



Circulator With 20 dB Isolation From 7 GHz to 12.4 GHz, 10 Watts And N Female

Circulators Technical Data Sheet

PE8413

Features

- Single Junction Circulator
- 7 to 12.4 GHz Frequency Range
- Max Forward and Reverse Power 10W (CW)
- Insertion Loss < 0.6 dB
- VSWR < 1.25:1
- Isolation 20 dB
- N Female Connectors

Applications

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

Description

Pasternack offers a wide variety of circulators to fit your needs. These unique devices enable two signals to use one channel. The classic use of this three port device is for the line/coax between an antenna and a transceiver, allowing the receive signal to come from the antenna (port 1) to the receiver (port 2) while the transmit signal goes from the transmitter (port 3) to the antenna (port 1). An isolator can be created by terminating one port into a matched load. These components can be used in antenna transmitting and receiving, radar, amplifier systems and anything 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 PE8413 is a single junction circulator that offers a power rating of 10 Watts (CW) in the forward and reverse direction over an operational frequency band of 7 to 12.4 GHz. Electrical performance includes 1.25:1 max VSWR, 20 dB typ isolation, and 0.6 dB max insertion loss. The package interface uses N female connectors, and is also REACH and RoHS compliant.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------|---------|---------|---------|-------|
| Frequency Range | 7 | | 12.4 | GHz |
| Impedance | | 50 | | Ohms |
| Insertion Loss | | | 0.6 | dB |
| Isolation | | 20 | | dB |
| VSWR | | | 1.25:1 | |
| Forward Power, CW | | | 10 | Watts |
| Reverse Power, CW | | | 10 | Watts |

Electrical Specification Notes:
Values at 25°C, sea level.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Circulator With 20 dB Isolation From 7 GHz to 12.4 GHz, 10 Watts And N Female PE8413](#)



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Mechanical Specifications

Size

| | |
|--------|--------------------|
| Length | 1 in [25.4 mm] |
| Width | 0.85 in [21.59 mm] |
| Height | 0.75 in [19.05 mm] |
| Weight | 0.2 lbs [90.72 g] |

Configuration

| | |
|---------------|-----------------|
| Design | Single Junction |
| Package Style | Connectorized |
| Connector 1 | N Female |
| Connector 2 | N Female |
| Connector 3 | N Female |

Environmental Specifications

Temperature

| | |
|-----------------|-----------------|
| Operating Range | 10 to +35 deg C |
|-----------------|-----------------|

Compliance Certifications (visit www.Pasternack.com for current document)

| | |
|-----------------|------------|
| RoHS Compliant | |
| REACH Compliant | 12/17/2015 |

Plotted and Other Data

Notes:

Circulator With 20 dB Isolation From 7 GHz to 12.4 GHz, 10 Watts And N Female from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

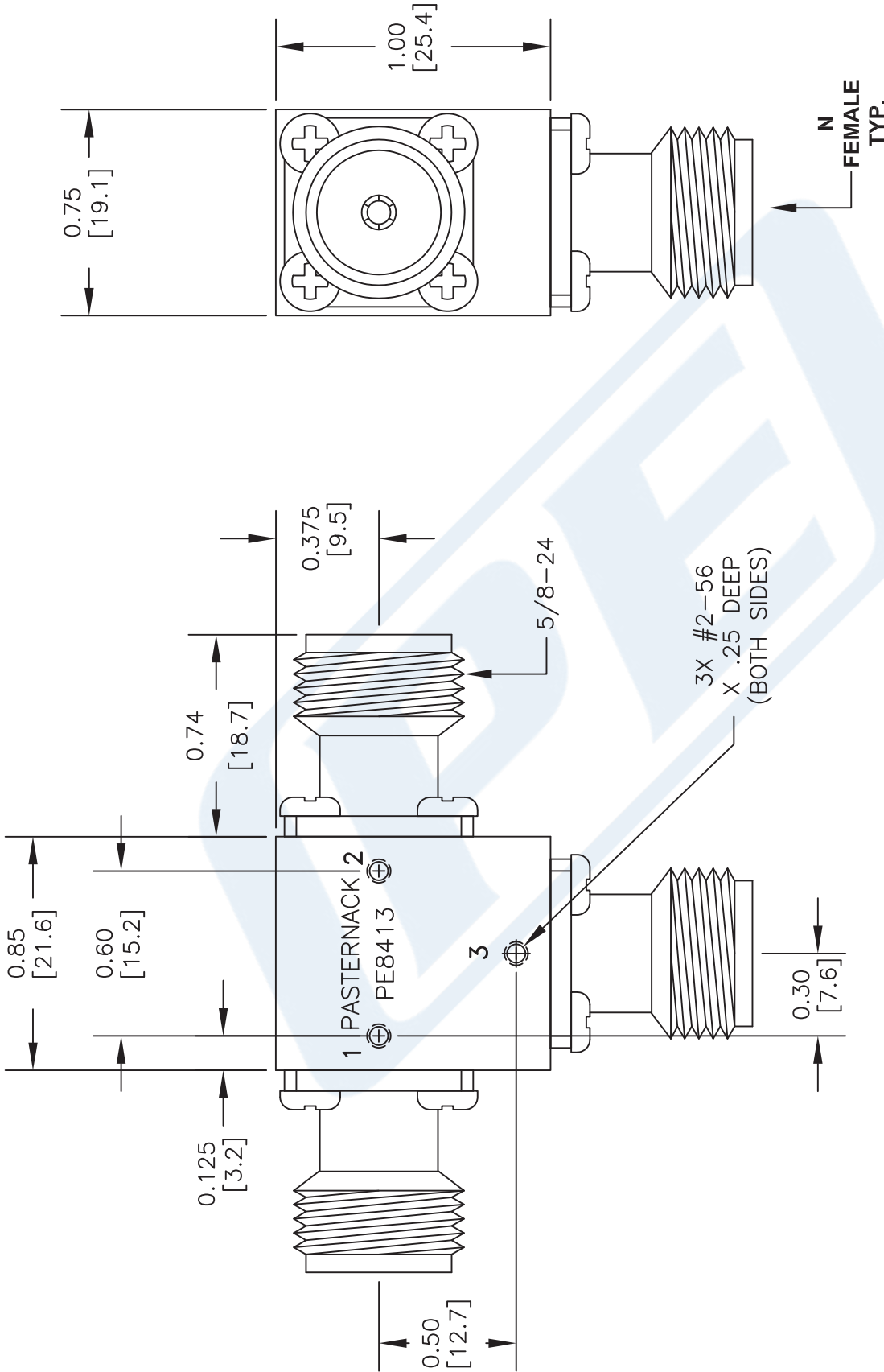
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URL: <http://www.pasternack.com/n-female-circulator-7-124-ghz-10w-p.aspx>

The information contained in 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 reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE8413 CAD Drawing

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NOTES:
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
 3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE
PE8413

FSCM NO. 53919

3045

SIZE A

SCALE N/A

CAD FILE 050516

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