

Plug-In Bandpass Filter

PIF-50+

50Ω Constant Impedance 41 to 58 MHz

Maximum Ratings

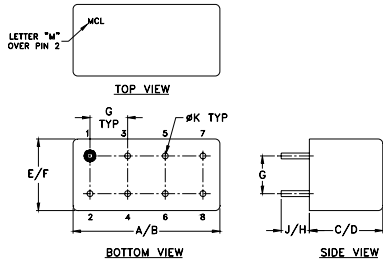
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

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

Pin Connections

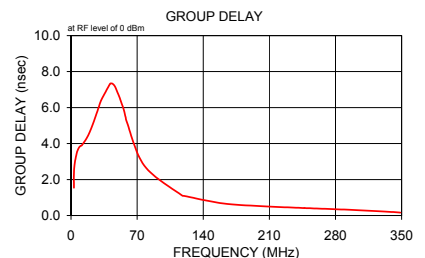
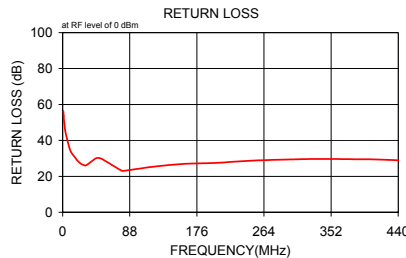
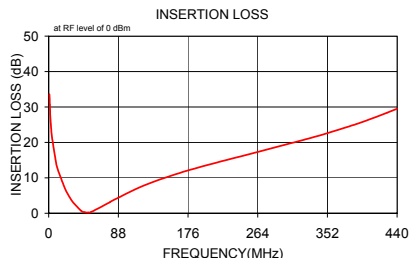
INPUT	1
OUTPUT	6
GROUND	2,3,4,5,7,8
CASE GROUND	2,5,7,8

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K		wt
.200	.20	.14	.031		grams
5.08	5.08	3.56	0.79		5.2



Notes

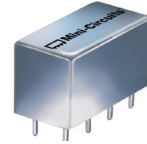
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-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

- low VSWR in pass & stopbands, 1.3:1 typ.
- shielded welded case, hermetically sealed
- custom designs available

Applications

- harmonic rejection
- lab use
- military/hi-rel applications



CASE STYLE: A01

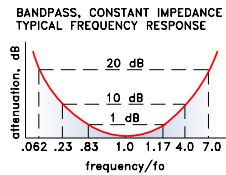
+RoHS Compliant

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

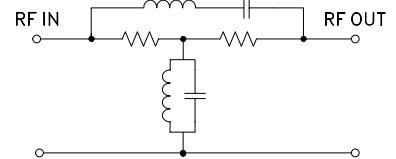
Bandpass Filter Electrical Specifications

MODEL NO.	CENTER FREQ. (MHz)	PASSBAND (MHz) (loss < 1 dB)	STOPBANDS		VSWR, 1.3:1 Typ. TOTAL BAND (MHz)
			(loss > 10 dB) at MHz	(loss > 20 dB) at MHz	
PIF-50+	50	41-58	11.5 & 200	3.1 & 350	DC-440

typical frequency response



electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	\bar{x}	σ			
1.0	33.62	0.2	56.3	3.1	1.540
1.4	30.60	0.2	53.5	3.2	2.572
1.8	28.39	0.2	51.1	5.9	3.434
2.3	26.60	0.2	49.3	8.7	3.800
2.7	25.16	0.2	47.6	11.4	3.893
3.1	23.91	0.2	46.4	11.6	3.910
4.0	21.72	0.3	43.9	18.2	4.448
9.0	14.63	0.2	35.6	24.4	5.257
11.5	12.44	0.2	33.2	31.1	6.290
20.0	7.25	0.2	28.5	32.2	6.428
23.7	5.61	0.2	27.1	41.0	7.293
27.3	4.18	0.2	26.3	41.7	7.342
31.0	2.95	0.2	26.2	43.9	7.325
41.0	0.70	0.1	29.3	46.2	7.197
45.5	0.28	0.1	30.2	48.7	6.905
50.0	0.21	0.1	30.0	51.3	6.571
53.0	0.34	0.1	29.3	53.1	6.309
77.0	3.12	0.1	23.2	55.9	5.874
80.0	3.52	0.1	23.1	57.9	5.441
120.0	7.84	0.1	25.4	58.9	5.242
160.0	10.99	0.2	27.0	77.6	2.769
200.0	13.61	0.2	27.5	117.5	1.114
250.0	16.51	0.2	28.8	119.5	1.093
316.7	20.38	0.4	29.6	160.3	0.679
350.0	22.46	0.4	29.7	200.7	0.525
390.0	25.29	0.6	29.5	246.9	0.414
402.5	26.25	0.7	29.5	251.2	0.408
415.0	27.29	0.8	29.3	298.5	0.306
427.5	28.35	0.9	29.2	342.8	0.185
440.0	29.49	1.0	28.9	348.7	0.163