

Ceramic Low Pass Filter

50Ω DC to 5850 MHz

LFCN-5850D+



Maximum Ratings

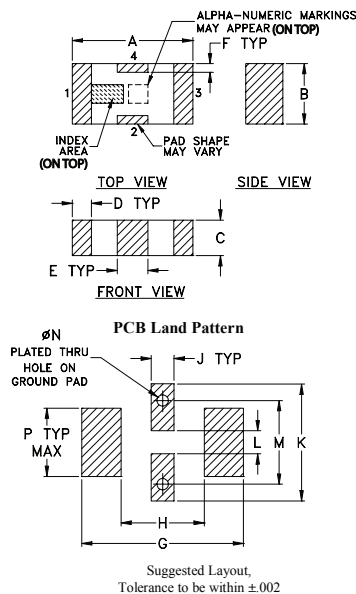
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W max. at 25°C
Max. DC Voltage at pins 1 & 3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

* Passband rating, derate linearly to 3W 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

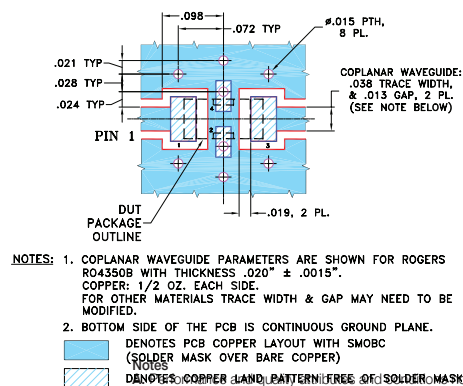


Outline Dimensions (inch)

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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER) (ROHS)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- excellent power handling, 8W
- small size
- 7 sections
- temperature stable
- hermetically sealed
- LTCC construction
- protected by U.S. Patent 6,943,646

Applications

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

CASE STYLE: FV1206
PRICE: \$2.49 ea. QTY (20)

+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

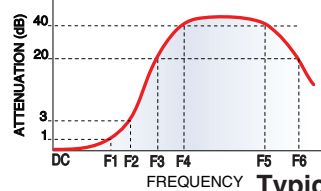
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 3000

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

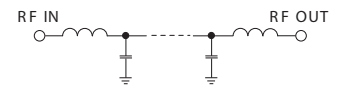
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-5850	—	—	2	dB
	Freq. Cut-Off	F2	6540	—	3.0	—	dB
	VSWR	DC-F1	DC-5850	—	1.3	—	:1
Stop Band	Rejection Loss	F3	7600	20	—	—	dB
		F4-F5	7100-9900	—	30	—	dB
		F5-F6	9900-12500	—	20	—	dB
	VSWR	F3-F6	7600-12500	—	17	—	:1

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

Typical Frequency Response



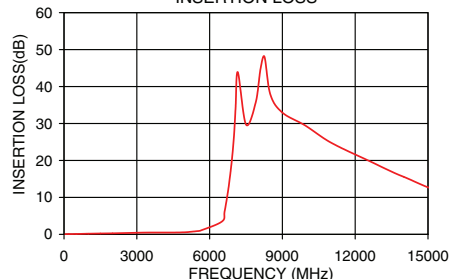
Electrical Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
40	0.03	1.04
500	0.10	1.05
2000	0.28	1.25
4000	0.50	1.39
5100	0.63	1.13
5850	1.21	1.55
6400	2.10	1.35
6540	4.07	2.62
6700	9.14	6.13
6900	19.10	12.09
7050	31.56	15.81
7100	40.23	16.41
7600	30.23	23.18
9900	29.70	16.11
10500	25.82	11.77
12500	20.25	14.38
15000	13.43	14.74

LFCN-5850D+ INSERTION LOSS



LFCN-5850D+ VSWR

