

# Ceramic Low Pass Filter

50Ω DC to 2000 MHz

## LFTC-2000+



Generic photo used for illustration purposes only

CASE STYLE: FR933

**+RoHS Compliant**

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

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000
13"	2000, 3000, 4000

### Maximum Ratings

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

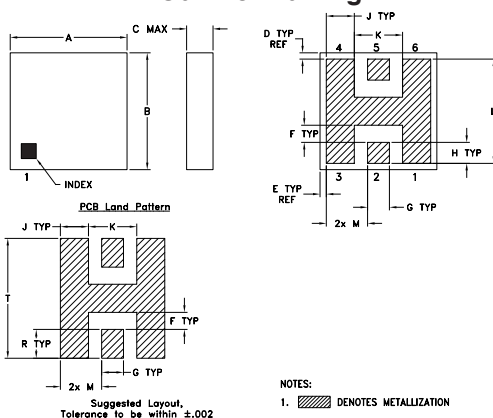
Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

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

### Product Marking: LF8

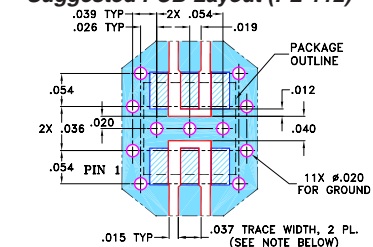
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.150	.150	.034	.008	.008	.022	.028	.027
3.81	3.81	0.864	0.203	0.203	0.559	0.711	0.686
J	K	L	M	R	T	wt	
.036	.062	.134	.053	.037	.154	grams	
0.914	1.575	3.404	1.346	0.940	3.912	0.15	

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



- NOTES:
- 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.
  - 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

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

### Features

- miniature size, 0.15"X0.15"X0.034"
- low profile, 0.034" height
- excellent power handling, 10W
- hermetically sealed

### Applications

- harmonic rejection
- internal rejection
- receivers & transmitters

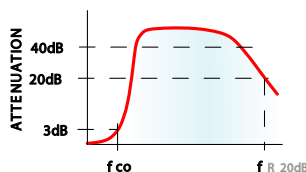
### Electrical Specifications<sup>1</sup> (T<sub>AMB</sub> = 25°C)

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)	(loss > 40 dB)	Typ.			
Typ.	Typ.		Typ.	Typ.			
DC-2000	2430	3450	4500-5500	8000	1.2	10	LF8

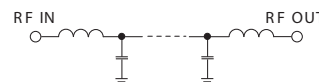
\* Derate linearly to 4W at 100°C ambient.

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)
1.00	0.04	1.01
1000.00	0.39	1.22
1500.00	0.53	1.17
2000.00	0.77	1.13
2430.00	2.98	3.23
3000.00	15.33	23.65
3500.00	25.15	36.03
4000.00	33.38	38.95
4600.00	46.96	43.22
5000.00	64.27	44.76
6000.00	38.59	45.25
7000.00	29.45	31.94
8000.00	21.74	19.74
9000.00	26.73	12.84

