

Surface Mount Low Pass Filter

SALF-800+ SALF-800

50Ω DC to 800 MHz

Maximum Ratings

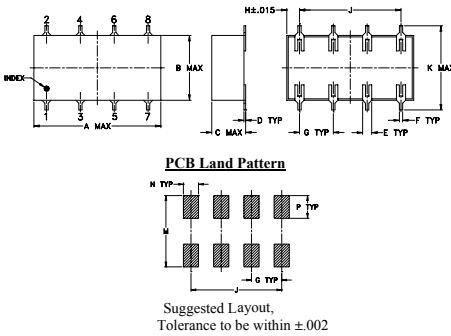
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

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

Pin Connections

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

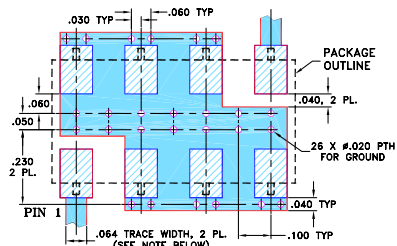
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.75	.38	.20	.010	.050	.020	.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:
- 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.
 - 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

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

Features

- 7-section elliptic function
- excellent rejection

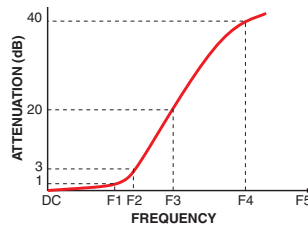
Applications

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

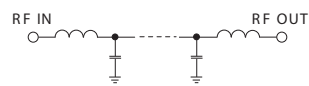
Electrical Specifications

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-800	—	—	1.0	dB
	Freq. Cut-Off	F2	935	—	3.0	—	dB
	VSWR	DC-F1	DC-800	—	1.6	—	:1
Stop Band	Rejection Loss	F3-F4	1200-1300	20	—	—	dB
		F4-F5	1300-2550	35	—	—	dB
	VSWR	F3-F5	1200-2550	—	18	—	:1

Typical Frequency Response



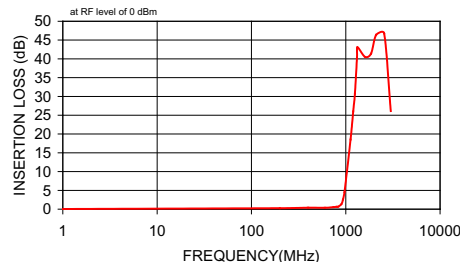
Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
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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

