

Isolator with 12 dB Isolation from 2 GHz to 6 GHz, 10 Watts and SMA Female

PE83IR1039



Features

- Forward Power 10 watts
- Wide-Band Operating of 2 to 6 GHz
- Female SMA Connectors
- Low VSWR of 1.80:1 Max
- Low Insertion Loss of 1.8 dB Max
- Good Isolation Performance of 12 dB Minimum

Applications

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

Description

The PE83IR1039 is an RF isolator offering a forward power rating of 10 watts over an operational frequency band of 2 to 6 GHz. This coaxial part uses SMA female connectors on all ports and has a minimum of 12 dB of isolation.

Pasternack Enterprises offers a wide variety of isolators to fit your needs. These are two-port devices that transmit microwave or radio frequency power in one direction only and block the signal in the opposite direction. They can be thought of as a diode for RF energy. Isolators are used to isolate equipment from the effects of conditions outside of the equipment. For instance they are used to prevent a microwave source being detuned by a mismatched load. Pasternack's isolators feature excellent insertion loss, high isolation and reliability.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	2		6	GHz
Impedance		50		Ohms
Insertion Loss			1.8	dB
Isolation	12			dB
VSWR			1.8:1	
Forward Power, CW			10	Watts

Mechanical Specifications

Size

Length	1.57 in [39.88 mm]
Width	0.91 in [23.11 mm]
Height	0.51 in [12.95 mm]
Weight	0.11 lbs [49.9 g]
Body Material and Plating	Aluminum, Nickel

Configuration

Design	Single Junction
Direction	Clockwise
Connector 1	SMA Female
Connector 2	SMA Female

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Environmental Specifications

Temperature

Operating Range

-20 to +70 deg C

Storage Range

-40 to +85 deg C

Humidity

100% RH at 35°C, 95%RH at 40°C

Shock

20G for 11msec half sine wave, 3 axis both directions

Vibration

25gRMS (15 degrees 2KHz) endurance, 1 hour per axis

Altitude

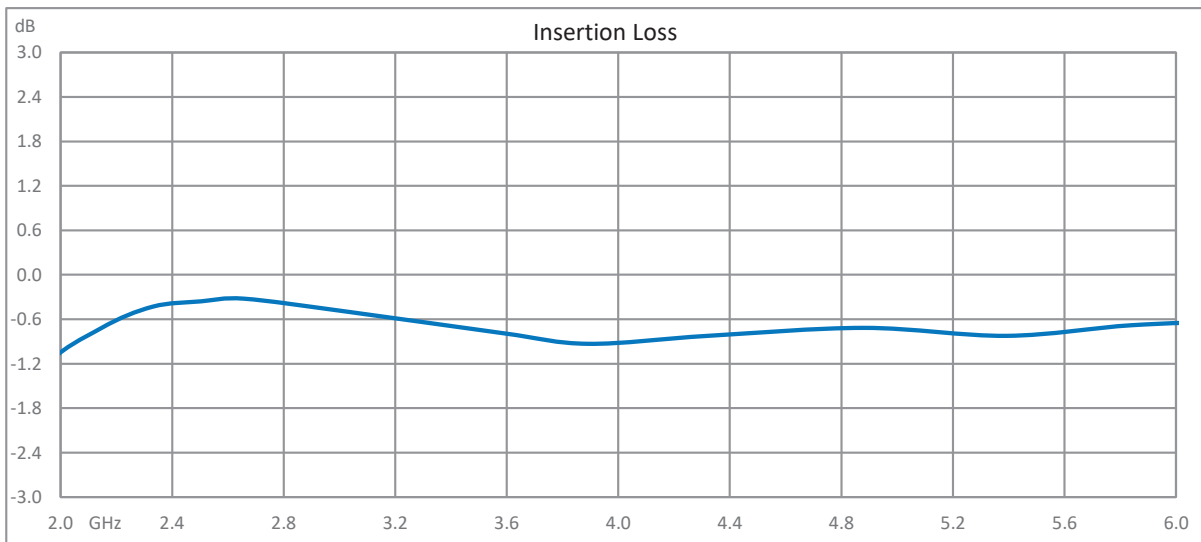
30,000 ft. (Epoxy Sealed Controlled environment)

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

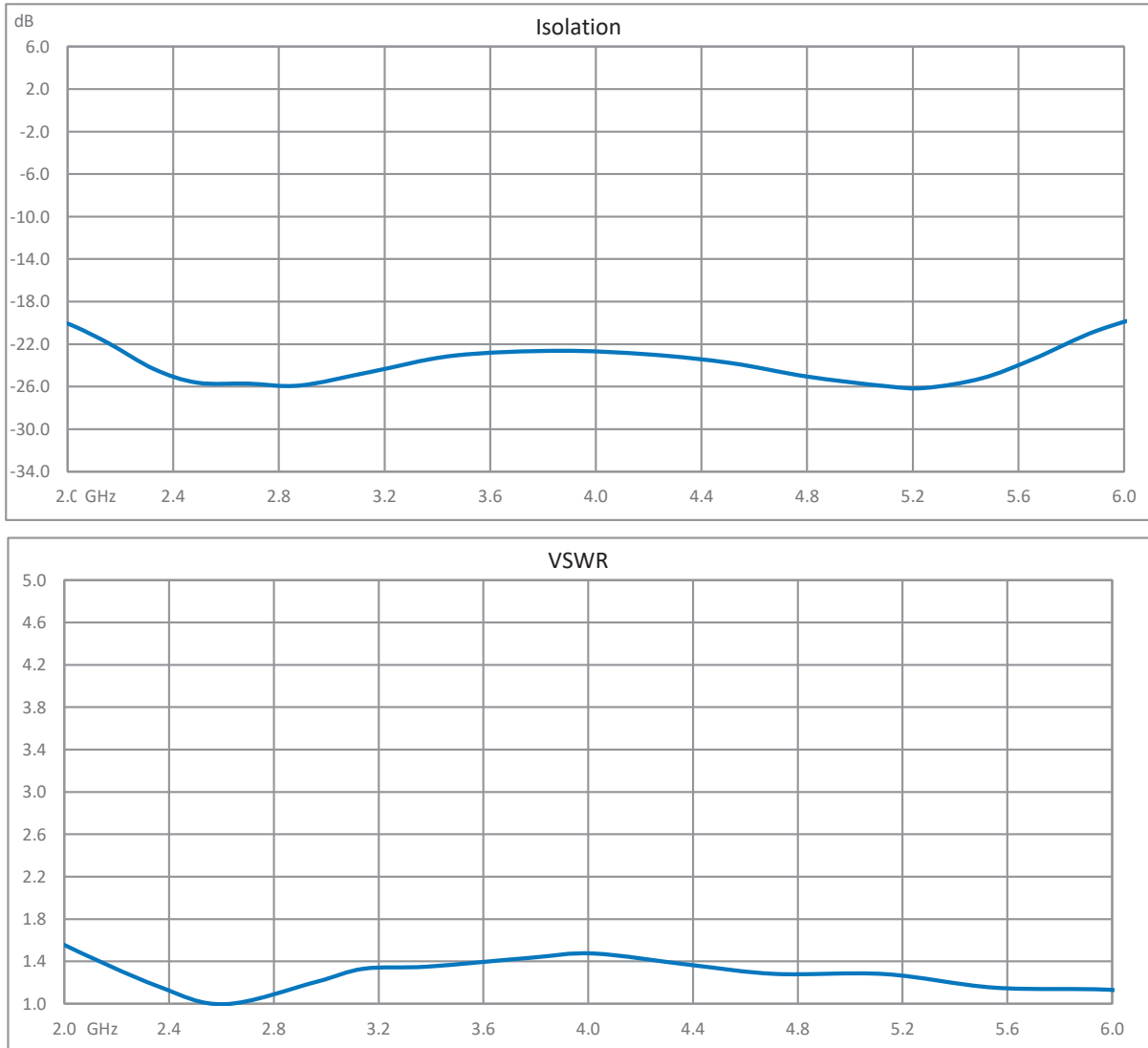
Notes:

Typical Performance Data



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Isolator with 12 dB Isolation from 2 GHz to 6 GHz, 10 Watts and SMA Female from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Isolator with 12 dB Isolation from 2 GHz to 6 GHz, 10 Watts and SMA Female PE83IR1039](https://www.pasternack.com/isolator-12db-isolation-6-ghz-10-watts-sma-female-pe83ir1039-p.aspx)

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The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Pasternack Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE83IR1039 CAD Drawing

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