

# Plug-In Bandpass Filter

## PIF-40+

### 50Ω Constant Impedance 35 to 49 MHz

#### Maximum Ratings

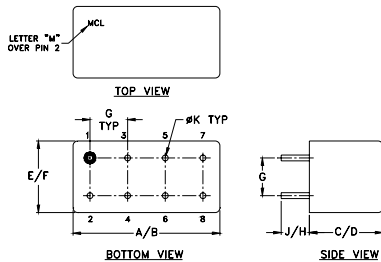
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

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

#### Pin Connections

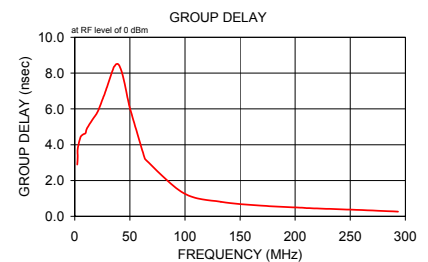
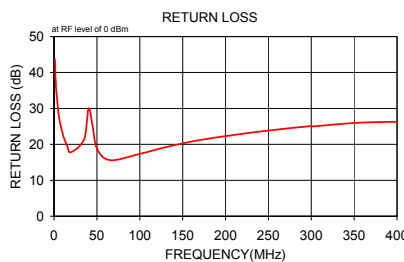
INPUT	1
OUTPUT	6
GROUND	2,3,4,5,7,8
CASE GROUND	2,5,7,8

#### 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

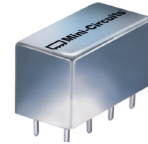
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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#### Features

- 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

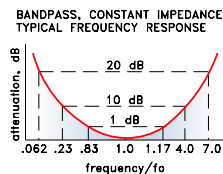
#### +RoHS Compliant

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

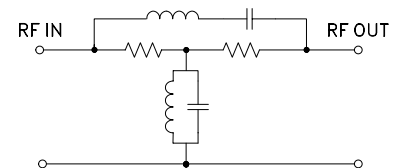
#### Bandpass Filter Electrical Specifications

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-40+	42	35-49	10 & 168	2.6 & 300	DC-400

#### typical frequency response



#### electrical schematic



#### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	$\sigma$			
1.0	31.97	0.1	43.7	2.3	2.895
1.3	29.62	0.1	41.1	2.6	3.319
1.6	27.72	0.1	39.1	2.7	3.755
2.0	26.20	0.1	37.6	5.2	4.422
2.3	24.90	0.1	36.1	7.5	4.574
2.6	23.77	0.1	34.9	9.9	4.649
3.0	22.54	0.1	33.7	11.0	4.904
5.3	17.56	0.1	28.5	16.1	5.402
7.7	14.41	0.1	25.3	20.9	5.852
10.0	12.05	0.1	23.0	26.2	6.700
11.0	11.21	0.1	22.2	27.1	6.840
15.3	8.20	0.1	19.5	35.1	8.288
19.7	5.92	0.1	17.8	36.3	8.399
35.0	0.86	0.1	21.4	37.6	8.498
40.3	0.23	0.1	30.0	39.6	8.488
44.7	0.31	0.1	25.5	41.7	8.249
50.0	0.88	0.1	18.9	43.2	7.937
65.0	3.17	0.1	15.6	45.4	7.393
99.3	7.37	0.2	17.3	47.0	6.910
133.7	10.43	0.2	19.4	48.7	6.395
168.0	12.93	0.3	21.1	50.4	5.956
212.0	15.76	0.3	22.7	63.1	3.323
256.0	18.46	0.4	24.0	64.2	3.167
300.0	21.25	0.5	25.1	98.9	1.296
301.0	21.32	0.5	25.0	132.6	0.812
320.8	22.67	0.6	25.4	168.9	0.599
340.60	24.13	0.7	25.8	207.7	0.474
360.40	25.67	0.9	26.1	211.3	0.462
380.20	27.40	1.1	26.2	255.6	0.363
400.00	29.24	1.4	26.3	293.4	0.264