

High Pass Filter

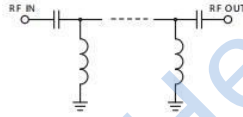
Features

- low cost
- small size
- temperature stable
- excellent power handling, 7W
- hermetically sealed

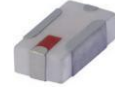
Applications

- sub-harmonic rejection
- transmitters/receivers
- lab use

Functional Schematic

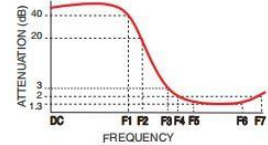


HT-HFCN-9700+



50Ω 9700 to 16980 MHz

Specification Definition



Pad Connections

Input	1
Output	3
Ground	2,4

Maximum Ratings

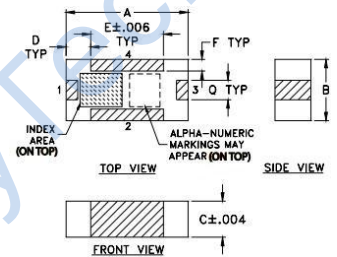
Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C

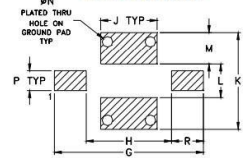
RF Power Input 7W at 25°C

*Passband rating, derate linearly to 3W at 100°C ambient
Permanent damage may occur if any of these limits are exceeded.

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	1.91	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	Q	0.51
R	0.99	wt	0.020g		

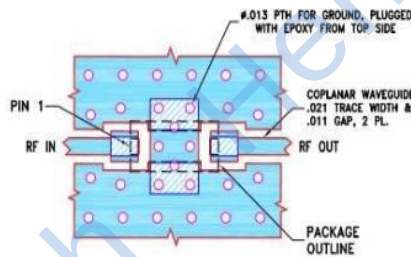
Electrical Specifications at 25°C

Parameter	F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Rejection Loss	DC-F1	25	32	-	dB
	Freq.Cut-Off	F1-F2	18	27	-	dB
	VSWR	F3	-	3.0	-	dB
		DC-F2	-	20	-	:1
Stop Band	Insertion Loss	F4-F7	-	1.0	3.0	dB
		F5-F6	-	0.8	2.0	dB
	VSWR	F4-F7	-	1.8	-	:1

Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	61.91	1737.18
1000	38.60	1500.37
1960	35.58	157.93
3250	40.06	69.49
4170	39.69	32.79
5020	26.83	22.16
6680	22.27	25.72
7570	20.04	21.40
9750	3.03	1.47
10500	1.92	1.46
11580	1.17	1.34
12610	1.73	1.40
13530	1.95	1.52
14550	1.65	2.03
17000	2.01	2.11

Demo Board MCL P/N: T-39 Suggested PCB Layout (PL-137)



NOTES:

1. TRACE WIDTH & GAP PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010±.001. 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.