

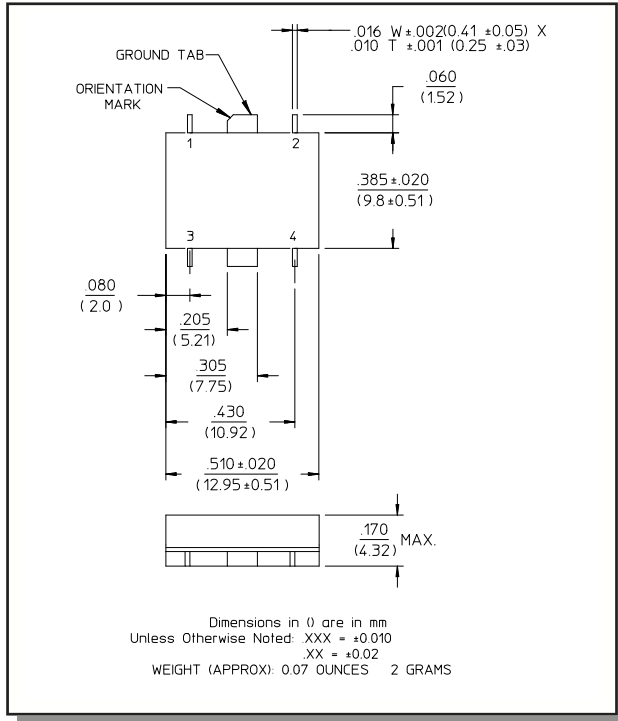
### Features

- n Constant Coupling - Within  $\pm 0.5$  dB Max.
- n MIL-STD-202 Screening Available

### Description

Bi-Directional Couplers offer the ability to couple the power in two directions while maintaining directivity.

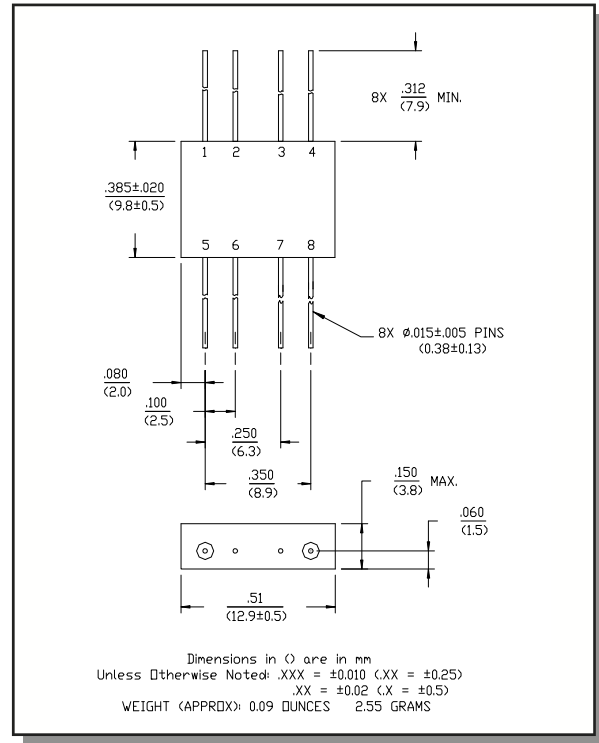
### SF-1 (CHS-134)



### Pin Configuration (CHS-134)

| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| 1       | C        | 3       | A        |
| 2       | B        | 4       | D        |

### FP-2 (CH-134)



### Pin Configuration (CH-134)

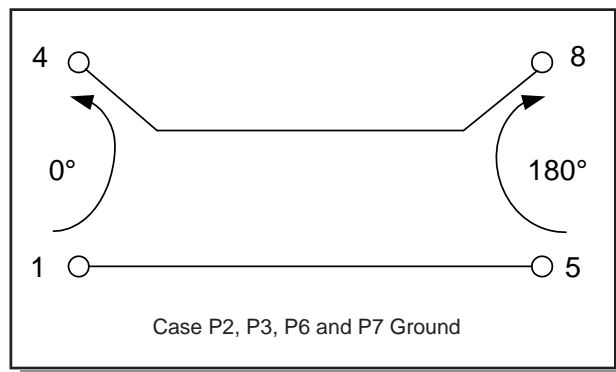
| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| 1       | C        | 5       | A        |
| 2       | GND      | 6       | GND      |
| 3       | GND      | 7       | GND      |
| 4       | B        | 8       | D        |

## Electrical Specifications<sup>1</sup>: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

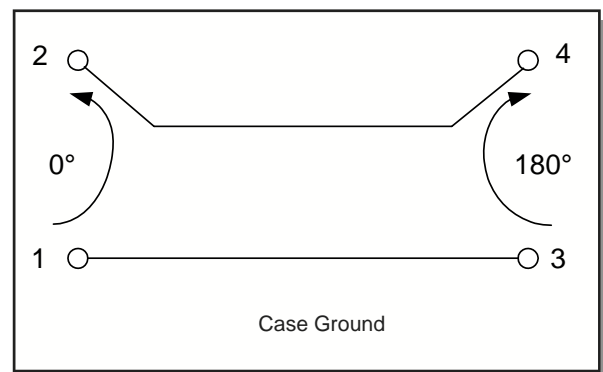
| Parameter                   | Test Conditions | Frequency                    | Units          | Min    | Typ    | Max            |
|-----------------------------|-----------------|------------------------------|----------------|--------|--------|----------------|
| Coupling                    | Input to Output | —                            | dB             | 10.1   | 10.8   | 11.5           |
| Coupling Flatness           | —               | —                            | dB             | —      | —      | $\pm 0.5$      |
| VSWR                        | All Ports       | 10 - 500 MHz<br>25 - 200 MHz | Ratio<br>Ratio | —<br>— | —<br>— | 1.8:1<br>1.5:1 |
| Directivity                 | Both Directions | —                            | dB             | 20     | —      | —              |
| Main Line Loss <sup>2</sup> | —               | —                            | dB             | —      | —      | 1.6            |
| Input Power                 | —               | —                            | Watt           | —      | —      | 1.0            |

- All specifications apply with 50 ohm source and load impedance.
  - Includes theoretical power split.
- This product contains elements protected by United States Patent number 3,426,298.

### Functional Diagram (CH-134)

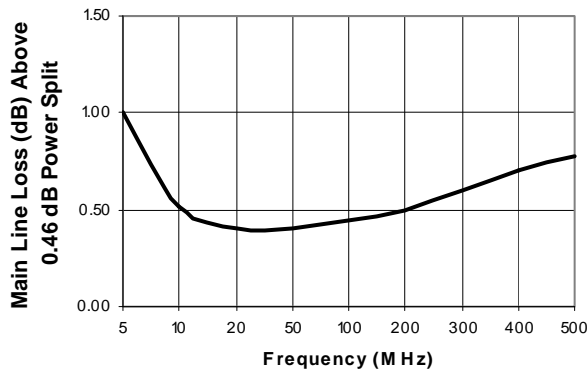


### Functional Diagram (CHS-134)

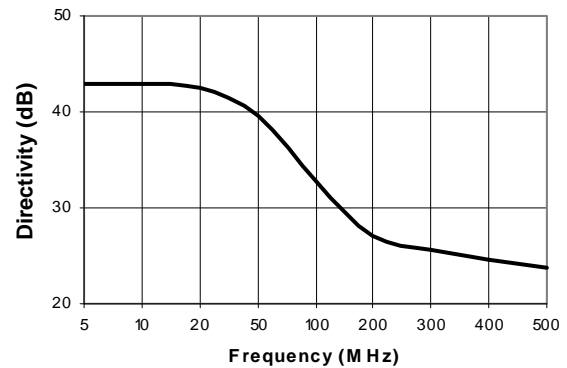


## Typical Performance Curves

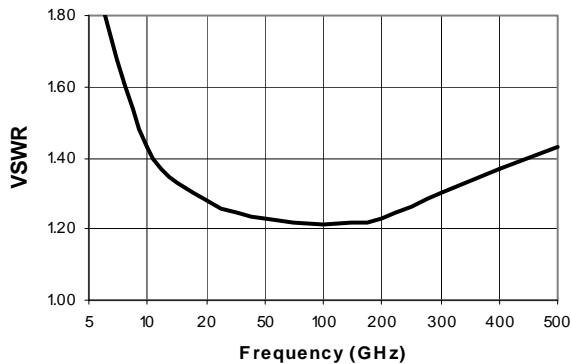
**Main Line Loss**



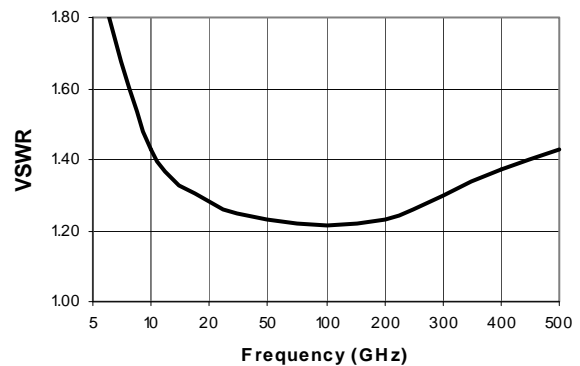
**Directivity**



**VSWR**



**Coupling**



## Ordering Information

| Part Number | Package |
|-------------|---------|
| CH-134 PIN  | FP-2    |
| CHS-134 PIN | SF-1    |