

# Ceramic Low Pass Filter

50Ω DC to 850 MHz

## LFTC-850+



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

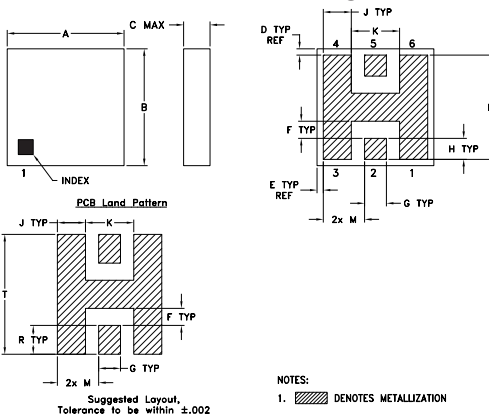
Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

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

### Product Marking: LF3

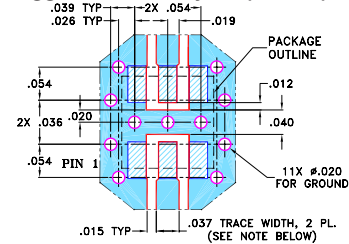
### Outline Drawing



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

### Features

- miniature size, 0.15"X0.15"X0.034"
- low profile, 0.034" height
- excellent power handling, 16W
- hermetically sealed

### Applications

- harmonic rejection
- internal rejection
- receivers & transmitters

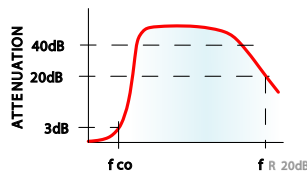
### Electrical Specifications<sup>1</sup> (T<sub>AMB</sub> = 25°C)

PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOP BAND (MHz)		VSWR (:1) Passband	POWER INPUT* (W)	MARKING	NO. OF SECTIONS
(loss < 1 dB)	(loss 3 dB)	( > 20 dB)	(loss > 40 dB)	fr20 dB			
Typ.	Typ.	Typ.	Typ.	Typ.			
DC-850	1078	1500	2000-3500	5500	1.2	16	LF3

\* Derate linearly to 7W 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	0.09	1.02
400.00	0.42	1.18
850.00	0.90	1.39
1078.00	2.87	2.87
1500.00	25.19	38.22
2000.00	45.14	59.79
3500.00	44.71	63.65
5000.00	33.44	68.63
7000.00	23.62	10.54
9000.00	23.95	18.52

