

Ceramic Low Pass Filter

50Ω DC to 5850 MHz

LFCN-5850D+



CASE STYLE: FV1206

Maximum Ratings

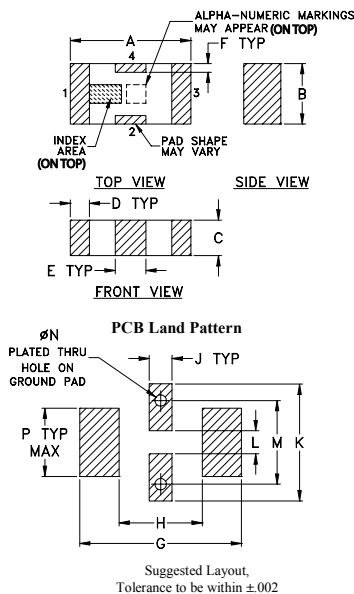
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W max. at 25°C
Max. DC Voltage at pins 1 & 3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

* 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



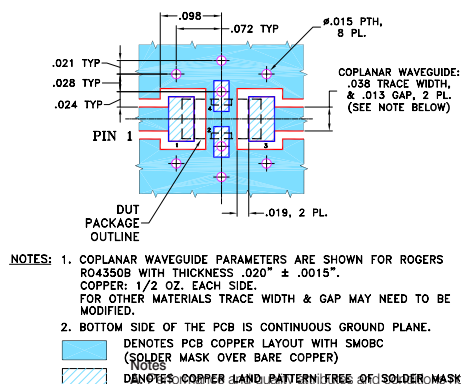
Outline Dimensions (inch)

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)



Features

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

Applications

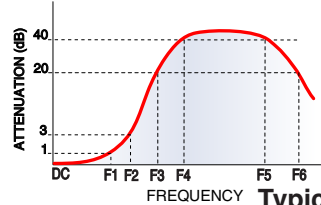
- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

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



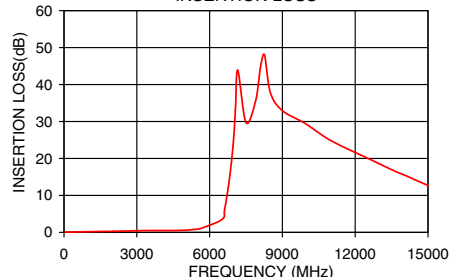
Electrical Schematic



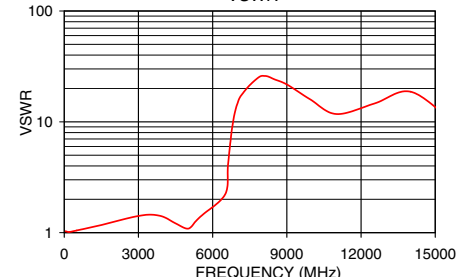
Typical Performance Data at 25°C

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



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