# Low Pass Filter

### DC to 850 MHz $50\Omega$

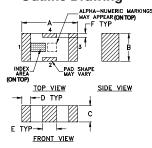
### **Maximum Ratings**

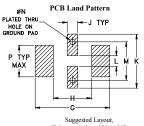
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C
Max. DC Voltage at pins 1&3	25 VDC
DC Current Input to Output	0.5A max_at 25°C

### **Pin Connections**

RF IN	<u> </u>
RF OUT	3
GROUND	2,4

### **Outline Drawing**

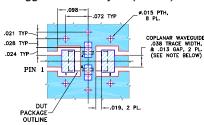




### Outline Dimensions (inch )

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

### Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS ROA350B WITH THICKNESS .020" ± .0015".

COPPER: 1/2 02. EACH SIDE.

FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

2. 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

- excellent power handling, 10W
- small size

**Features** 

- 7 sections
- temperature stable
- LTCC construction
- rejection in stopband, 45-50 dB typ.
- protected by U.S Patent 6,943,646

### **Applications**

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

### Electrical Specifications<sup>1,2</sup> at 25°C

# LFCN-900D+



CASE STYLE: FV1206

+RoHS Compliant

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



Reel Size	De	vice	s/Re	eel		
7"	20,	50,	100,	200,	500,1000,	3000

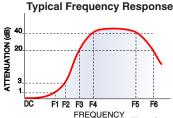
Parameter		F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC-850	_	_	1.3	dB
Pass Band	Freq. Cut-Off	F2	1075	_	3.0	_	dB
	VSWR	DC-F1	DC-850	_	1.2	_	:1
Stop Band		F3	1275	20	_	_	dB
	Rejection Loss	F4-F5	1350-4850	_	30	_	dB
		F6	5100	_	20	_	dB
	VSWR	F3-F6	1275-5100	_	20	_	:1

(1) DC Resistance to ground is 100 Mohms min.

(2) Measured on Mini-Circuits Characterization Test Board TB-270.

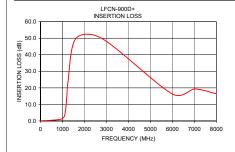
### **Electrical Schematic**

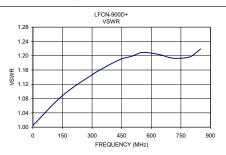




Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1,00	0.04	1.01
150.00	0.19	1.09
500.00	0.41	1.20
850.00	0.86	1.22
950.00	1.22	1.26
1000.00	1.52	1.22
1075.00	2.54	1.18
1100.00	3.44	1.50
1150.00	7.61	2.74
1200.00	15.27	4.03
1250.00	23.41	5.02
1600.00	49.71	19.32
2800.00	49.80	30.49
6000.00	16.27	19.98
7000.00	19.30	17.05
8000.00	16.47	33.42





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-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.jsp

<sup>\*</sup> Derate linearly to 3.5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

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