

# Low Pass Filter

SBLP-933+

50Ω Flat Time Delay DC to 560 MHz

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

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

### Features

- flat group delay for low pulse distortion
- rugged shielded case
- other SBLP models available with wide selection of cut-off frequencies

### Applications

- linear modulation techniques
- voice transmission applications
- digital communications



CASE STYLE: FF99

Connectors	Model	Price	Qty.
SMA	SBLP-933+	\$38.95 ea.	(1-9)

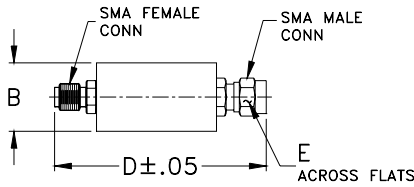
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco, MHz Nom.	STOPBAND (MHz)		VSWR (:1)		GROUP DELAY VARIATION (nsec)		
		(loss < 1.2 dB)	(loss > 20 dB)	DC-0.2fco	DC-0.6fco	DC-fco	DC-2fco	DC-2.67fco
Min.	(loss 3 dB)	(loss > 10 dB)	(loss > 20 dB)	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
DC-560	933	1866-2490	2490	1.3:1	2.2:1	0.09	0.2	0.28

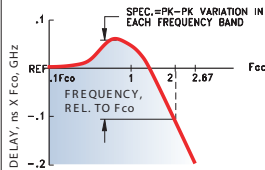
### Outline Drawing



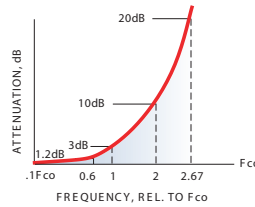
### Outline Dimensions (inch/mm)

B	D	E	wt
.67	1.98	.312	grams
17.02	50.29	7.92	42.0

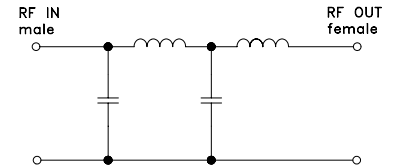
TYPICAL GROUP DELAY



TYPICAL FREQUENCY RESPONSE INSERTION LOSS

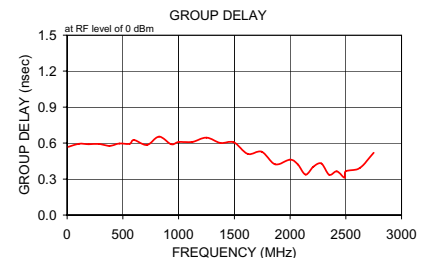
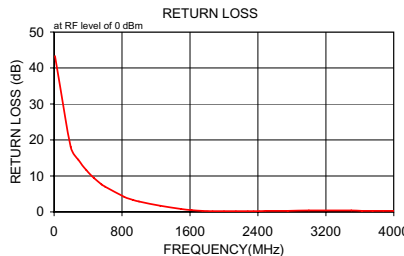
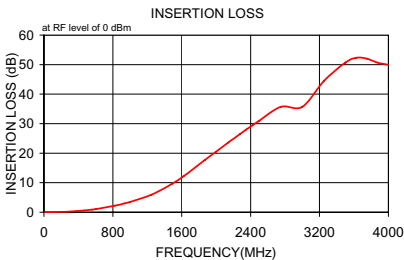


electrical schematic



### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{X}$	$\sigma$			
10.0	0.01	0.1	43.3	10.0	0.568
195.0	0.11	0.1	18.1	105.0	0.594
285.0	0.21	0.1	14.5	195.0	0.591
380.0	0.38	0.1	11.6	285.0	0.593
470.0	0.59	0.1	9.4	380.0	0.577
560.0	0.88	0.1	7.6	470.0	0.596
600.0	1.05	0.1	7.0	560.0	0.594
825.0	2.24	0.1	4.2	600.0	0.626
933.0	3.00	0.1	3.3	715.0	0.584
1000.0	3.49	0.1	2.9	825.0	0.654
1250.0	5.97	0.1	1.7	933.0	0.591
1495.0	9.72	0.1	0.8	1000.0	0.609
1620.0	12.16	0.2	0.5	1125.0	0.610
1745.0	14.88	0.2	0.3	1250.0	0.645
1866.0	17.63	0.3	0.2	1375.0	0.601
2000.0	20.52	0.3	0.2	1495.0	0.606
2140.0	23.58	0.3	0.2	1620.0	0.510
2280.0	26.55	0.2	0.2	1745.0	0.528
2350.0	28.00	0.2	0.2	1866.0	0.423
2420.0	29.40	0.2	0.2	2000.0	0.462
2490.0	30.81	0.3	0.3	2070.0	0.422
2500.0	30.99	0.3	0.3	2140.0	0.338
2750.0	35.70	0.5	0.3	2210.0	0.404
3000.0	35.69	1.0	0.4	2280.0	0.430
3250.0	44.45	2.1	0.4	2350.0	0.336
3500.0	50.66	4.7	0.4	2420.0	0.364
3625.0	52.33	4.9	0.3	2490.0	0.310
3750.0	52.01	3.4	0.3	2500.0	0.366
3875.0	50.70	2.2	0.3	2625.0	0.392
4000.0	49.92	2.5	0.3	2750.0	0.519



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IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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](http://www.minicircuits.com/MCLStore/terms.jsp).

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