

# Surface Mount Low Pass Filter

# SALF-800+ SALF-800

50Ω DC to 800 MHz

## Maximum Ratings

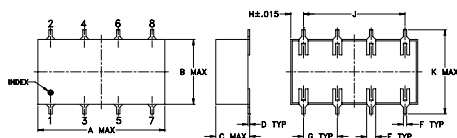
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

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

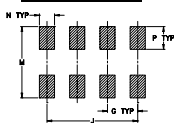
## Pin Connections

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

## Outline Drawing



### PCB Land Pattern

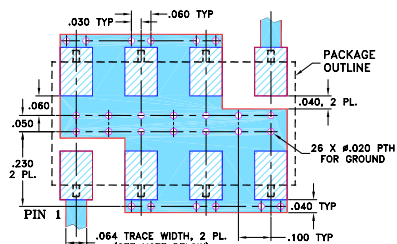


Suggested Layout,  
Tolerance to be within ±0.02

## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.75	.38	.20	.010	.050	0.51	.200
19.05	9.65	5.08	0.25	1.27	0.51	5.08
H	J	K	M	N	P	wt
.075	.600	.450	.470	.100	.150	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.6

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



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .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

- 7-section elliptic function
- excellent rejection

## Applications

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



CASE STYLE: YY101  
PRICE: \$6.95 ea. QTY (1-9)

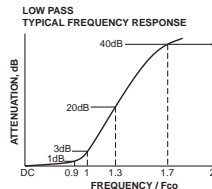
+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)

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

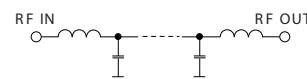
## Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco, (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
		(loss > 20 dB) Min.	(loss > 35 dB) Min.	Pass band typ.	Stop band typ.
(loss < 1 dB)	(loss 3 dB) Typ.				
DC-800	935	1200-1300	1330-2550	1.6	18

## typical frequency response



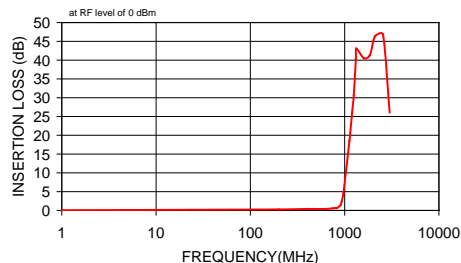
## Electrical Schematic



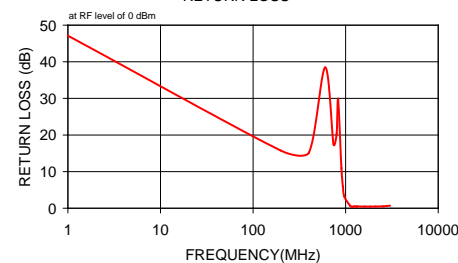
## Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
	$\bar{x}$	$\sigma$	
1.00	0.04	0.00	47.13
200.00	0.27	0.00	15.74
400.00	0.39	0.01	15.12
600.00	0.37	0.01	38.43
740.00	0.55	0.01	17.54
800.00	0.63	0.01	20.34
830.00	0.65	0.02	29.56
900.00	1.35	0.12	10.94
935.00	2.59	0.21	5.93
970.00	4.51	0.33	3.16
1125.00	18.55	0.47	0.60
1200.00	26.00	0.55	0.41
1250.00	30.75	0.68	0.52
1315.00	40.35	1.18	0.41
1330.00	43.09	1.48	0.49
1600.00	40.51	0.28	0.45
1850.00	41.36	0.22	0.46
2100.00	46.38	0.40	0.46
2550.00	46.79	1.09	0.51
3000.00	26.11	0.22	0.71

## SALF-800 INSERTION LOSS



## SALF-800 RETURN LOSS



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

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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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