

Low Pass Filter

SALF-680+

50Ω DC to 680 MHz

Maximum Ratings

Operating Temperature	-40°C to 85°C
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Storage Temperature	-55°C to 100°C
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Power Input	0.5W max.
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Permanent damage may occur if any of these limits are exceeded.

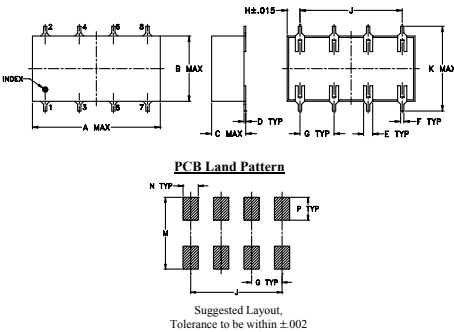
Pin Connections

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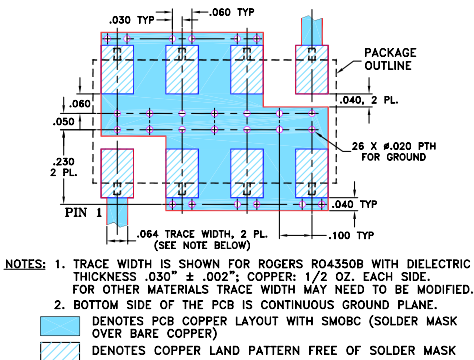
Outline Drawing



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

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-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

Features

- 7-section elliptic function
- excellent rejection

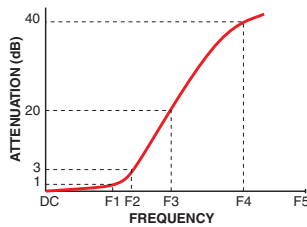
Applications

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

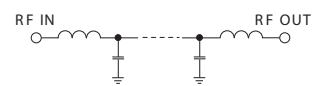
Electrical Specifications

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-680	—	—	1.0	dB
	Freq. Cut-Off	F2	790	—	3.0	—	dB
	VSWR	DC-F1	DC-680	—	1.4	—	:1
Stop Band	Rejection Loss	F3-F4	1090-1400	20	—	—	dB
		F4-F5	1400-2200	40	—	—	dB
	VSWR	F3-F5	1090-2200	—	18	—	:1

Typical Frequency Response



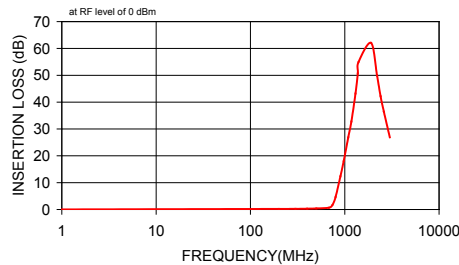
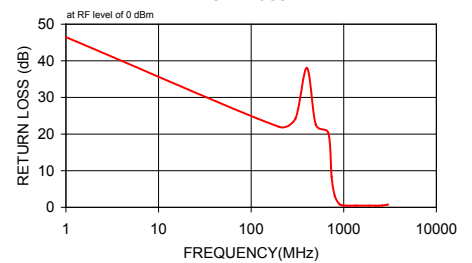
Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
	$\bar{x}$	σ	
1.00	0.02	0.00	46.48
200.00	0.20	0.00	21.99
300.00	0.25	0.01	24.18
400.00	0.30	0.01	38.05
500.00	0.40	0.01	22.55
680.00	0.66	0.03	20.33
740.00	1.67	0.16	8.29
800.00	4.66	0.38	3.15
900.00	12.39	0.49	0.85
975.00	18.08	0.49	0.54
1090.00	26.85	0.49	0.43
1175.00	32.75	0.51	0.42
1300.00	43.21	0.64	0.44
1375.00	50.68	0.96	0.42
1400.00	54.95	1.25	0.45
1900.00	62.05	0.74	0.44
2200.00	49.91	0.38	0.44
2400.00	42.22	0.25	0.44
2600.00	36.40	0.27	0.49
3000.00	26.92	0.25	0.74

SALF-680
INSERTION LOSS

SALF-680
RETURN LOSS

CASE STYLE: YY101

+RoHS Compliant

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

