

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

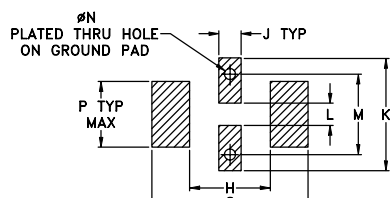
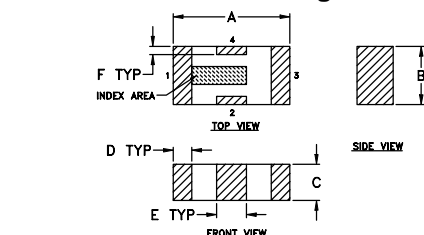
*Passband rating, derate linearly to 3.5W at 100°C ambient.

Pin Connections

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

**RF IN & RF OUT can be interchanged

Outline Drawing



SUGGESTED LAYOUT FOR PCB PATTERN
PATTERN TO BE WITHIN ±.002

TOLERANCE UNLESS OTHERWISE STATED

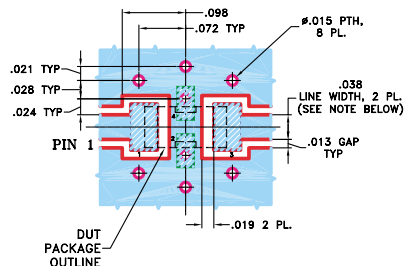
2 PLACE DECIMALS: ±.01
3 PLACE DECIMALS: ±.005

Outline Dimensions (inch)

A	B	C	D	E	F	G
.126	.063	.037	.020	.032	.009	.169
3.20	1.60	0.94	0.51	0.81	0.23	4.29

H	J	K	L	M	N	P	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)



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

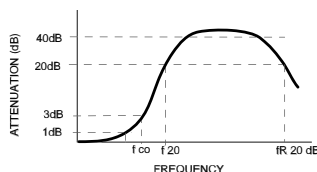
- harmonic rejection
- VHF/UHF transmitters/receivers
- RF suppression for DC lines on PCB
- anti-aliasing for A/D converter

Low Pass Filter Electrical Specifications¹ (T_{AMB}=25°C)

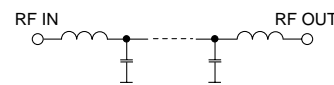
MODEL NO.	PASSBAND (MHz) (loss < 1 dB) Max.	fco, MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
			f20 Min.	40 Typ.	fr 20 Typ.	Stopband Typ.	Passband Typ.	
LFCN-105	DC-105	180	250	265-1650	4750	20	1.2	7

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

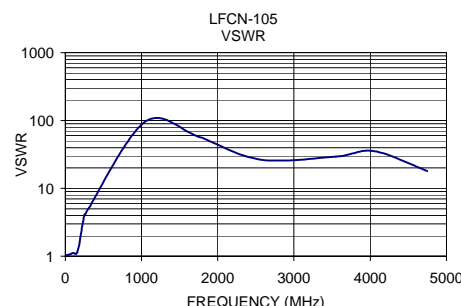
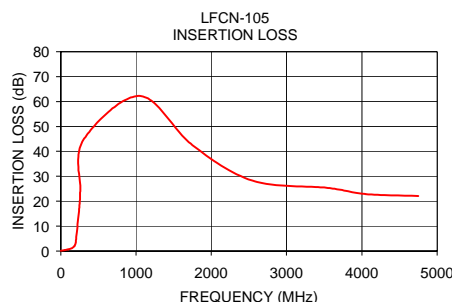


schematic



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



Mini-Circuits®

INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

REV. B
M96263
LFCN-105
ED-11690/3
RVN/AD/CP
050113