

Ceramic

# Low Pass Filter

50Ω DC<sup>1</sup> to 7200 MHz

## Features

- Excellent power handling, 12W
- Small size 1206 (3.2 x 1.6 mm)
- Temperature stable
- LTCC construction

## Applications

- Harmonic Rejection
- Transmitters / receivers
- Lab use

# LFCN-722+

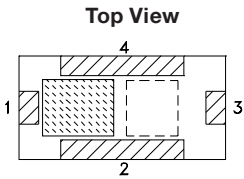
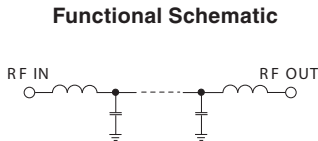
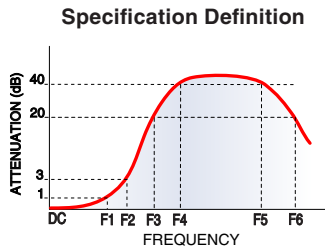


CASE STYLE: FV1206-4

**+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, 3000



### Pad Connections

Input	1
Output	3
Ground	2,4

## Electrical Specifications<sup>1,2</sup> at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC - F1	—	1.9	3.2	dB
	Freq. cut-off	F2	—	3.0	—	dB
	VSWR	DC - F1	—	2.0	—	:1
Stop Band	Rejection Loss	F3	—	20	—	dB
		F4 - F5	25	35	—	dB
		F6	—	30	—	dB

<sup>1</sup> In Application where DC voltage is present at either input or output port, coupling capacitors are required.

<sup>2</sup> Measured on Mini-Circuits Characterization Test Board TB-618+

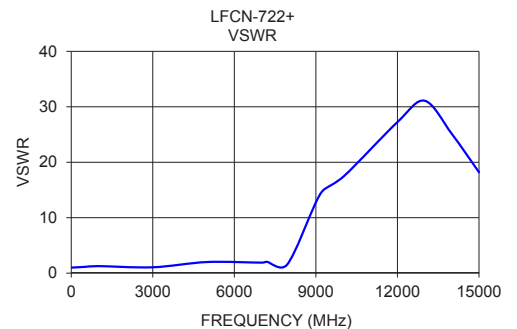
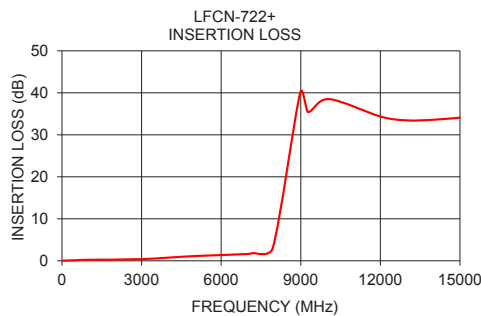
### Maximum Ratings

Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	12W at 25°C

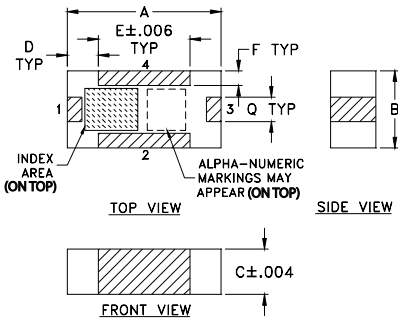
\*Passband rating, derate linearly to 6W at 100°C ambient  
Permanent damage may occur if any of these limits are exceeded.

## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	0.03	1.01
20	0.03	1.01
100	0.04	1.02
500	0.13	1.13
1000	0.24	1.27
3000	0.40	1.06
5000	1.13	2.01
7000	1.61	1.90
7200	1.86	2.04
7940	2.97	1.53
8980	40.03	12.57
9270	35.44	14.95
10060	38.50	17.62
12000	34.37	27.25
13000	33.44	31.09
14000	33.59	25.12
15000	34.09	18.20



## Outline Drawing



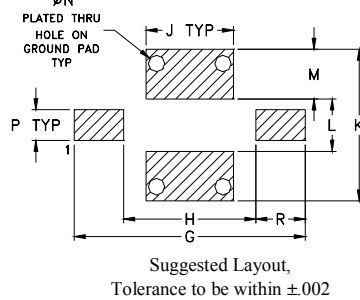
## Pad Connections

Input	1
Output	3
Ground	2,4

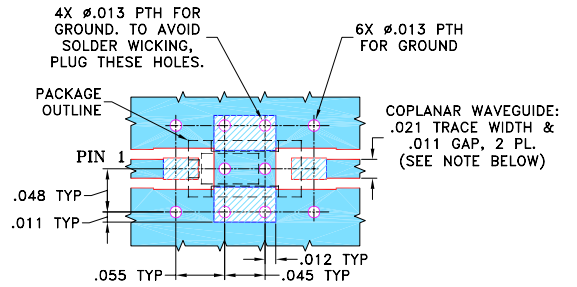
## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.126	.063	.037	.026	.075	.012	.182	.104	.069
3.20	1.60	0.94	0.66	1.91	0.30	4.62	2.64	1.75
K	L	M	N	P	Q	R		wt
.119	.041	.039	.013	.024	.020	.039		grams
3.02	1.04	0.99	0.33	0.61	0.51	0.99		.020

## PCB Land Pattern



## Demo Board MCL P/N: TB-618+ Suggested PCB Layout (PL-363)



**NOTE:** 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .010" ± .001". 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

## Additional 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)