

# High Pass Filter

**NEW!**  
**HFCN-3800**

50Ω, 4250 to 10000 MHz



### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	7W*

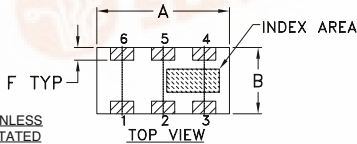
\*derate linearly to 3W at 100°C ambient

### Pin Connections

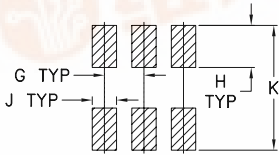
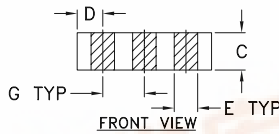
RF IN	1**
RF OUT	3**
GROUND	2,4,5,6

\*\*RF IN & RF OUT can be interchanged

### Outline Drawing



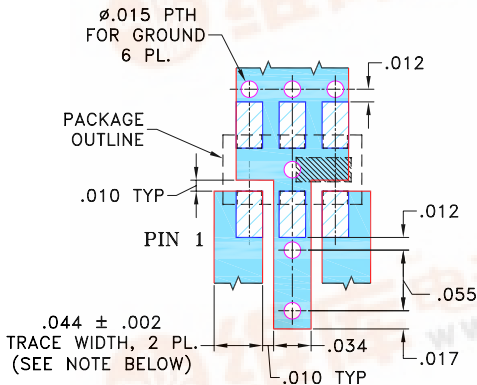
TOLERANCE UNLESS OTHERWISE STATED  
2 PLACES DECIMAL: ±.01  
3 PLACES DECIMAL: ±.005



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	wt.
.126	.063	.035	.024	.022	.012	.039	.042	.024	.123	grams
3.20	1.60	0.89	0.61	0.56	0.30	0.99	1.07	0.61	3.12	.02

Demo Board MCL P/N: TB-285  
Suggested PCB Layout(PL-158)



- TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS: .020 ± .0015; 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

DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

### Features

- Low Cost
- Small size
- 5 sections
- Temperature stable
- Good power handling
- DC block in/out, breakdown voltage, 1kV typ.

### Application

- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers

CASE STYLE: FV1206-1

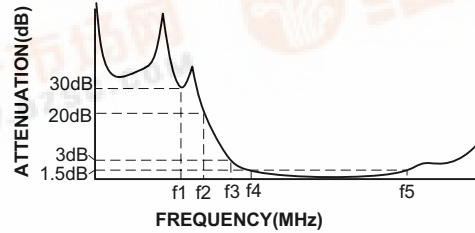
Model	Price	Qty.
HFCN-3800	\$2.49	(10-49)
HFCN-3800D	\$2.99	(10-49)

### High Pass Filter Electrical Specifications<sup>1</sup> (T<sub>AMB</sub> = 25°C)

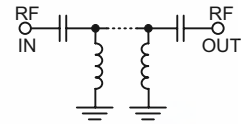
MODEL NO.	STOPBAND (MHz)		f <sub>co</sub> , MHz Nom. (Loss 3dB) Typ. f <sub>3</sub>	PASSBAND (MHz)		VSWR Typ. Stopband Frequency (MHz) 1.5:1	POWER INPUT (W) Max.
	Typ. DC-f <sub>1</sub>	Min. DC-f <sub>2</sub>		Max. f <sub>4</sub> -f <sub>5</sub>	Max.		
HFCN-3800	DC-3100	DC-3200	3800	4500-9000	4250-10000	20:1	3950-10000

1. For Applications requiring DC voltage to be applied to the input or output, use HFCN-3800D (DC Resistance to ground is 100 Mohms min.)

### Typical Frequency Response



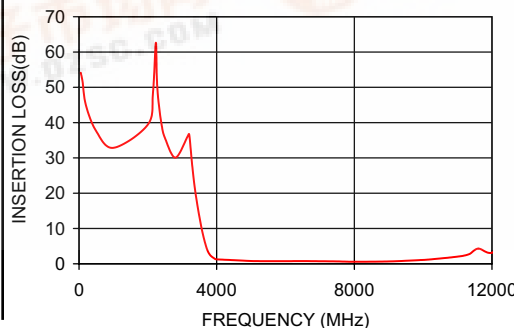
### Schematic



### Typical Performance Data at 25°C

FREQUENCY (MHz)	INSERTION LOSS (dB)	VSWR (:1)
50	54.14	1737.18
500	37.58	1737.18
1000	32.85	248.17
2000	39.46	78.97
2800	30.08	42.38
3280	28.81	23.81
3800	2.59	2.00
3950	1.41	1.16
4500	1.02	1.43
6000	0.76	1.18
8000	0.59	1.05
9900	1.05	1.65
10200	1.25	1.79
11330	2.71	1.96
12000	3.15	1.20

HFCN-3800  
INSERTION LOSS



HFCN-3800  
VSWR

