

Ceramic Low Pass Filter

LFCN-180+ LFCN-180

50Ω DC to 180 MHz

Maximum Ratings

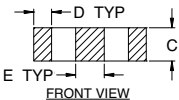
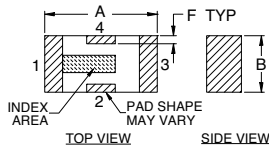
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W at 25°C
DC Current Input to Output	0.5A max. at 25°C

*Passband rating, derate linearly to 3 W at 100°C ambient

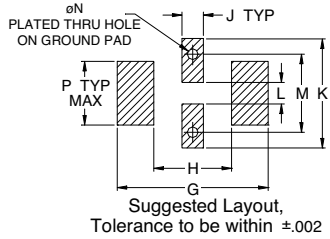
Pin Connections

RF IN	1
RF OUT	3
GROUND	2, 4

Outline Drawing



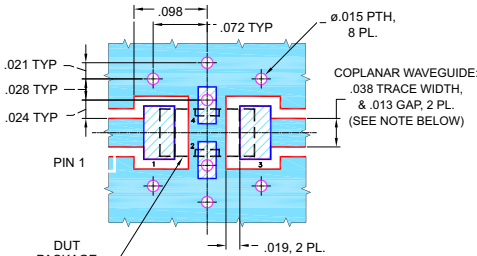
PCB Land Pattern



Outline Dimensions (inch/mm)

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)



NOTES:
1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS R04350B 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, 8W
- small size
- 7 sections
- temperature stable
- protected by US Patent 6,943,646

Applications

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



CASE STYLE: FV1206

Model	Price	Qty.
LFCN-180+	\$2.99	(10-49)
LFCN-180	\$2.99	(10-49)

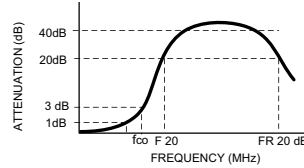
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

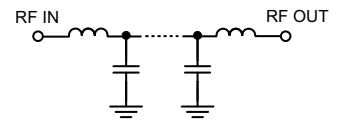
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz) (loss < 1 dB) Max.	f _{co} , MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20 Min.	40 Typ.	FR 20 Typ.	Stopband Typ.	Passband Typ.	
DC - 180	270	370	525 - 2350	6400	17	1.2	7

typical frequency response



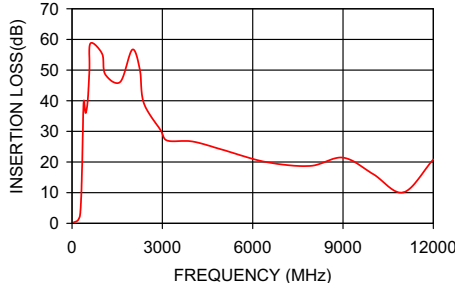
schematic



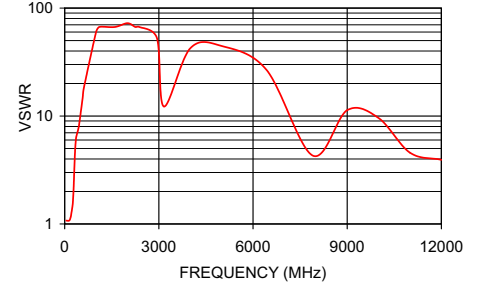
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
40	0.29	1.08
100	0.47	1.08
180	0.85	1.14
235	1.55	1.39
270	3.15	1.82
300	7.47	2.89
325	14.93	4.47
350	25.55	5.79
370	35.04	6.37
525	40.41	11.85
950	64.01	54.29
1700	47.93	69.49
2350	42.01	64.35
4500	25.94	28.49
6400	20.10	27.16
8500	33.14	8.12
12000	20.84	3.93

LFCN-180 INSERTION LOSS



LFCN-180 VSWR



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS

REV. B
M121640
EDR-7071/1
EDR-8231
LFCN-180
RAV
090222
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