

## 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
- base station of mobile communication and lab use

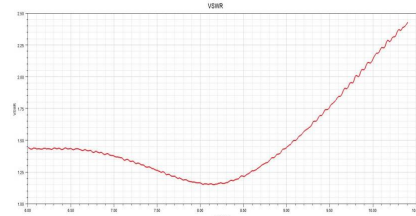
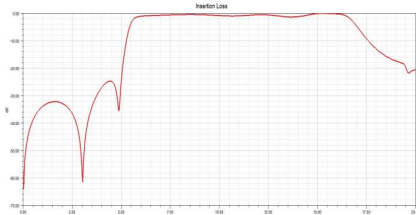
## Electrical Specifications <sup>1</sup> (T<sub>AMB</sub>= 25° C)

| STOP BAND<br>(MHz)  |                     | FCO <sub>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<3dB)<br>Max. | (Loss<5dB)<br>Max. | Stopband<br>Typ. | Frequency<br>(MHz)<br>1.5:1 | Max                   |                    |
| 4800                | 4900                | 6100                           | 6350-13000         | 6300-15000         | 20:1             | 6050-8000                   | 7                     | 5                  |

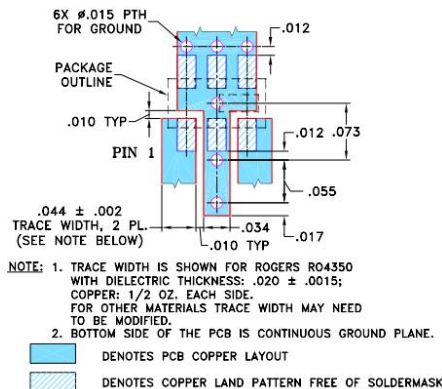
<sup>1</sup>. In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

## Typical Performance Data at 25° C

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | VSWR<br>(:1) |
|--------------------|------------------------|--------------|
| 50                 | 62.43                  | 1732.18      |
| 900                | 38.60                  | 1500.37      |
| 1760               | 35.58                  | 157.9        |
| 2850               | 40.06                  | 69.49        |
| 3770               | 39.69                  | 32.79        |
| 4520               | 26.83                  | 27.16        |
| 5380               | 6.27                   | 4.72         |
| 5970               | 1.04                   | 1.60         |
| 6550               | 0.87                   | 1.47         |
| 7500               | 0.63                   | 1.42         |
| 8480               | 0.49                   | 1.34         |
| 9610               | 0.75                   | 1.98         |
| 12530              | 0.66                   | 2.12         |
| 15000              | 0.14                   | 1.12         |
| 18000              | 13.19                  | 32.61        |



## Suggested PCB Layout

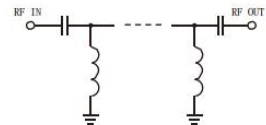


## JY-HFCN-6010+



50 Ω 6300 to 15000 MHz

## electrical schematic



## Pin Connections

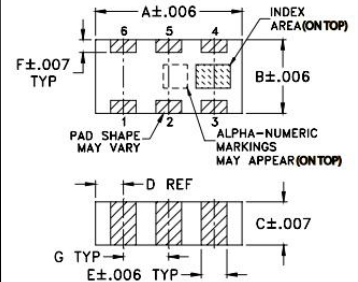
|        |         |
|--------|---------|
| RF IN  | 1       |
| RF OUT | 3       |
| GROUND | 2,4,5,6 |

## Maximum Ratings

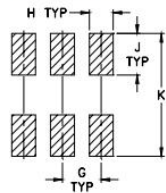
|                       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input        | 7W at 25°C     |

\*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 |   |      |