Ceramic

Low Pass Filter

LFCN-2400D-1+

50Ω DC to 2400 MHz

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

+ 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.

Maximum Ratings

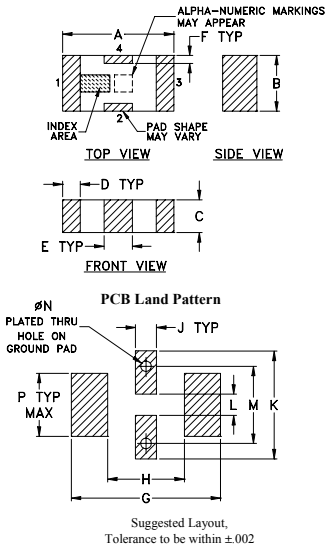
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	9W max. at 25°C
Max. DC Voltage at pins 1&3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

* Derate linearly to 4W 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



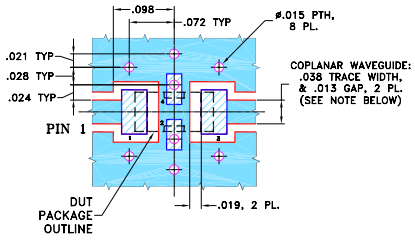
Suggested Layout,
Tolerance to be within ±.002

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, 9W
- small size
- 5 sections
- temperature stable
- LTCC construction

Applications

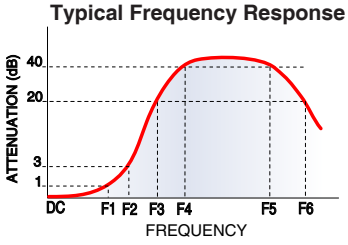
- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

Electrical Specifications[1] at 25°C

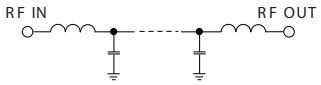
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-2400	—	—	1.5	dB
	Freq. Cut-Off	F2	2800	—	3.0	—	dB
	VSWR	DC-F1	DC-2400	—	1.2	—	:1
Stop Band	Rejection Loss	F3	3600	20	—	—	dB
		F4-F5	3700-4000	—	30	—	dB
		F6	5000	—	20	—	dB
	VSWR	F3-F6	3600-5000	—	20	—	:1

1. DC Resistance to ground is 100 Mohms min.

Typical Frequency Response



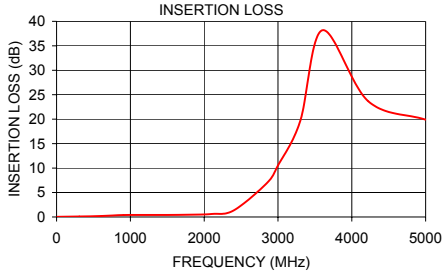
Electrical Schematic



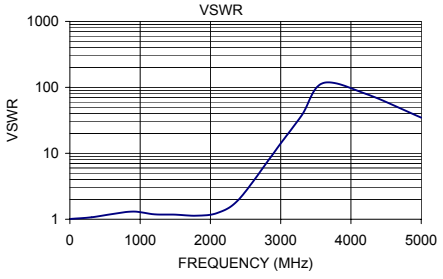
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10.00	0.03	1.01
308.75	0.10	1.07
607.50	0.20	1.20
906.25	0.39	1.31
1205.00	0.41	1.19
1503.75	0.41	1.17
1802.50	0.46	1.13
2101.25	0.62	1.25
2400.00	1.34	1.97
2850.00	6.94	8.51
3000.00	10.53	14.15
3300.00	19.58	37.77
3600.00	38.18	115.81
4222.22	23.66	78.97
5000.00	19.90	34.75

LFCN-2400D-1+
INSERTION LOSS



LFCN-2400D-1+
VSWR



For detailed performance specs & shopping online see web site

Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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