



## 2.5 dB NF, 13 dBm P1dB, 2 GHz to 8 GHz, Low Noise Broadband Amplifier, 30 dB Gain, SMA

### TECHNICAL DATA SHEET

PE15A3291

The PE15A3291 is a broadband coaxial low noise amplifier, operating in the 2 to 8 GHz frequency range. The amplifier offers 13 dBm of P1dB min and 30 dB small signal gain min, with the gain flatness of  $\pm 2.0$  dB max and a Noise Figure of 2.5 dB. This low noise amplifier requires only a single positive DC supply, in unconditionally stable, operates over the temperature range of  $-20^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ , and is Hermetically sealed.

#### Features

- 2 to 8 GHz Frequency Range
- P1dB: 13 dBm min
- Small Signal Gain: 30 dB min
- Gain Flatness:  $\pm 2.0$  dB max
- Noise Figure: 2.5 dB max
- 50 Ohm Input and Output Matched
- $-20$  to  $+85^{\circ}\text{C}$  Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator

#### Applications

- Laboratory Applications
- R&D Labs
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Wireless Communications
- Unmanned Systems
- Microwave Radio Systems
- Low Noise Amplifier
- General Purpose Amplification
- RF Front Ends

#### Electrical Specifications (TA= 25°C, VDC1 = 12 Vdc)

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		8	GHz
Gain	30			dB
Output at 1 dB Compression Point	+13			dBm
Noise Figure		2.5		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1	11	12	13	Volts
Operating DC Current		150		mA
Operating Temperature Range (OTR)	-40		+80	$^{\circ}\text{C}$

#### Mechanical Specifications

##### Size

Length	1.083 in [27.51 mm]
Width	1.093 in [27.76 mm]
Height	0.382 in [9.7 mm]
Weight	0.087 lbs [39.46 g]
Input Connector	SMA Female
Output Connector	SMA Female

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.5 dB NF, 13 dBm P1dB, 2 GHz to 8 GHz, Low Noise Broadband Amplifier, 30 dB Gain, SMA PE15A3291](#)



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### Environmental Specifications

#### Temperature

Operating Range

-40 to +80 deg C

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

### Plotted and Other Data

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.

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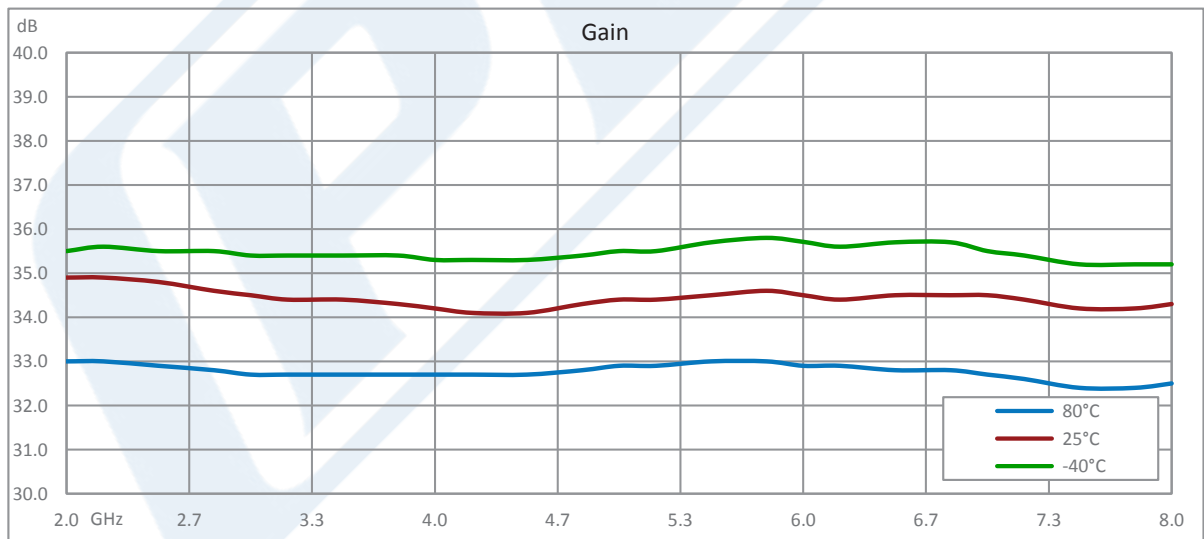
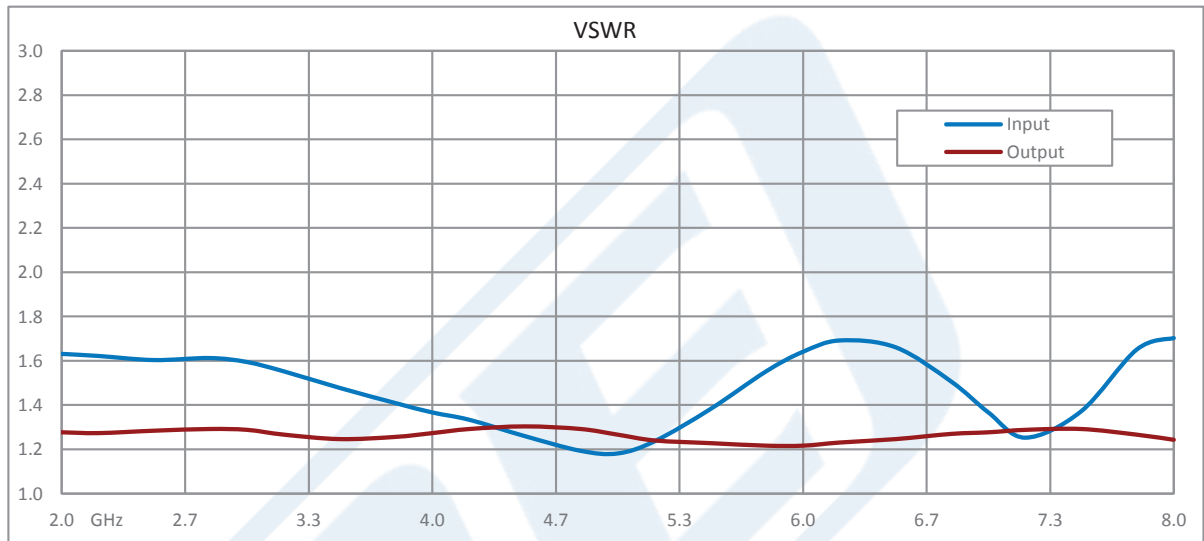


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Typical Performance Data



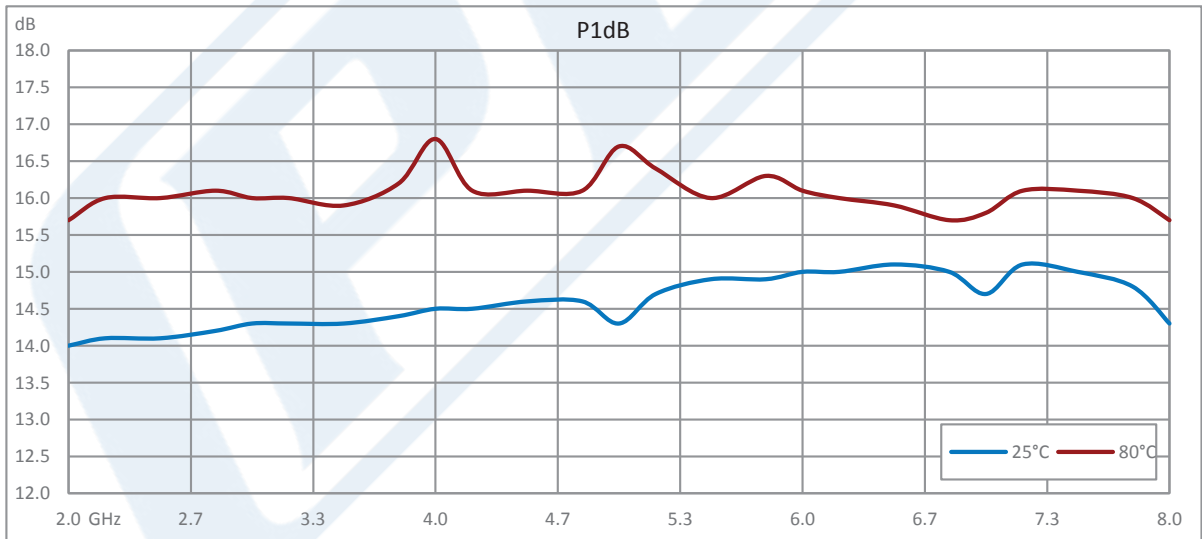
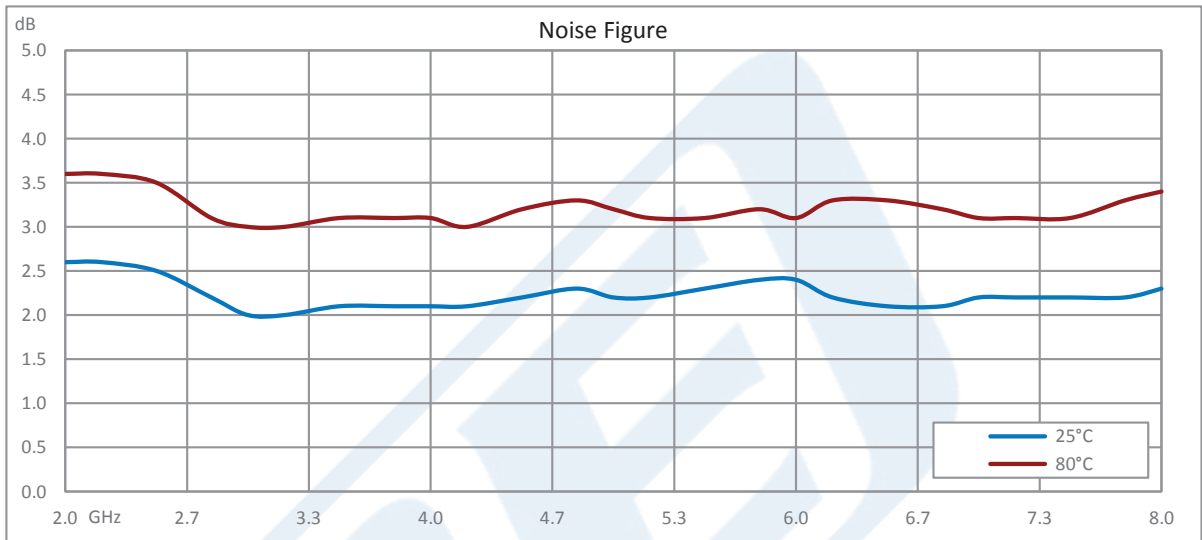
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2.5 dB NF, 13 dBm P1dB, 2 GHz to 8 GHz, Low Noise Broadband Amplifier, 30 dB Gain, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

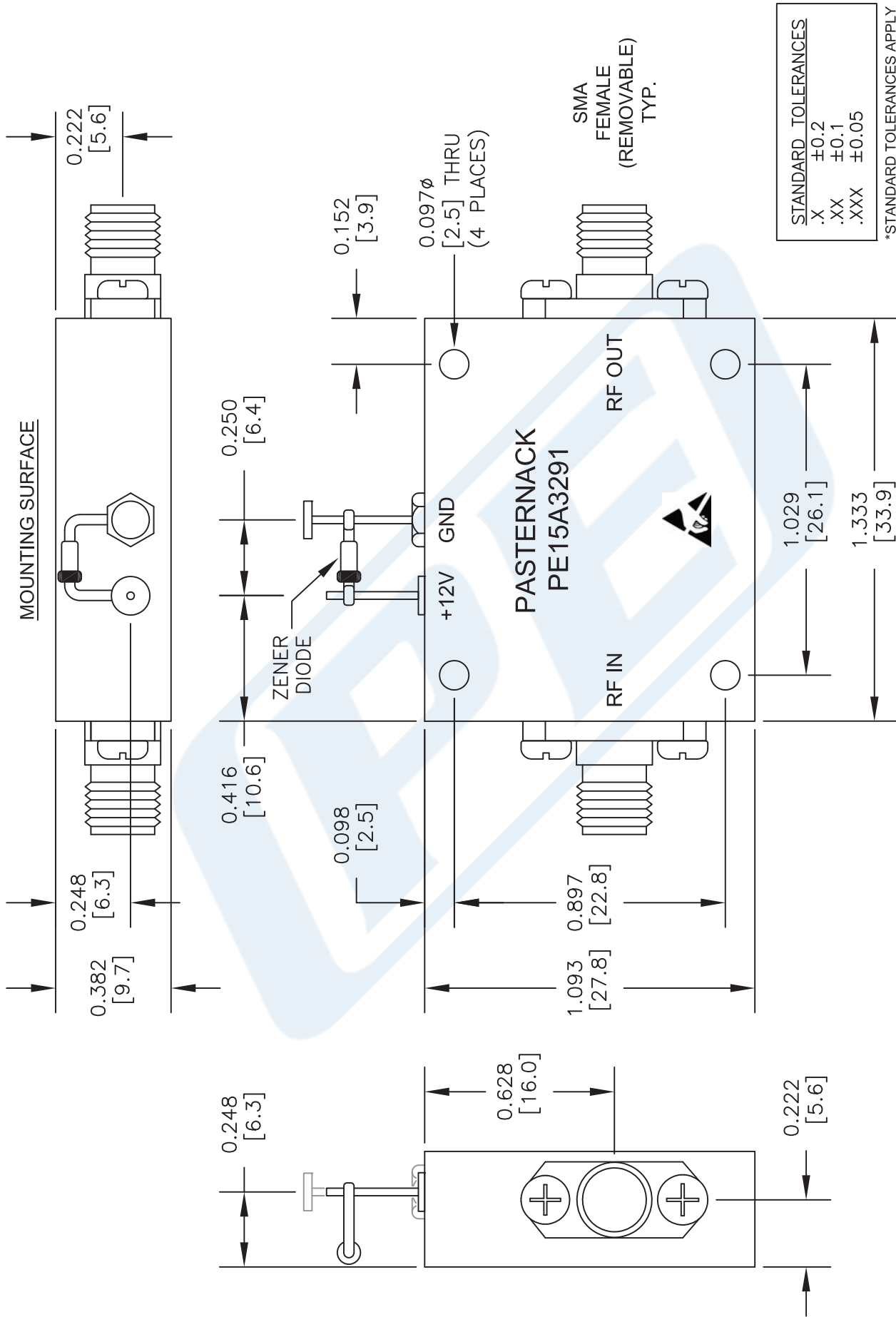
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

# PE15A3291 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  
**PE15A3291**

**PE PASTERNAK**  
THE ENGINEER'S RF SOURCE  
Pasternack Enterprises, Inc.  
P.O. Box 16759 | Irvine | CA | 92623  
Phone: (949) 261-1920 | Fax: (949) 261-7451  
Website: www.pasternack.com | E-Mail: sales@pasternack.com

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