

# Ceramic High Pass Filter

## HFTC-39+

50Ω 4600 to 5500 MHz



### 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

### Features

- miniature size, 0.15"X0.15"
- low profile, 0.028" height
- low pass-band insertion loss, 1.0 dB typ.
- excellent input power handling, 10W
- hermetically sealed

CASE STYLE: FR933  
PRICE: \$3.75 ea. QTY. (10-49)

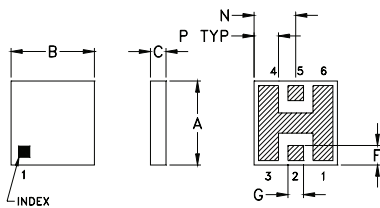
**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

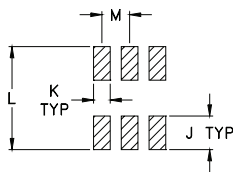
### Applications

- sub-harmonic rejection
- transmitters/receivers
- dc blocking

### Outline Drawing



### PCB Land Pattern

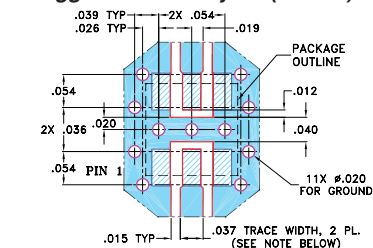


Suggested Layout,  
Tolerance to be within ±0.02

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.150	.150	.028	--	--	.035	.028	--
3.81	3.81	0.71	--	--	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)



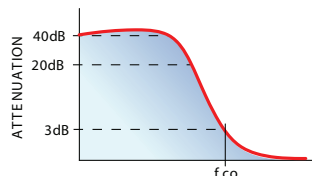
- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.  
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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

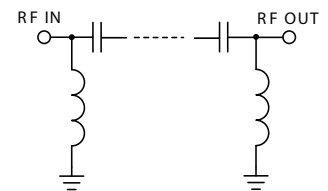
STOP BAND (MHz)	f <sub>co</sub> , MHz Nom.	PASSBAND (MHz)	VSWR (:1)	POWER INPUT* (W)	MARKING	NO. OF SECTIONS
(loss > 40 dB)	(loss 3 dB)	(loss < 1.3 dB)	Stopband Passband			
DC-1900	Typ.	Typ.	Typ.	Typ.		
3050	3900	4600-5500	18 1.4	10	HF12	7

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

### typical frequency response

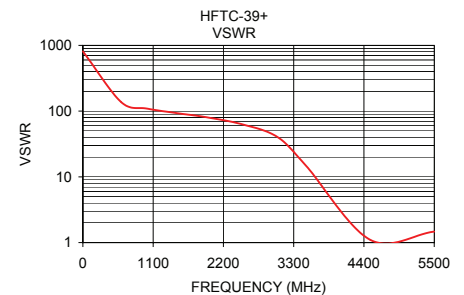
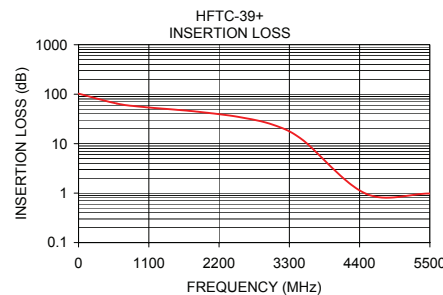


### electrical schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	102.75	810.23
600.00	64.59	136.92
1000.00	55.35	109.48
1500.00	48.85	92.42
1900.00	43.70	81.79
2500.00	34.87	62.84
3050.00	24.00	40.15
3500.00	12.11	14.49
4500.00	0.97	1.10
5500.00	0.98	1.47



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IF/RF MICROWAVE COMPONENTS

REV. J  
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