Low Pass Filter

DC⁽¹⁾ to 105 MHz 50Ω

LFCN-105+



CASE STYLE: FV1206

Maximum Ratings

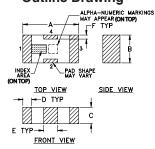
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RE Power Input*	8 5W may at 25°C

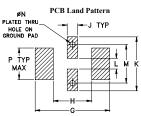
^{*} Passband rating, derate linearly to 3.5W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN	1_
RF OUT	3
GROUND	2,4

Outline Drawing



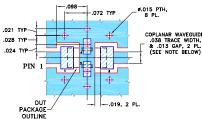


Suggested Layout, Tolerance to be within ±.002

Outline Dimensions (inch)

A .126 3.20	B .063 1.60	C .037 0.94	.020 0.51	E .032 0.81	F .009 0.23	G .169 4.29		
Н	J	K	L	M	Ν	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 WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. 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

Features

- excellent power handling, 8.5W
- small size
- 7 sections
- temperature stable
- LTCC construction
- protected by U.S. Patent 6,943,646

Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- RF suppression for DC lines on PCB
- anti-aliasing for A/D converter

Electrical Specifications(1,2) at 25°C

Available Tape and Reel at no extra cost Devices/Reel Reel Size 20, 50, 100, 200, 500,1000, 3000

+RoHS Compliant The +Suffix identifies RoHS Compliance. See our web site

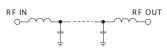
for RoHS Compliance methodologies and qualifications

Elocation opposition at 20 c								
Pa	rameter	F#	Frequency (MHz)	Min.	Тур.	Max.	Unit	
	Insertion Loss	DC-F1	DC-105	_	_	1.0	dB]
Pass Band	Freq. Cut-Off	F2	180	_	3.0	_	dB	
	VSWR	DC-F1	DC-105	_	1.2	_	:1	
		F3	250	20	_	_	dB]
Stop Band	Rejection Loss	F4-F5	265-1650	_	40	_	dB	
		F6	4750	_	20	_	dB	
	VSWR	F3-F6	250-4750	_	20	_	-1	ı

- (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**

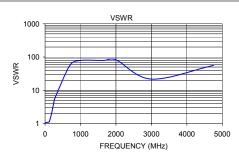
Electrical Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.17	1.04
50.00	0.44	1.08
100.00	0.73	1.08
105.00	0.78	1.09
125.00	0.98	1.16
180.00	3.08	1.92
215.00	10.55	2.88
250.00	31.43	4.46
265.00	45.61	5.31
700.00	46.98	56.04
1000.00	55.37	78.97
1650.00	51.39	78.97
2000.00	43.21	82.73
3000.00	31.32	21.73
4750.00	25.73	56.04





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