

## Features

- High power handling, 7W
- Small size
- Temperature stable
- Excellent rejection

## Applications

- Military radio
- Cellular
- GSM
- ISM

## HT-SYBP-92+



50Ω 800 to 1000 MHz

### Electrical Specifications at 25°C

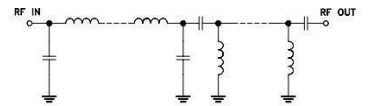
Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	900-	-	MHz
	Insertion Loss	F1-F2	800-1000	-	1.9	2.8	dB
	VSWR	F1-F2	800-1000	-	1.6	2.1	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-530	20-	23	-	dB
	VSWR	DC-F3	DC-530	-	12	-	:1
Stop Band, Upper	Insertion Loss	F4-F5	1550-3000	20-	27	-	dB
	VSWR	F4-F5	1550-3000	-	10	-	:1

### Typical Performance Data

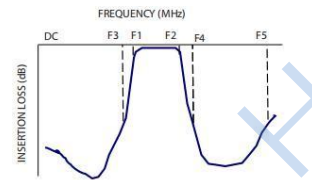
(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	95.93	3014.56
100.00	57.95	179.36
200.00	57.87	46.52
300.00	57.43	24.06
400.00	44.24	16.44
450.00	37.39	14.52
500.00	30.07	13.16
530.00	25.54	12.43
700.00	4.73	3.24
800.00	2.24	1.64
1000.00	2.02	1.52
1550.00	28.43	7.73
1800.00	38.24	20.47
2000.00	36.48	27.60
2500.00	52.46	33.50
3000.00	33.80	29.13

### Functional Schematic



### Typical Frequency Response



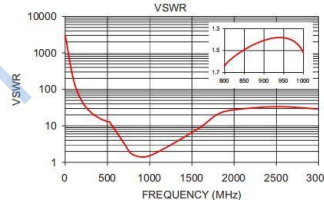
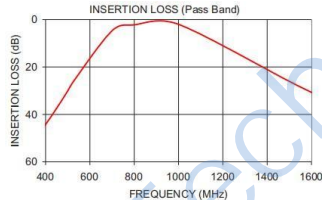
### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C

\*Passband rating, derate linearly to 3W at 85°C ambient  
Permanent damage may occur if any of these limits are exceeded.

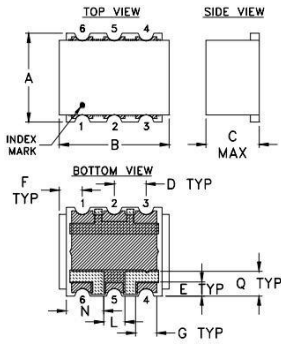
### Pin Connections

RF IN	4
RF OUT	6
GROUND	1,2,3,5

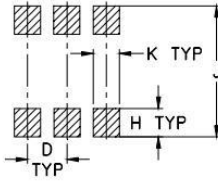


# Bandpass Filter

## Outline Drawing



## PC B L and Patter n

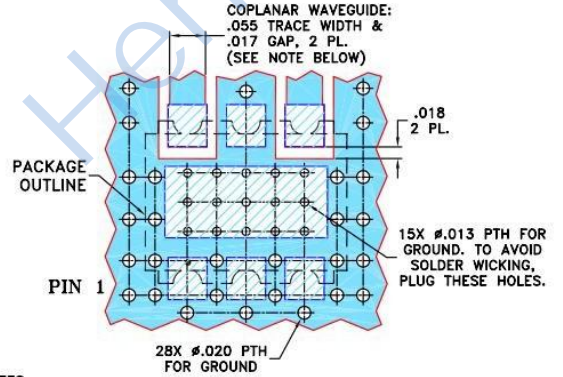


Suggested Layout  
Tolerance to be within  $\pm .002$

METALLIZATION  
 SOLDER RESIST

Outline Dimensions: Unit ( mm )					
A	6.35	B	7.87	C	3.81
D	2.29	E	1.02	F	1.65
G	1.52	H	1.65	J	7.62
K	1.52	L	1.52	N	2.67
Q	1.78	wt			0.50

## Demo Board MCL P/N: TB-517+ Suggested PCB Layout (PL-308)



### NOTES:

- COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS R04350B WITH THICKNESS  $.030 \pm .002$ ; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
- 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