

Features

- excellent power handling, 8W
- small size
- 7 sections
- temperature stable
- hermetically sealed
- LTCC construction

Applications

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

HT-LFCN-8400+



50Ω DC to 8400 MHz

Electrical Schematic



Electrical Specifications(1,2) at 25°C

Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-8400	-	-	1.6	dB
	Freq.Cut-Off	F2	9100	-	3.0	-	dB
	VSWR	DC-F1	DC-8400	-	1.6	-	:1
Stop Band	Rejection Loss VSWR	F3	10300	20	-	-	dB
		F4-F5	10300-15000	-	30	-	dB
		F3-F6	10300-15000	-	17	-	:1

Typical Performance Data

(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

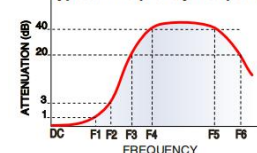
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	0.07	1.01
50	0.03	1.01
100	0.03	1.03
500	0.11	1.17
1000	0.21	1.34
5200	0.38	1.03
7000	0.58	1.15
8000	0.89	1.34
9000	1.89	2.08
10000	18.30	33.66
11000	52.31	48.44
12000	41.95	37.44
13000	43.04	30.42
14000	46.26	28.21
15000	53.19	29.16

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W 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.

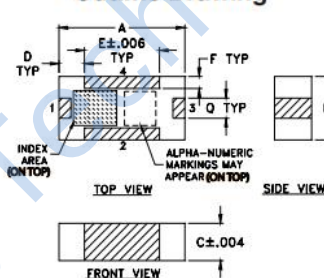
Typical Frequency Response



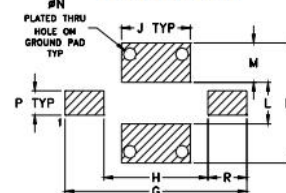
Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing



PCB Land Pattern

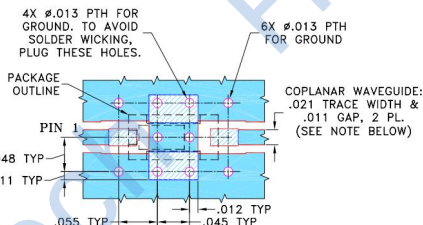
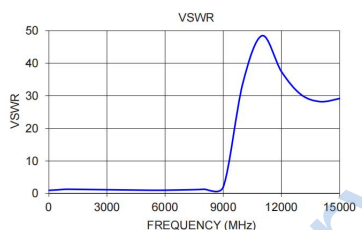
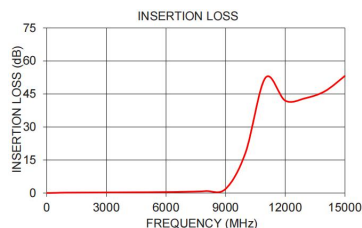


Suggested Layout,
Tolerance to be within ±0.02

Outline Dimensions: Unit (mm)

A	3.20	B	1.60	C	0.94
D	0.66	E	0.91	F	0.30
G	4.62	H	2.64	J	1.75
K	3.02	L	1.04	M	0.99
N	0.33	P	0.61	wt	0.020

Suggested PCB Layout



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010" ± .001". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH 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