Low Pass Filter

DC (1) to 1325 MHz 50Q

LFCN-1325+



Features

Maximum Ratings

Operating Temperature	-55°C to 100°C			
Storage Temperature	-55°C to 100°C			
RF Power Input*	9W max. at 25°C			

^{*} Passband rating, derate linearly to 4W 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



Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

CASE STYLE: FV1206

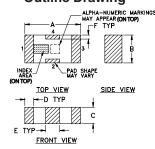
+RoHS Compliant The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

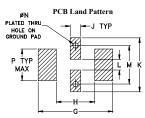


Outline Drawing

Suggested Layout, Tolerance to be within ±.002

- · excellent power handling, 9W
- 5 sections





- small size
- temperature stable
- LTCC construction

Electrical Specifications(1,2) at 25°C

Parameter		F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC-1325	_	_	1.3	dB
Pass Band	Freq. Cut-Off	F2	1560	_	3.0	_	dB
	VSWR	DC-F1	DC-1325	_	1.4	_	:1
Stop Band		F3	2100	20	_	_	dB
	Rejection Loss	F4-F5	2200	_	30	_	dB
		F6	4250	_	20	_	dB
	VSWR	F3-F6	2100-4250	_	20	_	:1

Typical Performance Data at 25°C

Insertion Loss

(dB)

0.12

0.23

0.36

0.56

0.71

1.06 3.52

23.27

28.97

24.14

22.45

21.83

21.11

20.18

- (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-270.

Typical Frequency Response F1 F2 F3 F4 FREQUENCY

Frequency

(MHz)

10.00

174.38

338.75

503.13 667.50

1160 63

1325.00

1518.75 2003.13

2577.77

3055.55

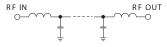
3533.33

3772.22

4011.11

40





VSWR

(:1)

1.03

1.17

1.32

1.38

1 11

1.47

3.91

32.79

51.10

41.37

51.10

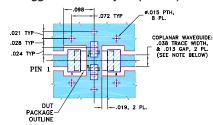
44.55

40.41

Outline Dimensions (inch)

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

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.

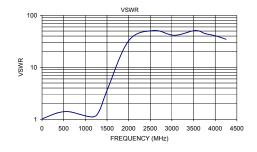
BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

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

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

35 ම 30 10 INSERTION LOSS (0 5 500 1000 1500 2000 2500 3000 3500 4000 4500

INSERTION LOSS



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_isp

FREQUENCY (MHz)