

HT-SYBP-1275+



50Ω 1100 to 1450 MHz

Features

- High power handling
- Small size
- Temperature stable

Applications

- Military radio
- Lab use
- Satellite communication

Electrical Specifications at 25°C

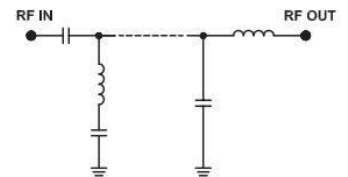
Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	1275	-	MHz
	Insertion Loss	F1-F2	1100-1450	-	1.6	2.5	dB
	VSWR	F1-F2	1100-1450	-	1.9	-	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-500	30	38	-	dB
		F3-F4	500-600	20	28	-	dB
		DC-F4	DC-600	-	28	-	:1
Stop Band, Upper	Insertion Loss	F5-F6	2050-3700	20	30	-	dB
		F6-F7	3700-5000	-	25	-	dB
		F5-F7	2050-5000	-	19	-	:1

Typical Performance Data

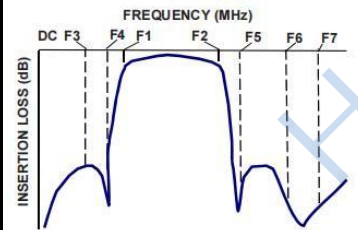
(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	77.26	390.02
100	57.65	568.03
200	55.17	321.04
250	56.75	220.58
500	40.97	50.77
600	29.46	32.29
675	20.58	21.26
880	3.11	2.44
1100	1.32	1.48
1275	1.25	1.46
1450	1.38	1.40
1665	3.02	1.92
1875	20.08	11.90
1950	31.10	15.29
2050	42.24	16.54
2500	37.44	10.56
3000	32.25	27.21
3700	37.64	49.27
4000	47.99	52.12
5000	247.74	46.574

Functional Schematic



Typical Frequency Response



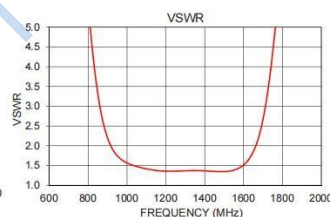
Maximum Ratings

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 3 W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

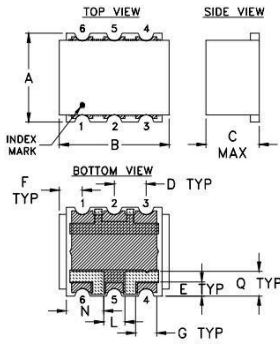
Pin Connections

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

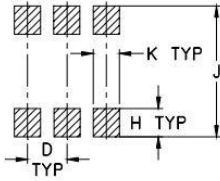


Bandpass Filter



Outline Drawing



PC B L and Patter n



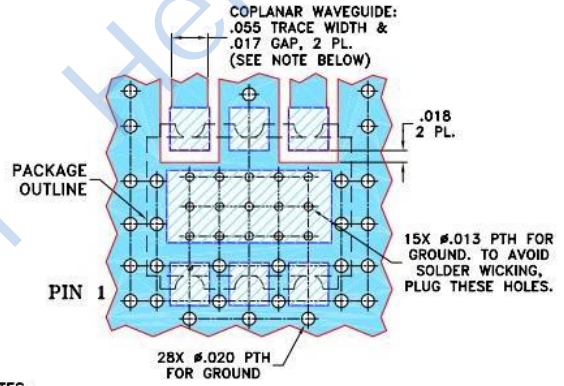
Suggested Layout
Tolerance to be within $\pm .002$

 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-1122+
Suggested PCB Layout (PL-308)

SUGGESTED MOUNTING CONFIGURATION FOR TT1423 CASE STYLE "06FL04" PIN CONNECTION



NOTES:

1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS $.030" \pm .002"$; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND 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