

Surface Mount Low Pass Filter

SALF-580+ SALF-580

50Ω DC to 580 MHz

Maximum Ratings

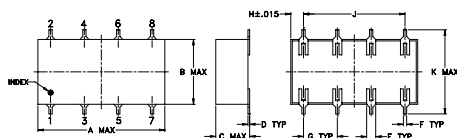
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

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

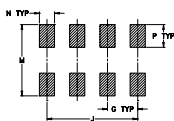
Pin Connections

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

Outline Drawing



PCB Land Pattern

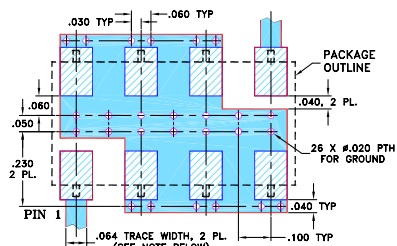


Suggested Layout,
Tolerance to be within ±0.02

Outline Dimensions (inch/mm)

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

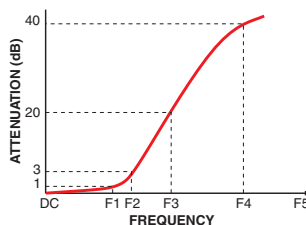
Applications

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

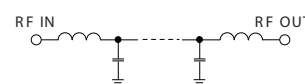
Electrical Specifications

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-580	—	—	1.0	dB
	Freq. Cut-Off	F2	720	—	3.0	—	dB
	VSWR	DC-F1	DC-580	—	1.5	—	:1
Stop Band	Rejection Loss	F3-F4	1000-1300	20	—	—	dB
		F4-F5	1300-2100	40	—	—	dB
	VSWR	F3-F5	1000-2100	—	18	—	:1

Typical Frequency Response



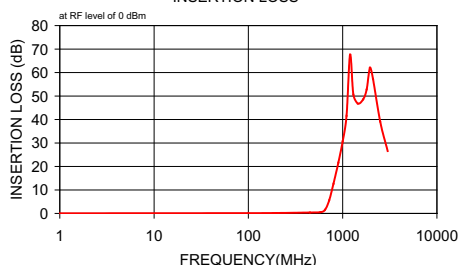
Electrical Schematic



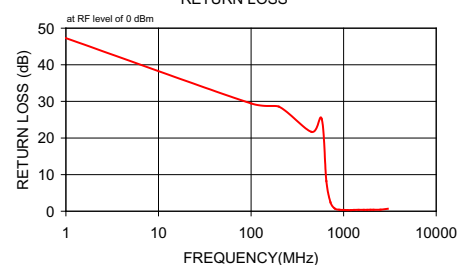
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
	\bar{x}	σ	
1.00	0.04	0.00	47.27
100.00	0.11	0.00	29.46
200.00	0.17	0.00	28.57
450.00	0.38	0.00	21.67
580.00	0.53	0.02	25.19
650.00	1.55	0.09	8.24
720.00	5.58	0.22	2.46
800.00	12.60	0.27	0.77
900.00	21.59	0.30	0.41
1000.00	30.70	0.37	0.35
1100.00	41.57	0.60	0.32
1200.00	67.56	3.00	0.32
1300.00	50.61	0.64	0.36
1450.00	46.79	0.32	0.39
1650.00	48.57	0.31	0.38
1800.00	52.85	0.40	0.39
1950.00	62.05	1.11	0.41
2100.00	57.28	0.60	0.40
2500.00	39.17	0.14	0.42

SALF-580 INSERTION LOSS



SALF-580 RETURN LOSS



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IF/RF MICROWAVE COMPONENTS

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