Low Pass Filter

LFCN-900D-1+

DC to 850 MHz 50Ω

CASE STYLE: FV1206

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site

for RoHS Compliance methodologies and qualifications

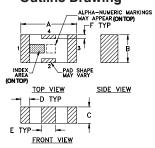
Maximum Ratings

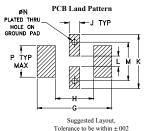
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C
Max. DC Voltage at pins 1&3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

Pin Connections

RF IN	1_
RF OUT	3
GROUND	2,4

Outline Drawing

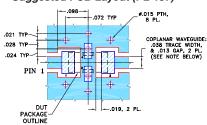




Outline Dimensions (inch)

	G	F	Е	D	С	В	Α
	.169	.009	.032	.020	.037	.063	.126
	4.29	0.23	0.81	0.51	0.94	1.60	3.20
wt	Р	N	M	L	K	J	Н
grams	.071	.012	.087	.024	.122	.024	.087
.020	1.80	0.30	2.21	0.61	3.10	0.61	2.21

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



COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS ROJA550B 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, 10W
- small size
- 7 sections
- temperature stable
- LTCC construction
- rejection in stopband, 45-50 dB typ.
- protected by U.S Patent 6,943,646

Applications

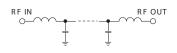
- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

Electrical Specifications at 25°C

	•						
Pa	rameter	F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC-850	_	_	1.3	dB
Pass Band	Freq. Cut-Off	F2	1075	_	3.0	_	dB
	VSWR	DC-F1	DC-850	_	1.2	_	:1
		F3	1275	20		_	dB
Oten Bend	Rejection Loss	F4-F5	1350-4850	_	30	_	dB
Stop Band		F6	5100	_	20	_	dB
	VSWR	F3-F6	1275-5100	_	20	_	:1

1. DC Resistance to ground is 100 Mohms min.

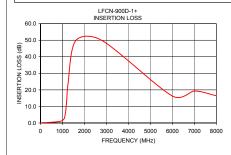
Typical Frequency Response Electrical Schematic

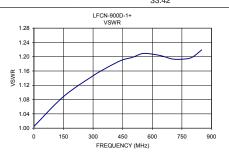


				FRI	EQU	IENCY	т.,	nica	al D
		DC	F1 F2	F3	F4		F5	F6	-
•	•-								
Ę	3.		/						
ATTENUATION (dB)				/				`	
Ĕ				/	7			1	
ž	20.								
8	40_				-				

Frequency Insertion Loss (MHz) (dB)		Typical Performance Data at 25°C

Frequency (MHz)		Insertion Loss (dB)	VSWR (:1)		
	1.00	0.04	1.01		
	150.00	0.19	1.09		
	500.00	0.41	1.20		
	850.00	0.86	1.22		
	950.00	1.22	1.26		
	1000.00	1.52	1.22		
	1075.00	2.54	1.18		
	1100.00	3.44	1.50		
	1150.00	7.61	2.74		
	1200.00	15.27	4.03		
	1250.00	23.41	5.02		
	1600.00	49.71	19.32		
	2800.00	49.80	30.49		
	6000.00	16.27	19.98		
	7000.00	19.30	17.05		
	8000 00	16.47	33.42		





A. Berformance 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.

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

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