

# Ceramic Low Pass Filter

50Ω DC to 4000 MHz

## LFTC-4000+



### Maximum Ratings

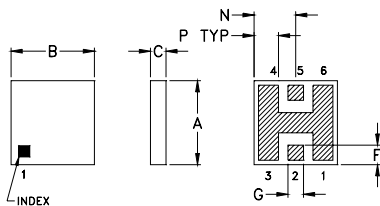
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 125°C

Permanent damage may occur if any of these limits are exceeded.

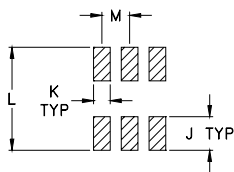
### Pin Connections

RF IN	2
RF OUT	5
GROUND	1,3,4,6

### Outline Drawing



### PCB Land Pattern

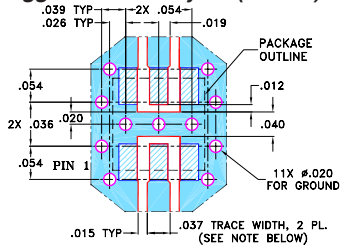


Suggested Layout,  
Tolerance to be within ±0.02

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.150	.150	.034	--	--	.035	.028	--
3.81	3.81	0.86	--	--	0.89	0.71	--
J	K	L	M	N	P	wt	
.060	.030	.184	.050	.075	.044	grams	
1.52	0.76	4.67	1.27	1.91	1.12	0.15	

### Demo Board MCL P/N: TB-233 Suggested PCB Layout (PL-112)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; 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 WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### 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](http://www.minicircuits.com/MCLStore/terms.jsp)

### Features

- miniature size, 0.15"X0.15"X0.028"
- low profile, 0.028" height
- excellent power handling, 10W
- hermetically sealed

### Applications

- harmonic rejection
- internal rejection
- receivers & transmitters

CASE STYLE: FR933  
PRICE: \$3.75 ea. QTY. (20)

### +RoHS Compliant

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

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000
13"	2000, 4000

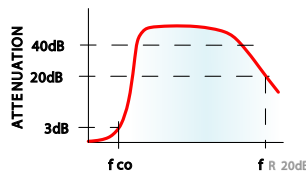
### Electrical Specifications<sup>1</sup> (T<sub>AMB</sub> = 25°C)

PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOP BAND (MHz)	fr20 dB	VSWR (:1) Passband	POWER INPUT* (W)	MARKING	NO. OF SECTIONS
(loss < 1 dB)	(loss 3 dB)	( > 20 dB)	Typ.	Typ.			
DC-4000	5325	7250	9500	1.2	10	LF10	7

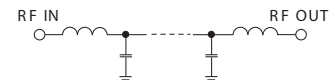
\* Derate linearly to 4W at 100°C ambient.

1. Measured on Mini-Circuits Characterization Test Board TB-233.

### typical frequency response



### electrical schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	0.06	1.04
2000.00	0.39	1.13
3000.00	0.57	1.19
4000.00	0.79	1.11
5000.00	1.44	1.71
5325.00	2.83	3.18
6000.00	9.41	16.39
7250.00	24.10	32.71
8000.00	31.32	23.73
9500.00	20.89	18.69

