

## 2 Way-0° 50Ω 800 to 1175 MHz

CASE STYLE F·FV1206-1

|                             |                |
|-----------------------------|----------------|
| Operating Temperature       | -55°C to 100°C |
| Storage Temperature         | -55°C to 100°C |
| Power Input (as a splitter) | 20W* max.      |

Permanent damage may occur if any of these limits are exceeded.

|          |                            |
|----------|----------------------------|
| SUM PORT | 2                          |
| PORT 1   | 6                          |
| PORT 2   | 4                          |
| GROUND   | 1,3,5                      |
| PORT 1-2 | resistor external 100 OHMS |

## resistor external 100 OHMS

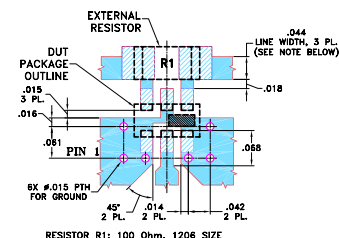
Figure 1 shows two views of a component with various dimensional callouts. The top view shows a rectangular component with dimensions  $A \pm .006$  and  $B \pm .006$ . It features six numbered pads (1-6) and an index area (containing alpha-numeric markings) on the right side. The side view shows a component with dimensions  $C \pm .007$  and  $D \text{ REF}$ . It also features a G type pad on the left and an  $E \pm .006 \text{ TYP}$  dimension for the bottom edge. The text "PAD SHAPE MAY VARY" and "INDEX AREA (ONTOP)" are present.

A schematic diagram showing a 2x3 grid of rectangular components. The top row is labeled 'H TYP' with a dimension line indicating the height of one component. The bottom row is labeled 'J TYP' with a dimension line indicating the height of one component. The width of the grid is labeled 'G TYP' with a dimension line. The components are represented by rectangles with diagonal hatching.

| A    | B    | C    | D    | E    | F     |
|------|------|------|------|------|-------|
| .126 | .063 | .035 | .024 | .022 | .011  |
| 3.20 | 1.60 | 0.89 | 0.61 | 0.56 | 0.28  |
| G    | H    | J    | K    |      | wt    |
| .039 | .024 | .042 | .123 |      | grams |
| 0.99 | 0.61 | 1.07 | 3.12 |      | .020  |

EXTERNAL RESISTOR

.044  
LINE WIDTH, 3 PL.



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS  $0.020 \pm 0.0015"$ ; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH 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                     |

**Notes:**

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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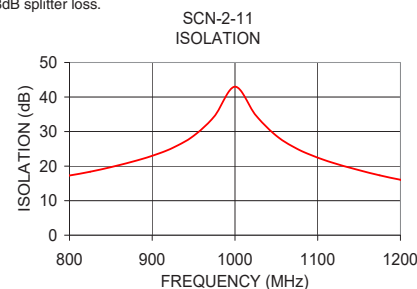
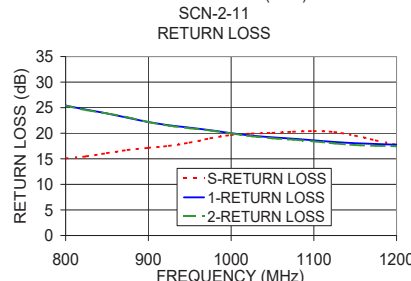
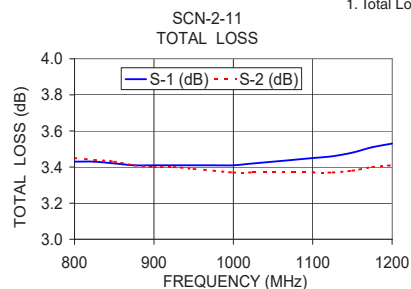
- isolation resistor, external 100 ohms
- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1.0 deg. typ.
- high isolation, 22 dB typ.
- excellent power handling, 20W as splitter
- small size, 0.12"X0.06"X0.035"
- ESD non-sensitive
- temperature stable LTCC technology
- wrap around terminations for excellent solderability
- low cost
- protected by US patent 6.967.544

- GSM
- ISM
- cellular

| FREQUENCY<br>(MHz) | INSERTION LOSS<br>(dB)<br>ABOVE 3.0 dB |      | ISOLATION<br>(dB) |      | PHASE<br>UNBALANCE<br>(Degrees) |      | AMPLITUDE<br>UNBALANCE<br>(dB) |      | RETURN LOSS<br>(dB) |                |
|--------------------|----------------------------------------|------|-------------------|------|---------------------------------|------|--------------------------------|------|---------------------|----------------|
|                    |                                        |      |                   |      |                                 |      |                                |      | INPUT<br>Typ.       | OUTPUT<br>Typ. |
|                    |                                        | Typ. | Max.              | Typ. | Min.                            | Typ. | Max.                           | Typ. | Max.                |                |
| 800-1175           | 0.5                                    | 0.8  | 20                | 15   | 1.0                             | 3.0  | 0.1                            | 0.3  | 16                  | 18             |
| 875-1125           | 0.5                                    | 0.8  | 22                | 18   | 1.0                             | 3.0  | 0.1                            | 0.3  | 16                  | 20             |

| Frequency<br>(MHz) | Total Loss <sup>1</sup><br>(dB) |      | Amplitude<br>Unbalance<br>(dB) | Isolation<br>(dB) | Phase<br>Unbalance<br>(deg.) | Return Loss<br>(dB) |       |       |
|--------------------|---------------------------------|------|--------------------------------|-------------------|------------------------------|---------------------|-------|-------|
|                    | S-1                             | S-2  |                                |                   |                              | S                   | 1     | 2     |
| 800.00             | 3.43                            | 3.45 | 0.02                           | 17.28             | 0.11                         | 15.07               | 25.43 | 25.41 |
| 825.00             | 3.43                            | 3.44 | 0.01                           | 18.38             | 0.13                         | 15.48               | 24.60 | 24.52 |
| 850.00             | 3.42                            | 3.43 | 0.01                           | 19.70             | 0.14                         | 16.10               | 23.86 | 23.88 |
| 875.00             | 3.41                            | 3.41 | 0.00                           | 21.21             | 0.14                         | 16.72               | 23.02 | 23.11 |
| 900.00             | 3.41                            | 3.40 | 0.01                           | 22.98             | 0.15                         | 17.14               | 22.19 | 22.21 |
| 925.00             | 3.41                            | 3.40 | 0.01                           | 25.31             | 0.14                         | 17.53               | 21.56 | 21.46 |
| 950.00             | 3.41                            | 3.39 | 0.02                           | 28.76             | 0.12                         | 18.16               | 21.09 | 20.97 |
| 975.00             | 3.41                            | 3.38 | 0.03                           | 34.40             | 0.14                         | 19.00               | 20.59 | 20.53 |
| 1000.00            | 3.41                            | 3.37 | 0.04                           | 42.99             | 0.16                         | 19.65               | 20.02 | 19.96 |
| 1025.00            | 3.42                            | 3.37 | 0.05                           | 34.77             | 0.20                         | 19.92               | 19.53 | 19.39 |
| 1050.00            | 3.43                            | 3.37 | 0.06                           | 28.77             | 0.23                         | 20.08               | 19.20 | 19.01 |
| 1100.00            | 3.45                            | 3.37 | 0.08                           | 22.45             | 0.27                         | 20.43               | 18.61 | 18.40 |
| 1125.00            | 3.46                            | 3.37 | 0.09                           | 20.49             | 0.31                         | 20.22               | 18.29 | 18.00 |
| 1150.00            | 3.48                            | 3.38 | 0.10                           | 18.83             | 0.34                         | 19.53               | 18.05 | 17.69 |
| 1175.00            | 3.51                            | 3.40 | 0.11                           | 17.34             | 0.36                         | 18.61               | 17.90 | 17.54 |

1. Total Loss = Insertion Loss + 3dB splitter loss.



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