

# Surface Mount Low Pass Filter

# SCLF-23+ SCLF-23

50Ω DC to 23 MHz

## Maximum Ratings

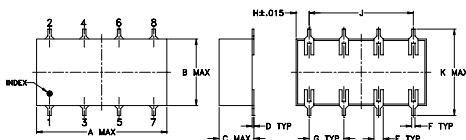
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

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

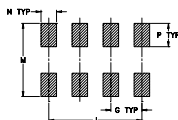
## Pin Connections

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

## Outline Drawing



### PCB Land Pattern



Suggested Layout,  
Tolerance to be within ±.002

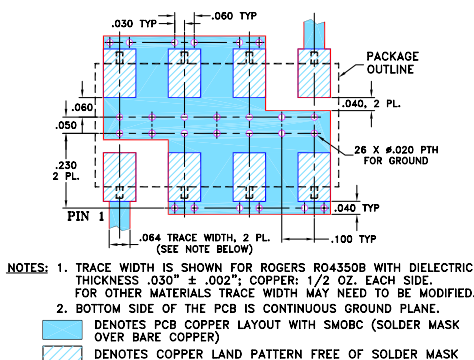
## Outline Dimensions (inch)

A	B	C	D	E	F	G
0.75	0.38	0.28	0.01	0.05	0.02	0.2
19.05	9.65	7.11	0.25	1.27	0.51	5.08

H	J	K	M	N	P	wt
0.075	0.6	0.45	0.47	0.1	0.15	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.60

## Demo Board MCL P/N: TB-187+ Suggested PCB Layout (PL-049)



## Features

- wide selection of cut-off frequencies
- excellent rejection
- custom models available

## Applications

- defense communications
- receivers/transmitters
- harmonic rejection of VCOs



CASE STYLE: YY161  
PRICE: \$8.95 ea. QTY (1-9)

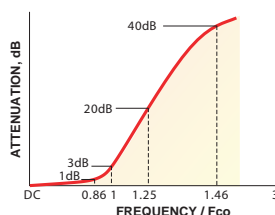
+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)

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

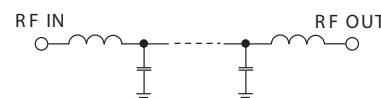
## Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco, (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
		(loss > 20 dB)	(loss > 40 dB)	Pass band Typ.	Stop band Typ.
DC-23	25	31-34	34-320	1.5	18

## typical frequency response



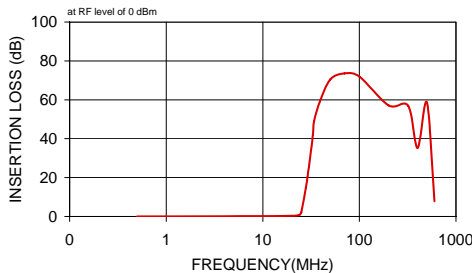
## Electrical Schematic



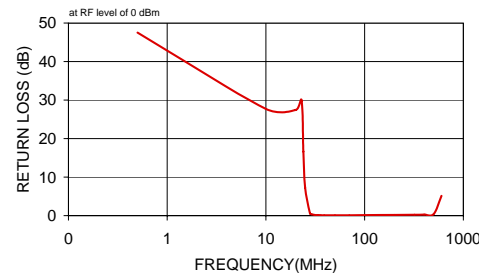
## Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
	$\bar{x}$	$\sigma$	
0.50	0.04	0.00	47.53
10.00	0.15	0.01	27.68
20.00	0.34	0.01	27.41
23.00	0.56	0.02	29.85
24.00	0.86	0.07	16.61
25.00	2.08	0.27	7.30
28.00	14.92	0.90	0.58
29.00	20.12	0.97	0.36
31.00	30.51	1.17	0.20
33.00	41.95	1.57	0.14
34.00	49.11	2.08	0.13
39.00	59.20	1.29	0.09
50.00	70.50	1.95	0.09
70.00	73.61	3.76	0.09
100.00	71.99	3.37	0.12
200.00	57.14	0.56	0.17
320.00	56.92	0.68	0.21
400.00	35.33	0.58	0.28

## SCLF-23 INSERTION LOSS



## SCLF-23 RETURN LOSS



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IF/RF MICROWAVE COMPONENTS

For detailed performance specs  
& shopping online see web site

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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-Circuit's 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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