



24 dBm P1dB, 500 MHz to 2.5 GHz, Medium Power
Broadband Amplifier, 24 dB Gain, 3.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4039

The PE15A4039 is a broadband coaxial power amplifier, operating in the 0.5 to 2.5 GHz frequency range. The amplifier offers 24 dBm of P1dB min and 23 dB small signal gain min, with the gain flatness of ± 2.0 dB max. This power amplifier requires only a single positive DC supply, in unconditionally stable, operates over the temperature range of -30°C to $+70^{\circ}\text{C}$, and is Hermetically sealed.

Features

- 0.5 to 2.5 GHz Frequency Range
- P1dB: 24 dBm min
- Small Signal Gain: 23 dB min
- Gain Flatness: ± 2.0 dB max
- 50 Ohm Input and Output Matched
- -30 to $+70^{\circ}\text{C}$ 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	0.5		2.5	GHz
Gain	23	24		dB
Gain Flatness		± 0.5	± 0.75	dB
Output at 1 dB Compression Point	+24			dBm
Noise Figure		3.5	4	dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1		12		Volts
Operating DC Current		240	250	mA
Quiescent Current		288		mA
Operating Temperature Range (OTR)	-30		+70	$^{\circ}\text{C}$

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [24 dBm P1dB, 500 MHz to 2.5 GHz, Medium Power Broadband Amplifier, 24 dB Gain, 3.5 dB NF, SMA PE15A4039](#)



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Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+12	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 to +70	°C
Storage Temperature	-55 to +85	°C



ESD Sensitive Material,
Transport material in
Approved ESD bags.
Handle only in approved
ESD Workstation.

Mechanical Specifications

Size

Length	1.13 in [28.7 mm]
Width	0.5 in [12.7 mm]
Height	0.9 in [22.86 mm]
Weight	0.0734 lbs [33.29 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-30 to +70 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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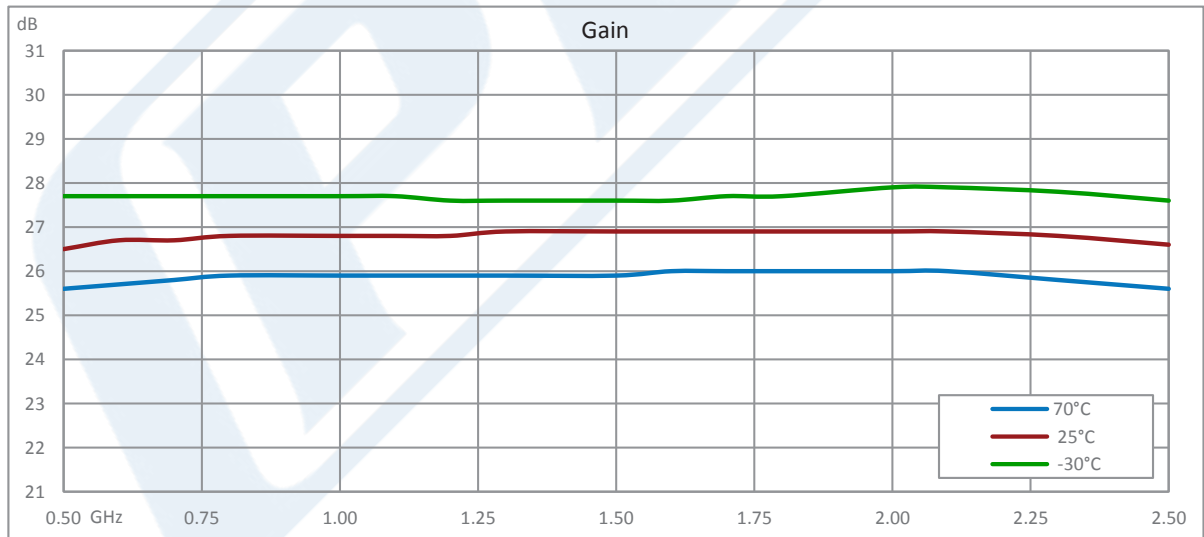
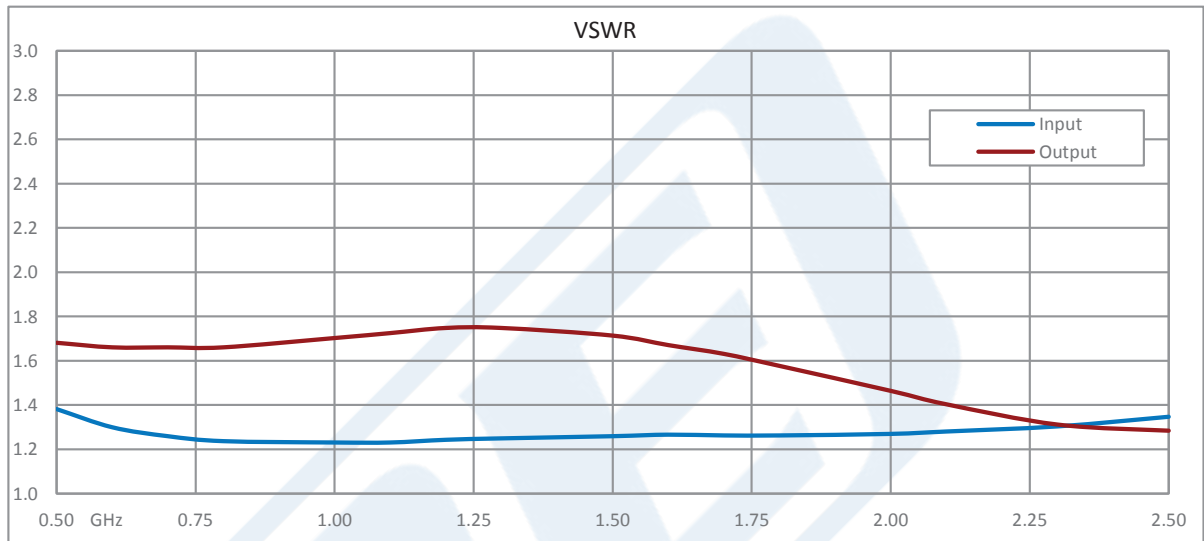


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Typical Performance Data



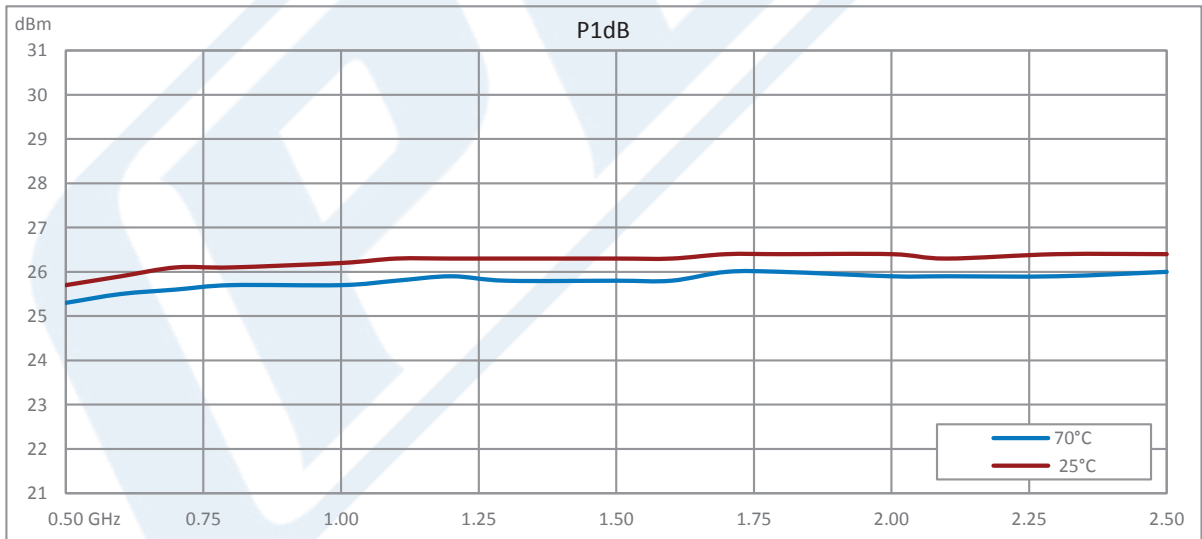
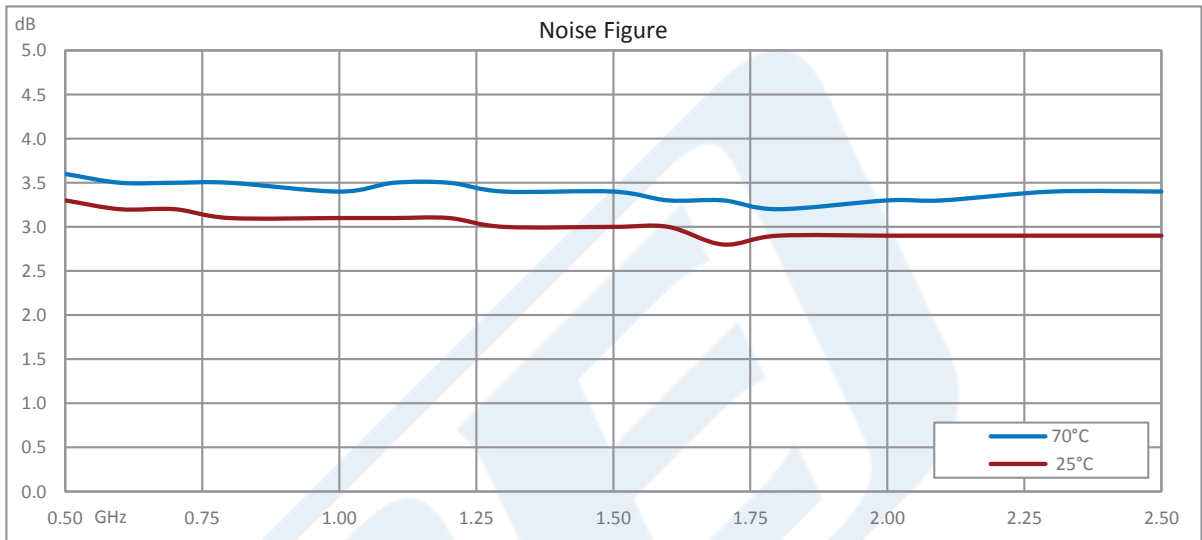
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24 dBm P1dB, 500 MHz to 2.5 GHz, Medium Power Broadband Amplifier, 24 dB Gain, 3.5 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

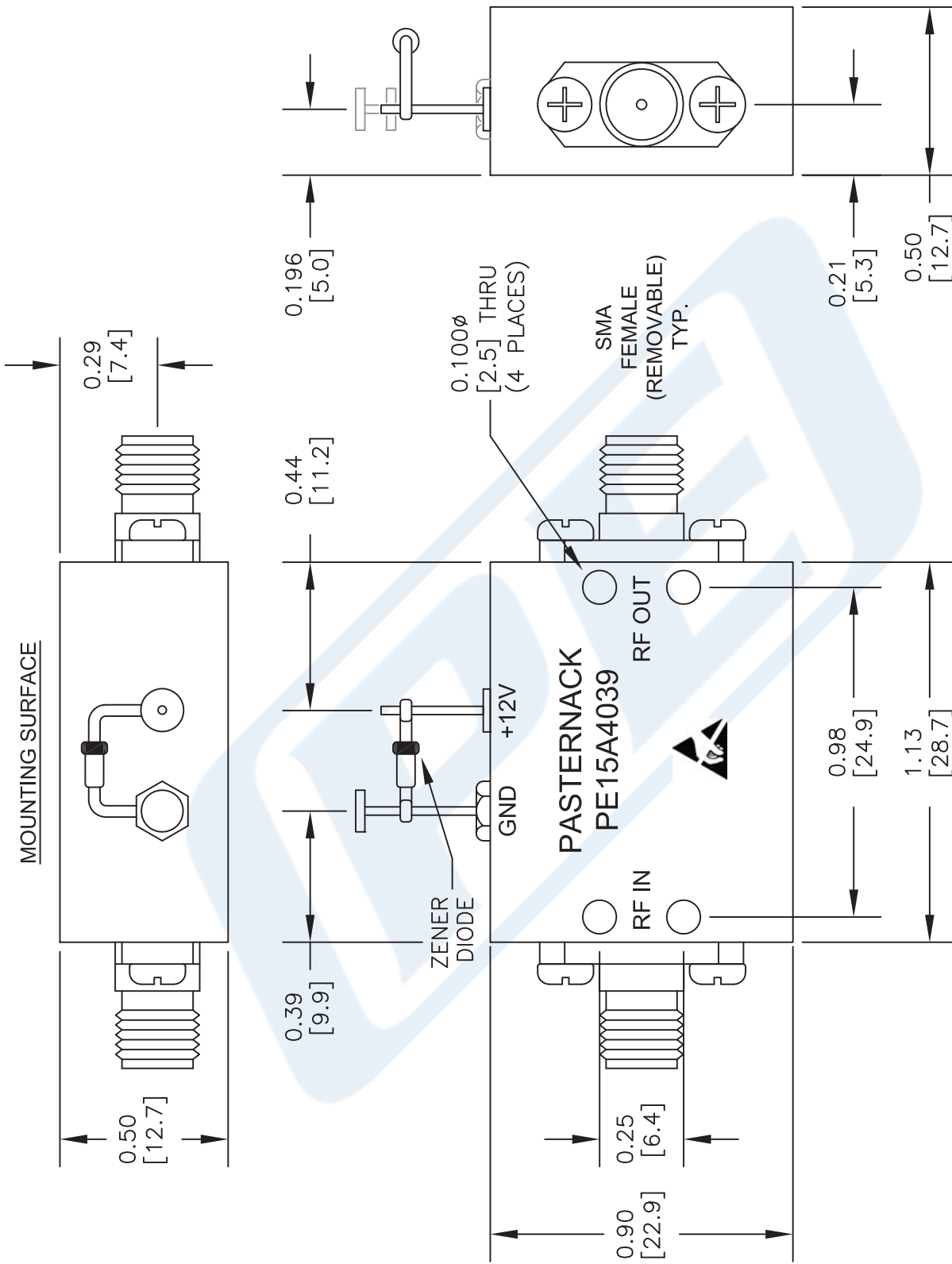
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PE15A4039 CAD Drawing

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NOTE:
HEAT SINK REQUIRED FOR PROPER OPERATION,
UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

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
PE15A4039

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CAGE CODE 53919

CAD FILE 032217

SCALE N/A

SIZE A

2233