

## Features

- excellent power handling
- Small size
- 7 sections
- temperature stable
- LTCC construction with great moisture resistance, corrosion resistance, and high reliability

## Applications

- sub-harmonic rejection
- transmitters/receivers
- base station of mobile communication and lab use

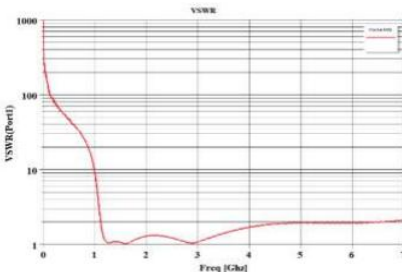
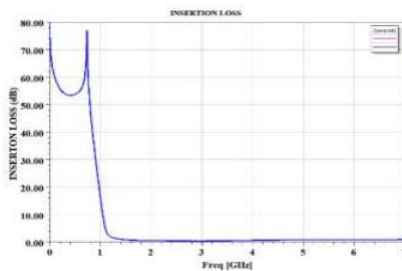
## Electrical Specifications<sup>1</sup> (T<sub>AMB</sub>= 25° C)

| STOP BAND<br>(MHz)  |                     | FCO <sub>1</sub> (MHz)<br>Nom. | PASS BAND<br>(MHz)   |                    | VSWR<br>(:1)     |                             | POWER<br>INPUT<br>(W) | NO. OF<br>SECTION<br>S |
|---------------------|---------------------|--------------------------------|----------------------|--------------------|------------------|-----------------------------|-----------------------|------------------------|
| (Loss>40dB)<br>Min. | (Loss>20dB)<br>Min. | (Loss 3dB)<br>Typ.             | (Loss<1.3dB)<br>Max. | (Loss<2dB)<br>Max. | Stopband<br>Typ. | Frequency<br>(MHz)<br>1.5:1 |                       |                        |
| 750                 | 910                 | 1180                           | 1380-4000            | 1220-4600          | 20:1             | 1300-3200                   | 7                     | 7                      |

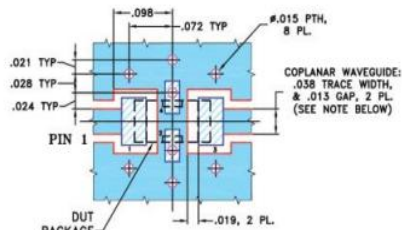
1. In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

## Typical Performance Data at 25° C

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | VSWR<br>(:1) |
|--------------------|------------------------|--------------|
| 1                  | 70.00                  | 1400.41      |
| 100                | 60.16                  | 122.90       |
| 750                | 65.23                  | 29.30        |
| 910                | 29.59                  | 17.05        |
| 1050               | 9.74                   | 5.21         |
| 1130               | 3.41                   | 1.06         |
| 1180               | 2.20                   | 1.22         |
| 1220               | 1.80                   | 1.09         |
| 1300               | 1.38                   | 1.06         |
| 1380               | 1.14                   | 1.09         |
| 3200               | 0.44                   | 1.21         |
| 4000               | 0.70                   | 1.70         |
| 4600               | 0.83                   | 1.90         |
| 7000               | 1.10                   | 2.12         |

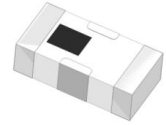


## Suggested PCB Layout



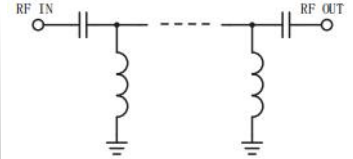
- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015".  
COPPER: 1/2 OZ. EACH SIDE.  
FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## JY-HFCN-1200+



50Ω 1220 to 4600 MHz

## electrical schematic



## Pin Connections

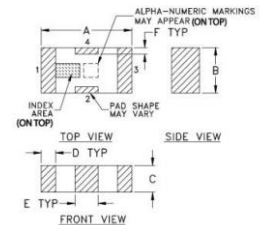
|        |     |
|--------|-----|
| RF IN  | 1   |
| RF OUT | 3   |
| GROUND | 2,4 |

## Maximum Ratings

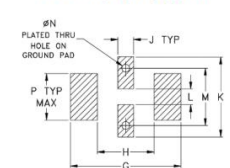
|                       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input        | 7W at 25°C     |

\* 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  | 0.95  |
| D | 0.51 | E | 0.81 | F  | 0.23  |
| G | 4.29 | H | 2.21 | J  | 0.61  |
| K | 3.10 | L | 0.61 | M  | 2.21  |
| N | 0.30 | P | 1.80 | wt | 0.02g |