

Surface Mount Low Pass Filter

SALF-396+ SALF-396

50Ω DC to 396 MHz

Maximum Ratings

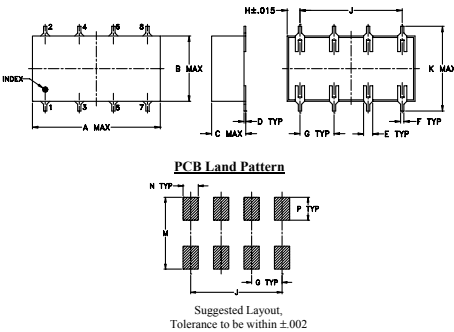
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

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

Pin Connections

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

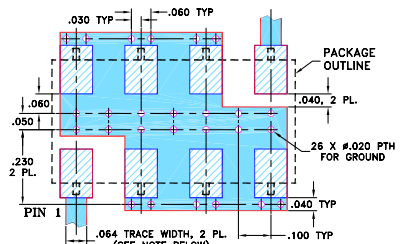
Outline Drawing



Outline Dimensions (inch)

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

- 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-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

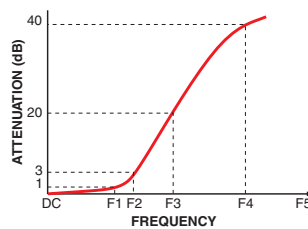
Applications

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

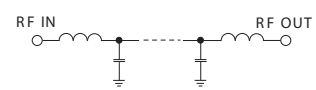
Electrical Specifications

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-396	—	—	1.0	dB
	Freq. Cut-Off	F2	458	—	3.0	—	dB
	VSWR	DC-F1	DC-396	—	1.3	—	:1
Stop Band	Rejection Loss	F3-F4	570-620	20	—	—	dB
		F4-F5	620-1430	35	—	—	dB
	VSWR	F3-F5	570-1430	—	18	—	:1

Typical Frequency Response



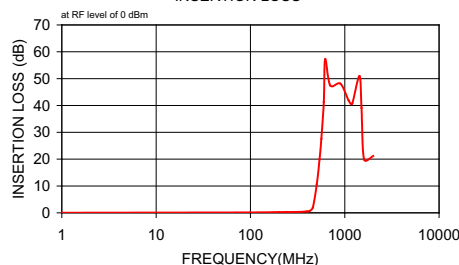
Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
	\bar{x}	σ	
1.00	0.03	0.00	48.94
100.00	0.15	0.00	22.44
200.00	0.27	0.00	17.96
320.00	0.35	0.01	22.46
396.00	0.51	0.01	35.39
420.00	0.66	0.02	25.04
458.00	1.95	0.19	7.92
505.00	10.58	0.60	1.23
540.00	19.96	0.78	0.53
565.00	27.57	1.00	0.43
600.00	41.32	2.14	0.35
620.00	57.20	5.41	0.34
700.00	47.53	0.98	0.32
900.00	48.13	0.53	0.30
1100.00	41.85	0.37	0.30
1200.00	40.69	0.38	0.34
1430.00	50.93	1.56	0.26
1505.00	39.15	1.05	0.32
1600.00	19.94	1.20	0.52
2000.00	21.19	0.18	0.42

SALF-396 INSERTION LOSS



SALF-396 RETURN LOSS

