

# Ceramic Low Pass Filter

DC to 105 MHz

**NEW!**  
**LFCN-105**



**BLUE CELL™**

CASE STYLE: FV1206

Model	Price	Qty.
LFCN-105	\$3.99	(10-49)
LFCN-105D	\$4.49	(10-49)

## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8.5W max. at 25°C
DC Current Input to Output	0.5A max. at 25°C

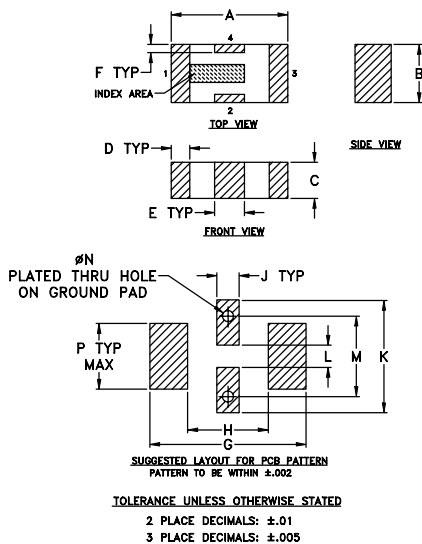
\*Passband rating, derate linearly to 3.5W at 100°C ambient.

## Pin Connections

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

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

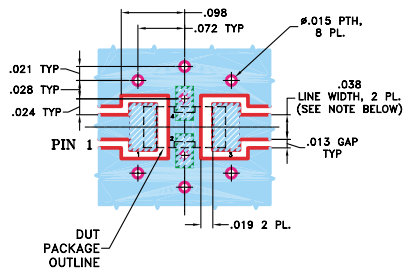
## Outline Drawing



## Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
.126	.063	.037	.020	.032	.009	.169	.087	.024	.122	.024	.087	.012	.071	grams
3.20	1.60	0.94	0.51	0.81	0.23	4.29	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)



**NOTE:**  
1. 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.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

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

## Features

- excellent power handling, 8.5W
- small size
- 7 sections
- temperature stable
- patent pending

## Applications

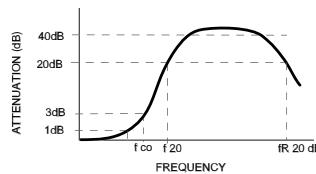
- harmonic rejection
- VHF/UHF transmitters/receivers
- RF suppression for DC lines on PCB
- anti-aliasing for A/D converter

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

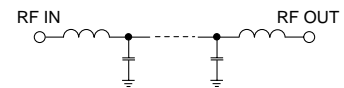
MODEL NO.	PASSBAND (MHz) (loss < 1 dB) Max.	f <sub>co</sub> , MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
			f <sub>20</sub> Min.	40 Typ.	f <sub>r20</sub> Typ.	Stopband Typ.	Passband Typ.	
LFCN-105	DC-105	180	250	265-1650	4750	20	1.2	7

1. For Applications requiring DC voltage to be applied to the Input or output, use LFCN-105D (DC Resistance to ground is 100 Mohms min.)

## typical frequency response



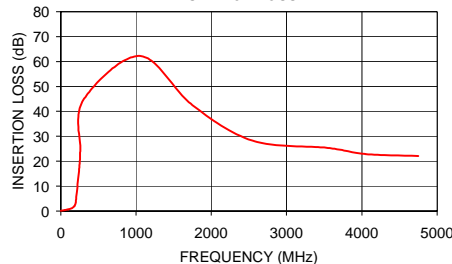
## schematic



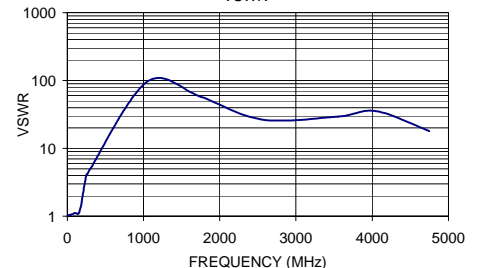
## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.17	1.04
51.00	0.42	1.06
100.00	0.70	1.12
150.00	1.18	1.11
180.00	1.94	1.44
200.00	3.47	1.93
250.00	18.52	4.06
260.00	24.46	4.16
300.00	44.49	4.95
1050.00	62.21	96.51
1750.00	42.50	57.91
2550.00	28.22	26.74
3550.00	25.32	29.46
4050.00	22.87	35.46
4750.00	22.07	18.11

## LFCN-105 INSERTION LOSS



## LFCN-105 VSWR



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