Surface Mount **Bandpass Filter**

50Ω 800 to 1000 MHz

SYBP-92+



CASE STYLE: TT1423

Features

- · High power handling, 7W
- Small size
- Temperature stable
- Excellent rejection

Applications

- Military radio
- Cellular
- GSM
- ISM

Functional Schematic



Typical Frequency Response



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

Electrical Specifications at 25°C

Parar	neter	F#	Frequency (MHz)	Min.	Тур. Мах.		Unit
	Center Frequency		—	—	900	_	MHz
Pass Band	Insertion Loss	F1-F2	800 - 1000	—	1.9	2.8	dB
	VSWR	F1-F2	800 - 1000	_	1.6	2.1	:1
Stop Bond Lower	Insertion Loss		DC - 530	20	23	_	dB
Stop Ballu, Lower	VSWR	DC-F3	DC - 530	_	12	_	:1
Ston Bond Upper Insertion Loss		F4-F5	1550 - 3000	20	27	_	dB
Stop Ballu, Opper	VSWR	F4-F5	1550 - 3000		10	_	:1

Maximum Ratings				
Operating Temperature	-40°C to 85°C			
Storage Temperature	-55°C to 100°C			
RF Power Input	7W* max. at 25°C			

*Passband rating, derate linearly to 3W at 85°C ambient

Permanent damage may occur if any of these limits are exceeded

Typical Performance Data at 25°C

	<i>,</i> ,			
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)		
1.00	95.93	3014.56		
100.00	57.95	179.36		
200.00	57.87	46.52		
300.00	57.43	24.06		
400.00	44.24	16.44		
450.00	37.39	14.52		
500.00	30.07	13.16		
530.00	25.54	12.43		
700.00	4.73	3.24		
800.00	2.24	1.64		
1000.00	2.02	1.52		
1550.00	28.43	7.73		
1800.00	38.24	20.47		
2000.00	36.48	27.60		
2500.00	52.46	33.50		
3000.00	33.80	29.13		





SYBP-92+ VSWR 10000 1000 /SWR 100 10 1 0 500 1000 1500 2000 2500 3000 FREQUENCY (MHz)

 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 Mini-Circuits



Bandpass Filter



Pin Connections

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

Demo Board MCL P/N: TB-517+ Suggested PCB Layout (PL-308)



NOTES:

NULES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS R04350B WITH THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP 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

Outline Drawing



PCB L and Pattern



Suggested Lavout. Tolerance to be within ±.002

METALLIZATION SOLDER RESIST

Outline Dimensions (inch)

G H	F	E	D	С	В	Α
.060 .065	.065	.040	.090	.15	.31	.25
1.52 1.65	1.65	1.02	2.29	3.81	7.87	6.35
wt.		Q	Ν	L	К	J
grams		.070	.105	.060	.060	.300
0.50		1.78	2.67	1.52	1.52	7.62

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