



## Features

- Low cost
- Small size
- 5 sections
- Temperature stable
- Excellent power handling
- LTCC construction with great moisture resistance, corrosion resistance, and high reliability

## Applications

- Sub-harmonic rejection
- Transmitters / receivers

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

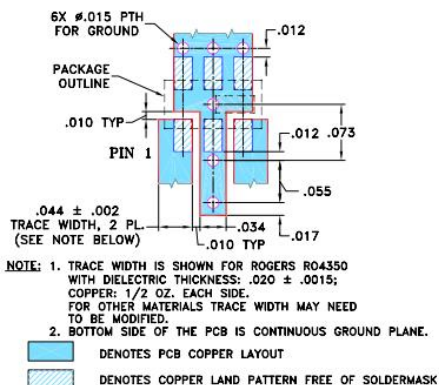
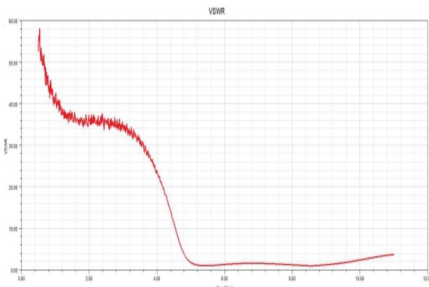
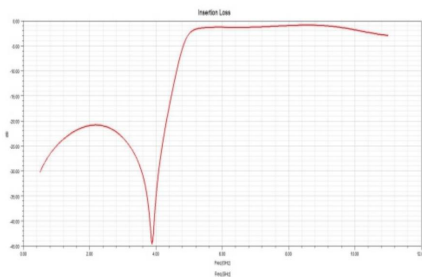
| STOP BAND<br>(MHz)  |                     | FCO <sub>0</sub> (MHz)<br>Nom. | PASS BAND<br>(MHz)   |                      | VSWR<br>(:1)     |                             | POWER<br>INPUT<br>(W) | NO. OF<br>SECTIONS |
|---------------------|---------------------|--------------------------------|----------------------|----------------------|------------------|-----------------------------|-----------------------|--------------------|
| (Loss>30dB)<br>Typ. | (Loss>20dB)<br>Min. | (Loss 3dB)<br>Typ.             | (Loss<2.0dB)<br>Max. | (Loss<1.5dB)<br>Max. | Stopband<br>Typ. | Frequency<br>(MHz)<br>1.5:1 |                       |                    |
| 3600                | 4200                | 5050                           | 5650-9700            | 5500-10000           | 20:1             | 5200-10000                  | 7                     | 5                  |

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

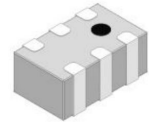
## Typical Performance Data at 25° C

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | VSWR<br>(:1) |
|--------------------|------------------------|--------------|
| 50                 | 62.43                  | 732.18       |
| 900                | 38.60                  | 60.37        |
| 1760               | 35.58                  | 57.93        |
| 2850               | 40.06                  | 49.49        |
| 3770               | 34.69                  | 32.79        |
| 4520               | 12.83                  | 6.16         |
| 5380               | 1.47                   | 1.06         |
| 5970               | 1.24                   | 1.30         |
| 6550               | 1.33                   | 1.64         |
| 7500               | 1.09                   | 1.52         |
| 8080               | 0.93                   | 1.34         |
| 8510               | 0.87                   | 1.07         |
| 9030               | 0.97                   | 1.28         |
| 9400               | 1.14                   | 1.79         |
| 10000              | 1.83                   | 2.87         |

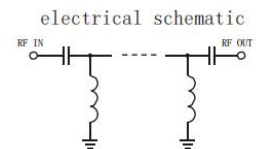
## Suggested PCB Layout



## JY-HFCN-5050+



50Ω 5500 to 10000 MHz



## Pin Connections

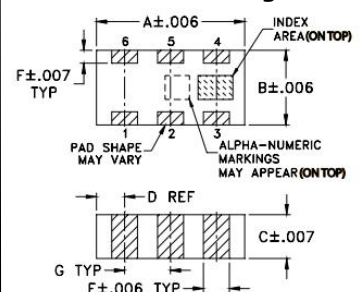
|        |         |
|--------|---------|
| RF IN  | 1       |
| RF OUT | 3       |
| GROUND | 2,4,5,6 |

## Maximum Ratings

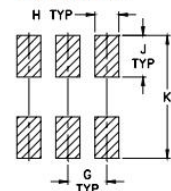
|                       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input        | 7W at 25°C     |

\* Passband rating, derate linearly to 3.5W 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 | 0.89 |
| D | 0.61 | E  | 0.56   | F | 0.28 |
| G | 0.99 | H  | 0.61   | J | 1.07 |
| K | 3.12 | wt | 0.020g |   |      |