

Ceramic Low Pass Filter

50Ω DC to 2750 MHz

LFCN-2750D+



CASE STYLE: FV1206

Maximum Ratings

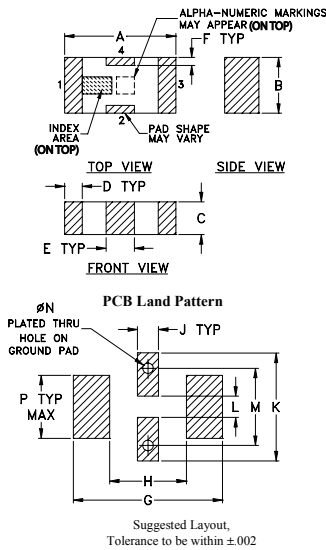
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C
Max. DC Voltage at pins 1&3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

* Derate linearly to 3.5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing

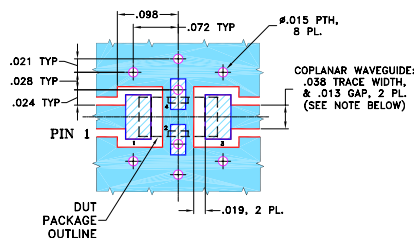


Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.126	.063	.037	.020	.032	.009	.169
3.20	1.60	0.94	0.51	0.81	0.23	4.29

H	J	K	L	M	N	P	wt
.087	.024	.122	.024	.087	.012	.071	grams
2.21	0.61	3.10	0.61	2.21	0.30	1.80	.020

Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



- NOTES:**
1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP 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/MCListStore/terms.jsp

Features

- excellent power handling, 10W
- small size
- 7 sections
- temperature stable
- LTCC construction
- protected by U.S. Patent 6,943,646

Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

+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

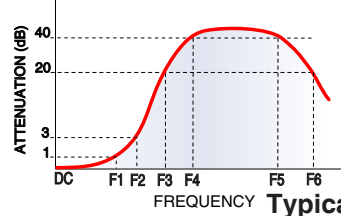
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 3000

Electrical Specifications^{1,2} at 25°C

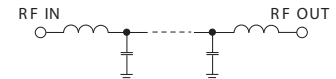
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-2750	—	—	1.2	dB
	Freq. Cut-Off	F2	3300	—	3.0	—	dB
	VSWR	DC-F1	DC-2750	—	1.2	—	:1
Stop Band	Rejection Loss	F3	4000	20	—	—	dB
		F4-F5	4150-6800	—	30	—	dB
	VSWR	F6	8400	—	20	—	dB
		F3-F6	4000-8400	—	20	—	:1

1. DC Resistance to ground is 100 Mohms min.
2. Measured on Mini-Circuits Characterization Test Board TB-270.

Typical Frequency Response



Electrical Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.03	1.10
400.00	0.17	1.04
1900.00	0.53	1.33
2725.00	0.91	1.43
2750.00	0.94	1.45
2800.00	0.99	1.49
3300.00	3.01	3.14
3400.00	4.48	4.50
4000.00	32.38	18.06
4100.00	42.32	16.48
4150.00	43.35	15.58
6000.00	42.80	24.10
6800.00	38.53	20.16
7000.00	36.14	20.99
8400.00	21.90	17.79

