# Ceramic

# **High Pass Filter**

# **HFCN-880**

Generic photo used for illustration purposes only

CASE STYLE: FV1206

### $50\Omega$

# 950 to 3200 MHz

#### **Maximum Ratings**

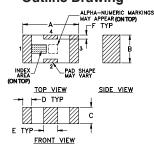
Operating Temperature	-55°C to 100°C		
Storage Temperature	-55°C to 100°C		
RF Power Input*	7W max, at 25°C		

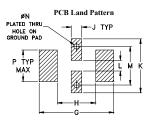
<sup>\*</sup> Passband rating, derate linearly to 3W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded

#### **Pin Connections**

RF IN	1_
RF OUT	3
GROUND	2,4

#### Outline Drawing



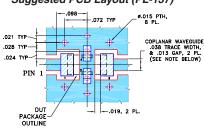


Suggested Layout, Tolerance to be within ±.002

# Outline Dimensions (inch)

	G	F	E	D	С	В	Α
	.169	.009	.032	.020	.037	.063	.126
	4.29	0.23	0.81	0.51	0.94	1.60	3.20
wt	Р	N	M	L	K	J	Н
grams	.071	.012	.087	.024	.122	.024	.087
.020	1.80	0.30	2.21	0.61	3.10	0.61	2.21

#### Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



. COPLANAR WAYEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 0Z. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED. NOTES: 1.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

#### **Features**

- low cost
- small size 7 sections
- temperature stable
- hermetically sealed
- LTCC construction
- excellent power handling, 7W

#### **Applications**

- sub-harmonic rejection
- transmitters/receivers
- lab use

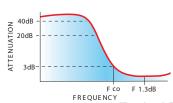
#### Electrical Specifications (1,2) at 25°C

STOP (MI Mi	Hz)	fco, MHz Nom.	PASSBAND (MHz)		VSWR (:1) Typ. Frequency		POWER INPUT (W)	NO. OF SECTIONS
		(loss 3 dB)	(loss < 1.3 dB)	(loss < 2 dB)		(MHz)		
(loss > 40 dB)	(loss > 20 dB)	Тур.	Max.	Тур.	Stopband	1.5:1		
500	640	880	1060-2500	950-3200	20:1	970-2400	7	7

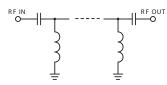
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required. Alternatively, Mini-Circuits' "D" suffix version of this model will provide>100 MOhm isolation to ground.

(2) Measured on Mini-Circuits Characterization Test Board TB-270.

#### typical frequency response

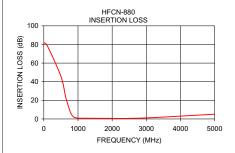


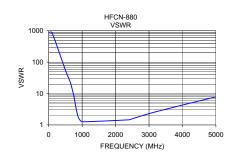
#### electrical schematic



# Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)		
4.00	00.00	000 50		
1.00	82.28	868.59		
100.00	78.78	868.59		
500.00	45.84	56.04		
640.00	23.68	24.14		
750.00	10.22	8.68		
810.00	4.85	3.84		
880.00	1.97	1.83		
950.00	1.17	1.36		
970.00	1.06	1.32		
1060.00	0.83	1.26		
2400.00	0.52	1.46		
2500.00	0.60	1.58		
3200.00	1.42	2.62		
5000.00	5.12	7.87		





- 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