

Bandpass Filter

SXBP-35N+

50Ω 30 to 40 MHz

Maximum Ratings

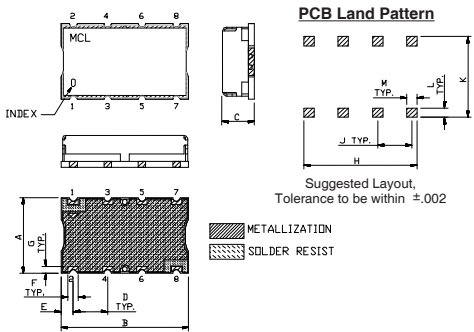
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

Pin Connections

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

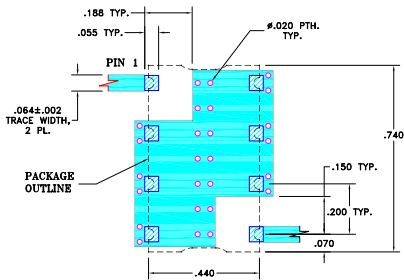
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	wt.
.44	.74	.27	.200	.07	.060	11.18	18.80	6.86	5.08	1.78	1.52	
						.040	.660	.200	.470	.055	.060	grams
						1.02	16.76	5.08	11.94	1.40	1.52	3.0

Demo Board MCL P/N: TB-368 Suggested PCB Layout (PL-230)



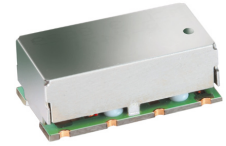
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025"±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- excellent rejection
- good VSWR, 1.1:1 typ @ passband

Applications

- FM radio rejection
- receivers / transmitters
- professional mobile radio / public Access mobile radio (PMR/ PAMR)



CASE STYLE: HF1139

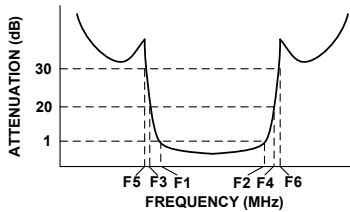
+RoHS Compliant

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

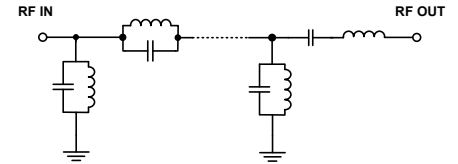
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 1dB) F1 - F2	STOPBANDS (MHz)				VSWR (:1)	
		Loss > 20dB		Loss > 30dB		Passband Max.	Stopband Typ.
		F3	F4	F5	F6		
35	30 - 40	21	60	19	65 - 1350	1.5	18

Typical Frequency Response

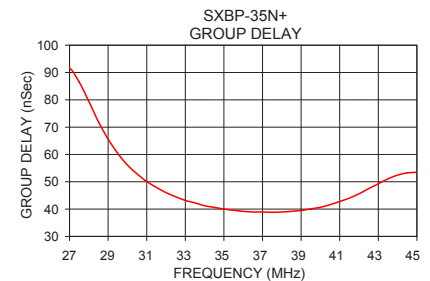
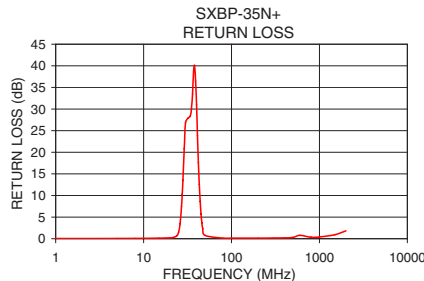
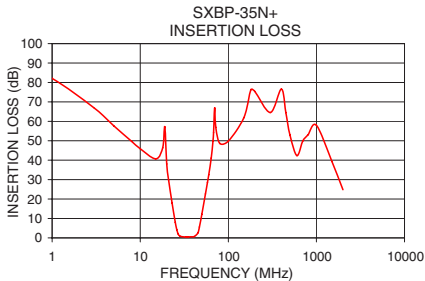


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	\bar{x}	σ			
1.0	82.11	0.27	0.04	27.0	91.70
19.0	57.19	1.77	0.17	28.0	79.45
21.0	29.79	0.24	0.23	29.0	65.64
23.0	17.86	0.30	0.42	30.0	56.11
25.0	7.98	0.43	1.52	31.0	50.11
26.0	4.23	0.44	3.50	32.0	46.02
27.0	1.98	0.32	7.49	33.0	43.18
30.0	0.60	0.05	26.89	34.0	41.24
35.0	0.52	0.02	30.12	35.0	40.01
40.0	0.64	0.04	31.03	36.0	39.17
44.0	1.59	0.27	8.65	37.0	38.94
46.0	3.83	0.56	3.67	38.0	38.92
48.0	7.66	0.70	1.54	39.0	39.48
51.0	14.31	0.67	0.57	40.0	40.67
60.0	32.50	0.62	0.19	41.0	42.78
65.0	43.63	0.84	0.16	42.0	45.62
500.0	53.02	0.17	0.30	43.0	49.26
1350.0	55.12	6.44	0.63	45.0	53.47



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-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

