

# Bandpass Filter

## BPF-A75+

50Ω 72 to 78 MHz

### Maximum Ratings

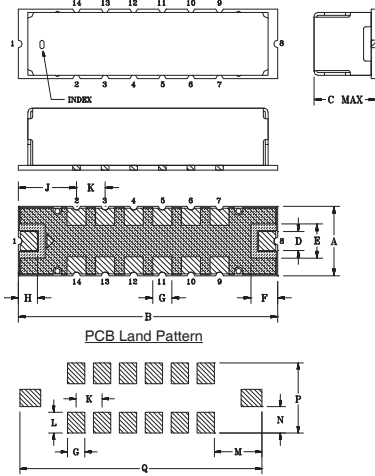
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.5W at 25°C

\*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



Suggested Layout  
Tolerance to be within ±.002

METALLIZATION  
 SOLDER RESIST

### Outline Dimensions (inch/mm)

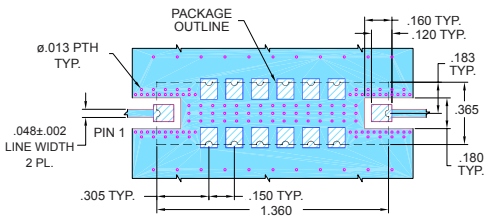
A	B	C	D	E	F	G	H
.365	1.360	.35	.100	.180	.100	.100	.100
9.27	34.54	8.89	2.54	4.57	3.56	2.54	2.54

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	3.86	10.29	35.56	4.0

Note: Please refer to case style drawing for details

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



#### NOTES:

- 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.
  - 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

- High rejection
- Good VSWR, 1.2:1 typ @ passband
- Shielded case
- Aqueous washable

### Applications

- Military communications
- Harmonic rejection
- Transmitters/receivers



Generic photo used for illustration purposes only

CASE STYLE: HQ1157

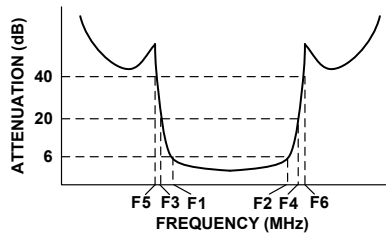
**+RoHS Compliant**

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

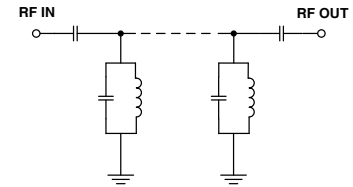
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 6dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 40dB		Passband		Stopband
F <sub>c</sub>	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
75	72 - 78	65	88	62	95 - 750	1.2	1.6	20

### Typical Frequency Response

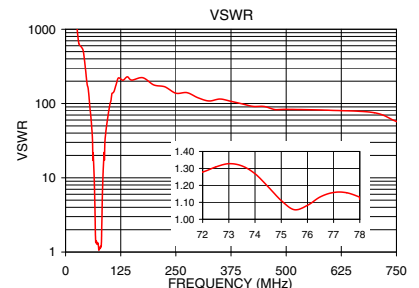


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1	85.28	15791.02
30	87.00	643.78
62	54.00	17.39
65	31.77	9.42
67	14.81	2.76
68	8.71	1.46
72	3.98	1.28
73	3.79	1.33
75	3.53	1.11
76	3.49	1.08
78	3.63	1.13
82	7.61	2.11
84	17.18	7.70
88	35.00	17.39
95	49.71	61.14
101	58.45	99.98
400	63.54	99.13
750	61.94	57.39



#### 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](http://www.minicircuits.com/MCLStore/terms.jsp)

