Low Pass Filter

LFCN-900D-1+

CASE STYLE: FV1206

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site

for RoHS Compliance methodologies and qualifications

DC to 850 MHz 50Q

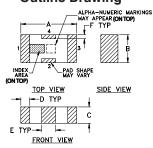
Maximum Ratings

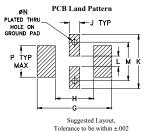
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C
Max. DC Voltage at pins 1&3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

Pin Connections

RF IN	1_
RF OUT	3
GROUND	2,4

Outline Drawing

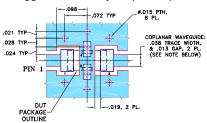




Outline Dimensions (inch)

	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)



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.

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

Features

- excellent power handling, 10W
- small size
- 7 sections
- temperature stable
- LTCC construction
- rejection in stopband, 45-50 dB typ.
- protected by U.S Patent 6,943,646

Applications

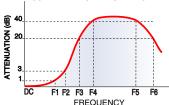
- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

Electrical Specifications at 25°C

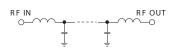
Parameter		F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC-850	_	_	1.3	dB
Pass Band	Freq. Cut-Off	F2	1075	_	3.0	_	dB
	VSWR	DC-F1	DC-850	_	1.2	_	:1
Stop Band		F3	1275	20	_	_	dB
	Rejection Loss	F4-F5	1350-4850	_	30	_	dB
		F6	5100	_	20	_	dB
	VSWR	F3-F6	1275-5100	_	20	_	:1

1. DC Resistance to ground is 100 Mohms min.

Typical Frequency Response

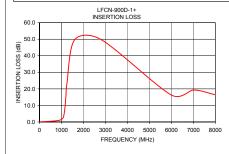


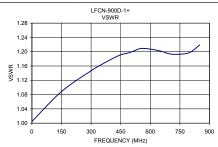
Electrical Schematic



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





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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

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