



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

Features

- Good VSWR, 1.2:1 typ @ passband
- High stop band rejection

Application

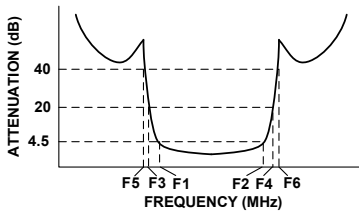
- Military communications
- Harmonic rejection
- Transmitters/receivers

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

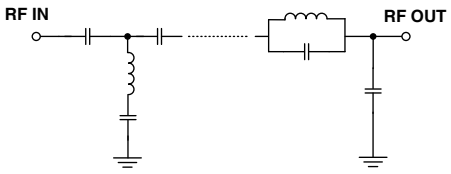
Bandpass Filter Electrical Specifications (T_{AMB}= 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4.5dB) F1 - F2	STOPBANDS (MHz) Loss > 20dB F3	F4	Loss > 40dB F5	F6	VSWR (:1) Passband Max.	Stopband Typ.
175	170 - 180	154	200	144	208 - 1500	1.7	20

Typical Frequency Response



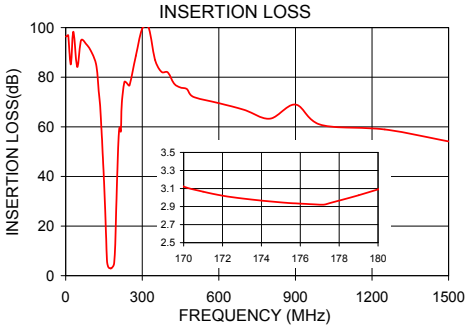
Functional Schematic



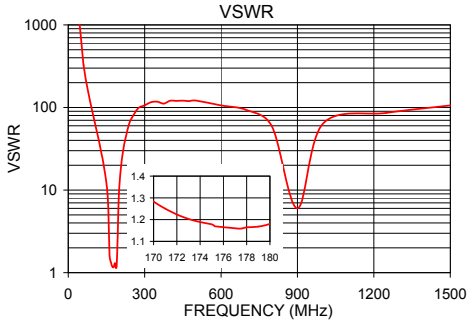
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1	96.37	54029.76
30	98.36	1503.32
80	93.37	145.37
144	51.47	16.37
154	28.15	8.95
170	3.15	1.25
175	3.01	1.17
180	3.16	1.20
190	5.18	1.21
198	27.41	7.59
200	34.40	10.12
208	56.76	20.24
230	78.08	49.56
300	99.64	106.17
400	81.94	120.68
600	69.55	106.04
900	69.00	6.00
1000	60.80	63.67
1500	54.12	106.03

INSERTION LOSS



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