

**High Power Circulator SMA Female With 20 dB Isolation From 135 MHz to 175 MHz Rated to 150 Watts**

Fairview Microwave carries a broad selection of circulators to fit your needs. These unique devices allow two different direction signals to share the same channel. The classic use of this three port device is for routing signals between an antenna and a transceiver, allowing the receive signal to enter from the antenna (port 1) and exit to the receiver (port 2) while the transmit signal enters from the transmitter (port 3) and exits to the antenna (port 1). The circulator can also be used as an isolator by placing a matched load into one of the ports. These components can be used in antenna transmitting and receiving, radar, amplifier systems and any application that requires isolation from a signal reflection and the ability to send signals in opposite directions down a single channel. These circulators feature excellent insertion loss, high isolation and reliability.

The SFC1317S is a high power single junction circulator that operates from 135 to 175 MHz and can handle up to 150 Watts (CW) in the forward direction and 100 Watts (CW) in the reverse direction. The coaxial part uses SMA female connectors on all ports and has electrical specifications of 1.3:1 max VSWR, 20 dB min isolation and 0.5 dB max insertion loss. The package is REACH and RoHS certified.

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	135		175	MHz
Impedance		50		Ohms
Insertion Loss			0.5	dB
Isolation	20			dB
VSWR			1.3:1	
Forward Power, CW			150	Watts
Reverse Power, CW			100	Watts

**Electrical Specification Notes:**

Values at 25°C, sea level.

Minimum isolation of 16.5 dB from -10°C to -30°C, and 17 dB from +60°C to +70°C.

Maximum insertion loss of 0.7 dB from -10°C to -30°C.

**Mechanical Specifications**

**Size**

Length	3 in [76.2 mm]
Width	3 in [76.2 mm]
Height	1.2 in [30.48 mm]
Weight	1.67 lbs [757.5 g]

**Configuration**

Design	Single Junction
Package Style	Connectorized
Connector 1	SMA Female
Connector 2	SMA Female
Connector 3	SMA Female

**Environmental Specifications**

**Temperature**

Operating Range	-30 to +70 deg C
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**Features:**

- High Power Single Junction Circulator
- 135 to 175 MHz Frequency Range
- Max Forward Power 150W (CW)
- Max Reverse Power 100W (CW)
- Insertion Loss < 0.5 dB
- VSWR < 1.3:1
- Isolation > 20 dB
- SMA Female Connectors

**Applications:**

- Radar Systems
- Military
- Wireless Radio Systems
- Telecom Infrastructure
- Communication Systems
- R&D Labs
- Microwave Radio Systems

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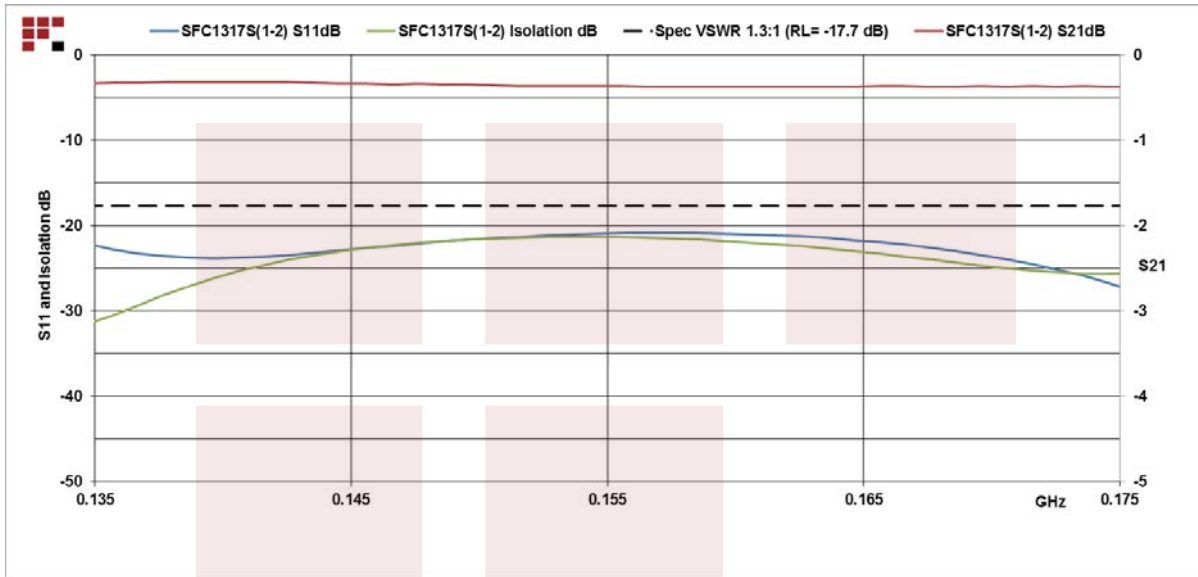
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant Yes  
 REACH Compliant 12/17/2015

**Plotted and Other Data**

Notes:

**Typical Performance Data**

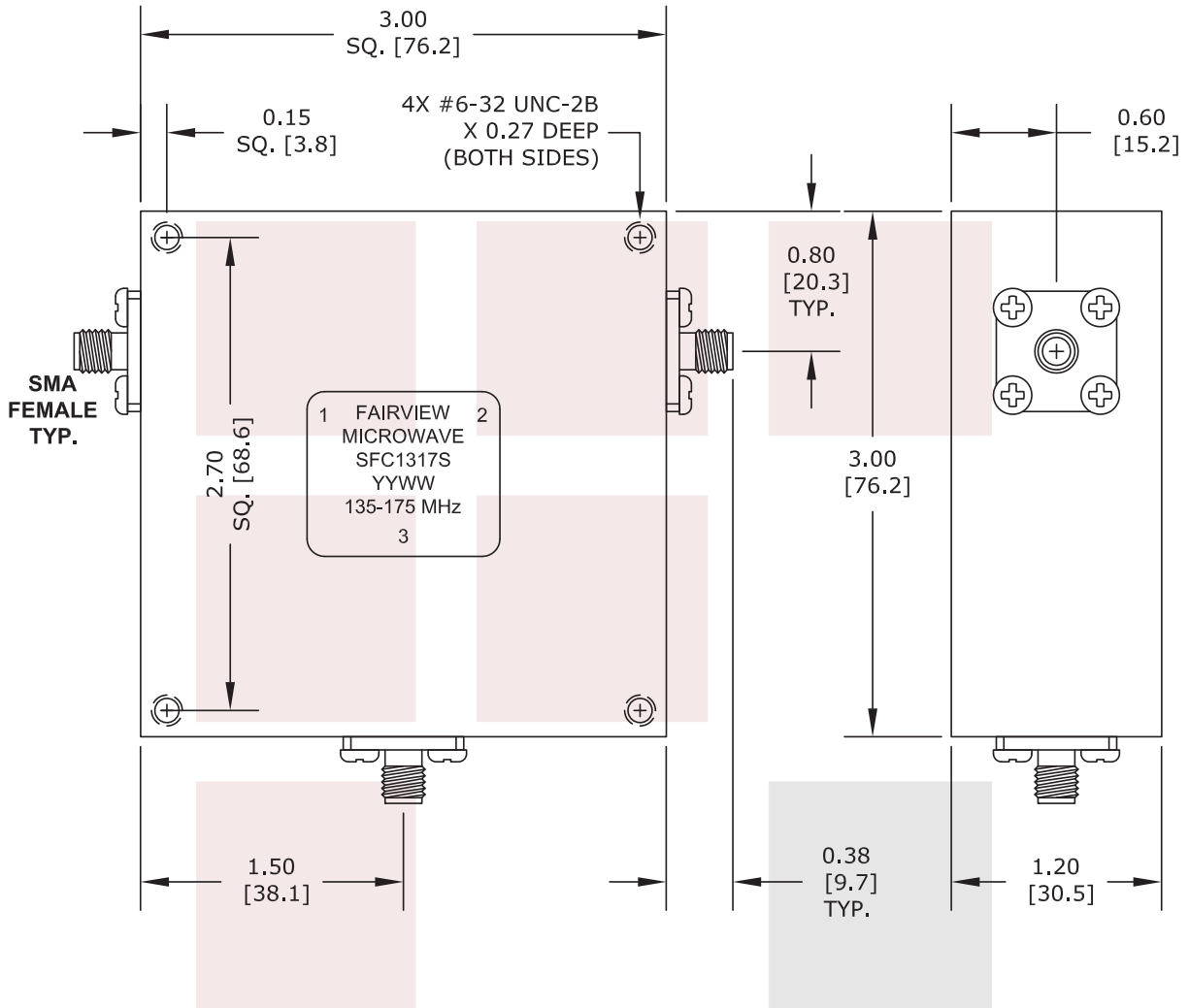


High Power Circulator SMA Female With 20 dB Isolation From 135 MHz to 175 MHz Rated to 150 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [High Power Circulator SMA Female With 20 dB Isolation From 135 MHz to 175 MHz Rated to 150 Watts SFC1317S](http://www.fairviewmicrowave.com/sma-circulator-20-db-isolation-135-175-mhz-150-watts-sfc1317s-p.aspx)

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.1
.XXX	±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE High Power Circulator SMA Female With 20 dB Isolation From 135 MHz to 175 MHz Rated to 150 Watts		DWG NO SFC1317S		CAGE CODE 3FKR5	
CAD FILE	041416	SHEET	SCALE	N/A	SIZE A 3045