

Surface Mount Low Pass Filter

50Ω DC to 490 MHz

Maximum Ratings

Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

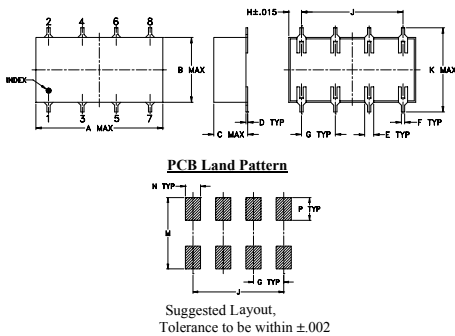
Power Input 0.5W max.

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

Pin Connections

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

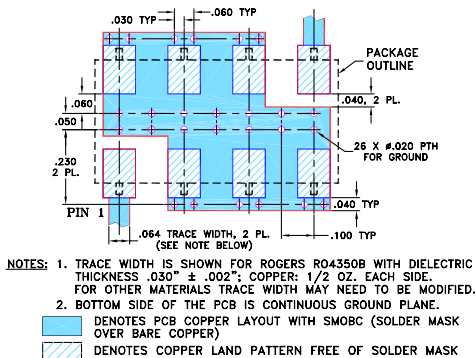
Outline Drawing



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

- 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

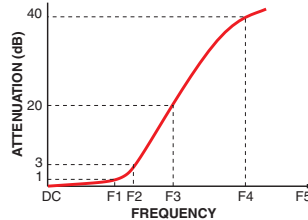
Applications

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

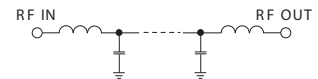
Electrical Specifications

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-490	—	—	1.0 dB
	Freq. Cut-Off	F2	620	—	3.0	dB
	VSWR	DC-F1	DC-490	—	1.3	:1
Stop Band	Rejection Loss	F3-F4	800-900	20	—	dB
		F4-F5	900-1600	35	—	dB
	VSWR	F3-F5	800-1600	—	18	:1

Typical Frequency Response



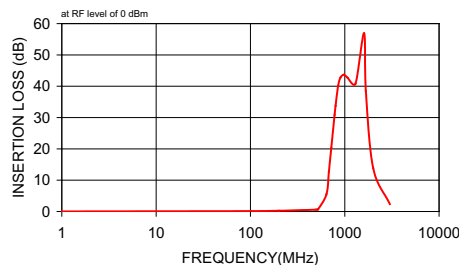
Electrical Schematic



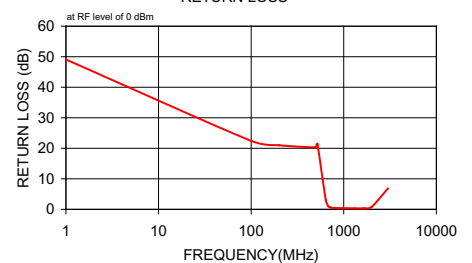
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
	$\bar{x}$	σ
1.00	0.03	0.00
100.00	0.14	0.00
200.00	0.22	0.00
490.00	0.57	0.02
510.00	0.63	0.03
520.00	0.66	0.03
640.00	5.50	0.53
680.00	12.81	0.71
720.00	20.36	0.74
780.00	30.90	0.71
800.00	33.75	0.68
850.00	40.14	0.53
900.00	42.75	0.36
980.00	43.66	0.39
1070.00	42.74	0.45
1300.00	40.82	0.51
1600.00	56.89	3.08
1675.00	38.48	0.85
2000.00	13.88	0.55
3000.00	2.38	0.20

SALF-490 INSERTION LOSS



SALF-490 RETURN LOSS



CASE STYLE: YY101

+RoHS Compliant

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



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