

High Pass Filter

50Ω 6300 to 15000 MHz

HFCN-6010+



CASE STYLE: FV1206-1

Maximum Ratings

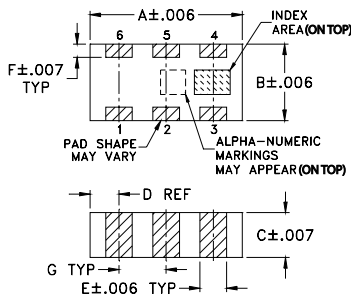
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C

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

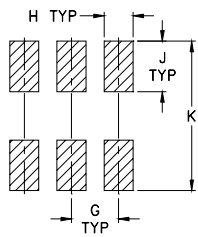
Pin Connections

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

Outline Drawing



PCB Land Pattern

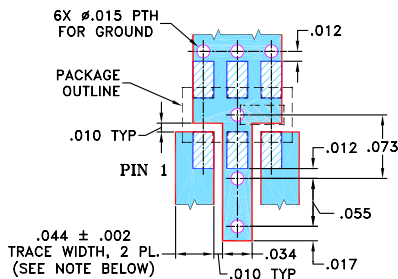


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch)

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28
G	H	J	K	wt	
.039	.024	.042	.123	grams	
0.99	0.61	1.07	3.12	.020	

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



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350 WITH DIELECTRIC THICKNESS: .020 ± .0015; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Notes

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-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 cost
- Small size
- 5 sections
- Temperature stable
- Excellent power handling, 7W
- Hermetically sealed
- LTCC construction
- Protected by US Patent 7,760,485

Applications

- Point-to-point radio
- Sub-harmonic rejection
- Transmitters / receivers

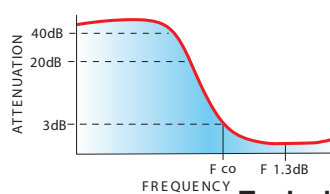
Electrical Specifications^(1,2) at 25°C

STOPBAND (MHz)	f _{co} , MHz Nom.	PASSBAND (MHz)	VSWR Typ.	POWER INPUT (W)	NO. OF SECTIONS
(Loss > 30dB) (Loss > 20dB)	(Loss 3 dB)	(Loss < 3dB) (Loss < 5dB)	Frequency (MHz)	Max.	
Typ. Min.	Typ.	Max. Max.	Stopband 1.5:1		
5190 5200	6010	6350-13000 6300-15000	20:1 6050-8000	7	5

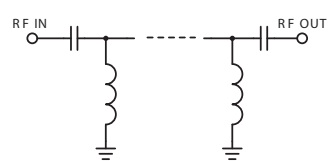
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

(2) Measured on Mini-Circuits Characterization Test Board TB-285.

typical frequency response



electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	69.96	868.59
500	44.13	868.59
1000	38.47	579.06
2000	34.30	193.02
5190	31.50	35.46
5200	31.74	34.63
5500	23.93	23.49
5725	12.23	12.35
5870	6.45	5.89
6010	2.99	2.45
6050	2.43	2.00
6300	1.51	1.41
6350	1.47	1.47
8000	1.34	1.69
10000	1.84	2.44
13000	1.27	1.75
15000	3.23	2.36

