Ceramic

Low Pass Filter

LFCN-5850+

50Ω DC to 5850 MHz

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W at 25°C
DC Current Input to Output	0.5A max. at 25°C

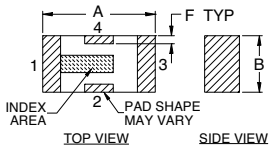
**Passband rating, derate linearly to 3 W at 100°C ambient*

Pin Connections

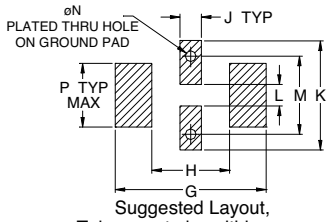
RF IN	1**
RF OUT	3**
GROUND	2, 4

***RF IN & RF OUT can be interchanged*

Outline Drawing



PCB Land Pattern

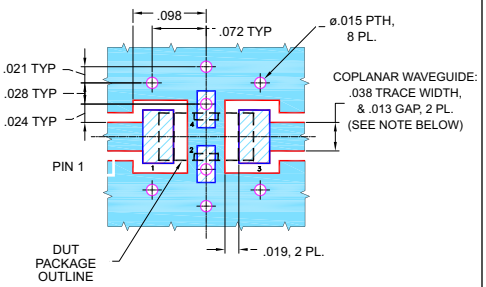


Suggested Layout,
Tolerance to be within ±.002

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

Features

- excellent power handling, 8W
- small size
- 7 sections
- temperature stable
- protected by US Patent 6,943,646

Applications

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

CASE STYLE: FV1206

Model	Price	Qty.
LFCN-5850+	$1.99	(10-49)
LFCN-5850D+	$2.49	(10-49)

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

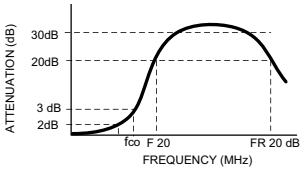
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Low Pass Filter Electrical Specifications (T_{AMB}= 25°C)

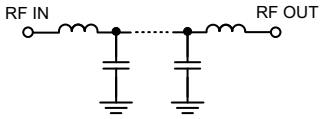
PASSBAND (MHz) (loss < 2 dB) Max.	fco, MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz) (loss, dB) F 20 Min.	30 Typ.	FR 20 Typ.	VSWR (:1) Stopband Typ.	Passband Typ.	NO. OF SECTIONS
DC - 5850	6540	7600	7100 - 9900	12500	17	1.3	7

1. For Applications requiring DC voltage to be applied to the Input or output, use LFCN-5850D+ (DC Resistance to ground is 100 Mohms min.)

typical frequency response



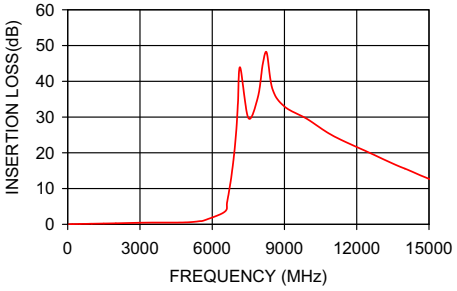
schematic



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-5850+
INSERTION LOSS



LFCN-5850+
VSWR