



500 mW P1dB, 2 GHz to 6 GHz, 22 dB
Gain, 37 dBm IP3, 5.4 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4041

The PE15A4041 is a broadband coaxial power amplifier, operating in the 2.0 to 6.0 GHz frequency range. The amplifier offers 27 dBm of P1dB min and 22 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 -20°C to 85°C , and is Hermetically sealed.

Features

- 2.0 to 6.0 GHz Frequency Range
- P1dB: 27 dBm min
- Small Signal Gain: 22 dB min
- Gain Flatness: ± 2.0 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		6	GHz
Gain	20	22		dB
Gain Flatness		± 0.6		dB
Output at 1 dB Compression Point	+27			dBm
Output 3 rd Intercept Point		+37		dBm
Noise Figure		5.4		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1	11	12	15	Volts
Operating DC Current		420		mA
Operating Temperature Range (OTR)	-30		+70	$^{\circ}\text{C}$

Mechanical Specifications

Weight	0.07 lbs [31.75 g]
Connector Option	Field Replaceable
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: [500 mW P1dB, 2 GHz to 6 GHz, 22 dB Gain, 37 dBm IP3, 5.4 dB NF, SMA PE15A4041](#)



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Environmental Specifications

Temperature

Operating Range

-30 to +70 deg C

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

Not RoHS Compliant

REACH Compliant

12/17/2015

Plotted and Other Data

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.

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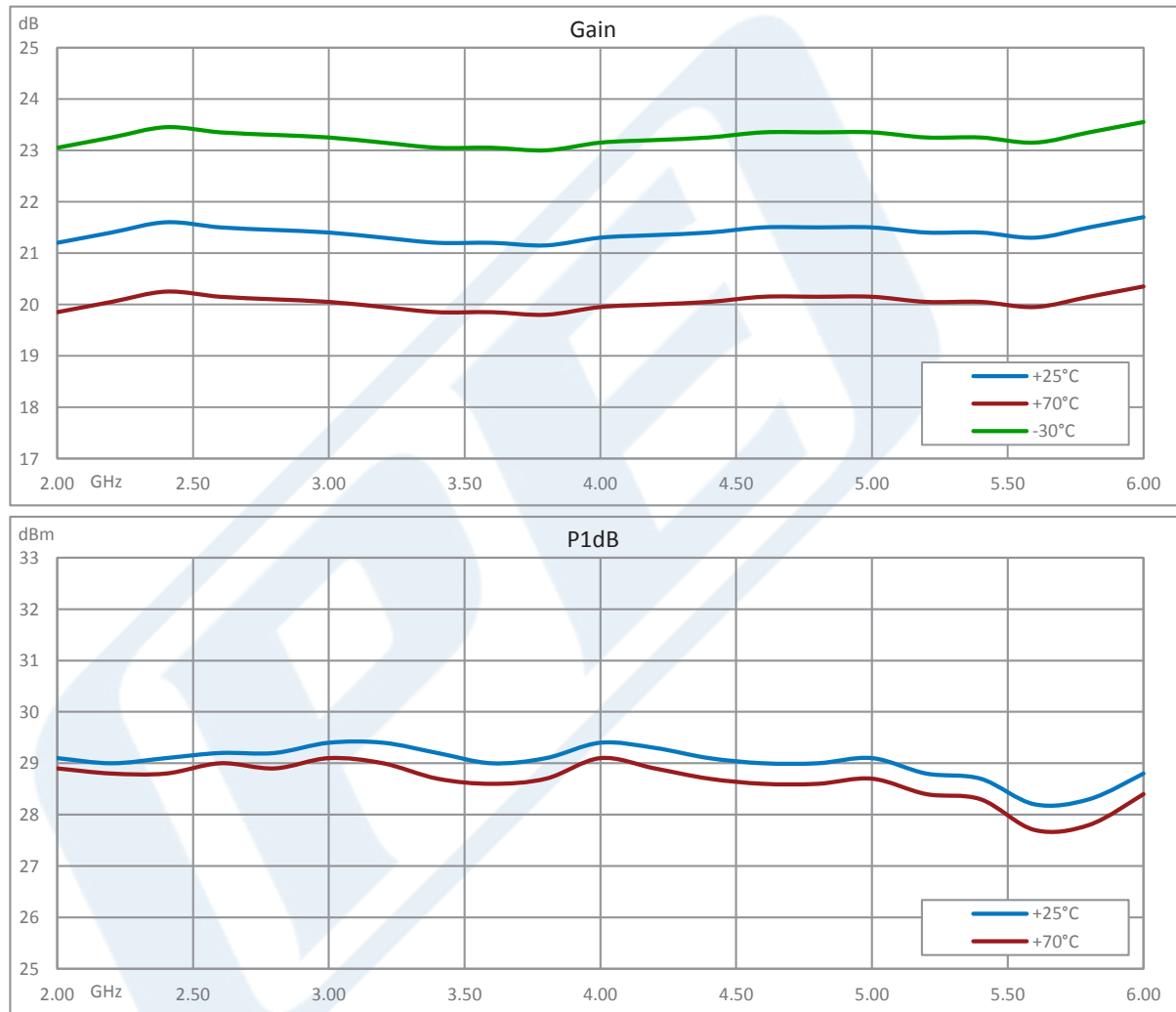


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Typical Performance Data



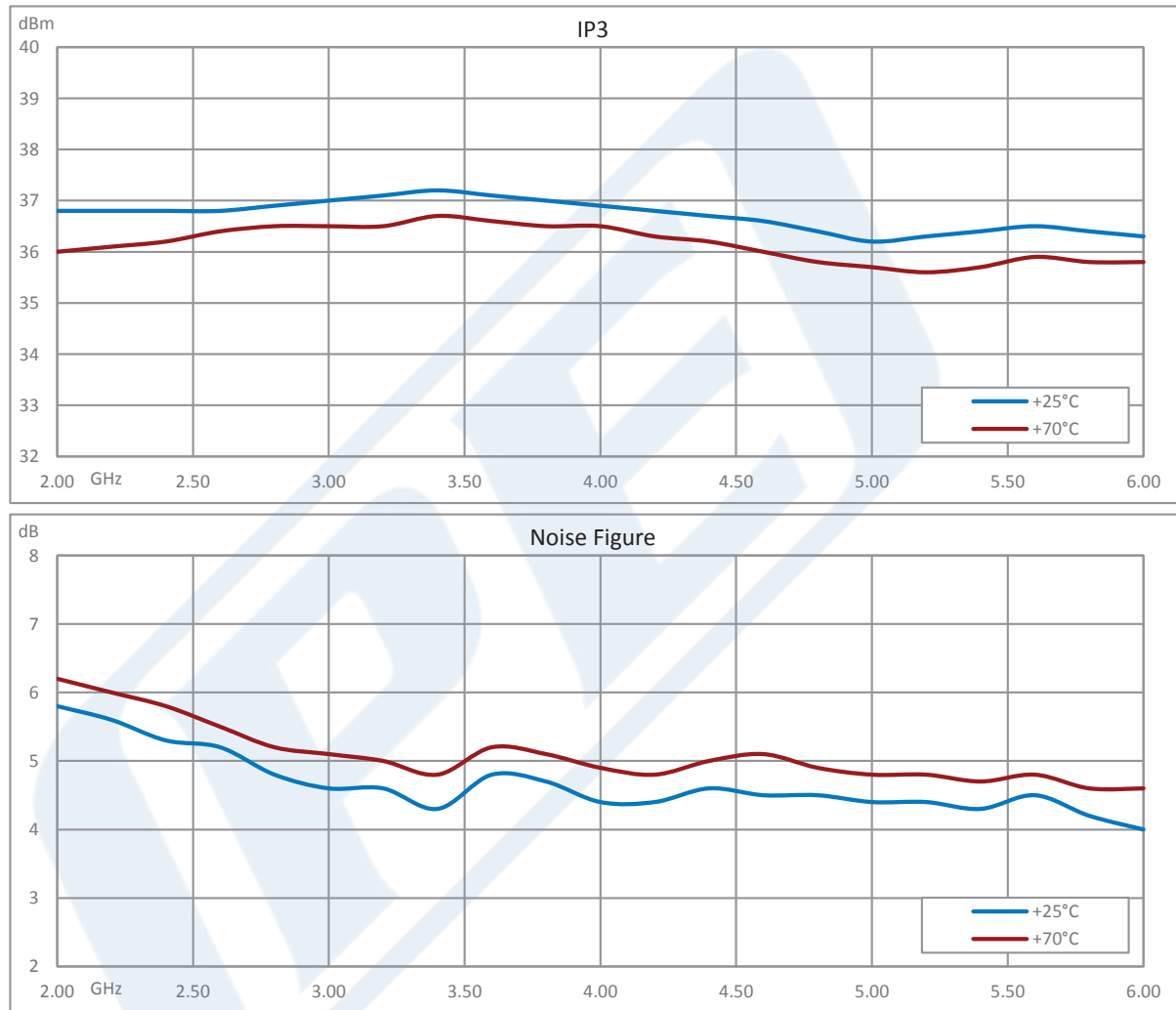
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500 mW P1dB, 2 GHz to 6 GHz, 22 dB Gain, 37 dBm IP3, 5.4 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

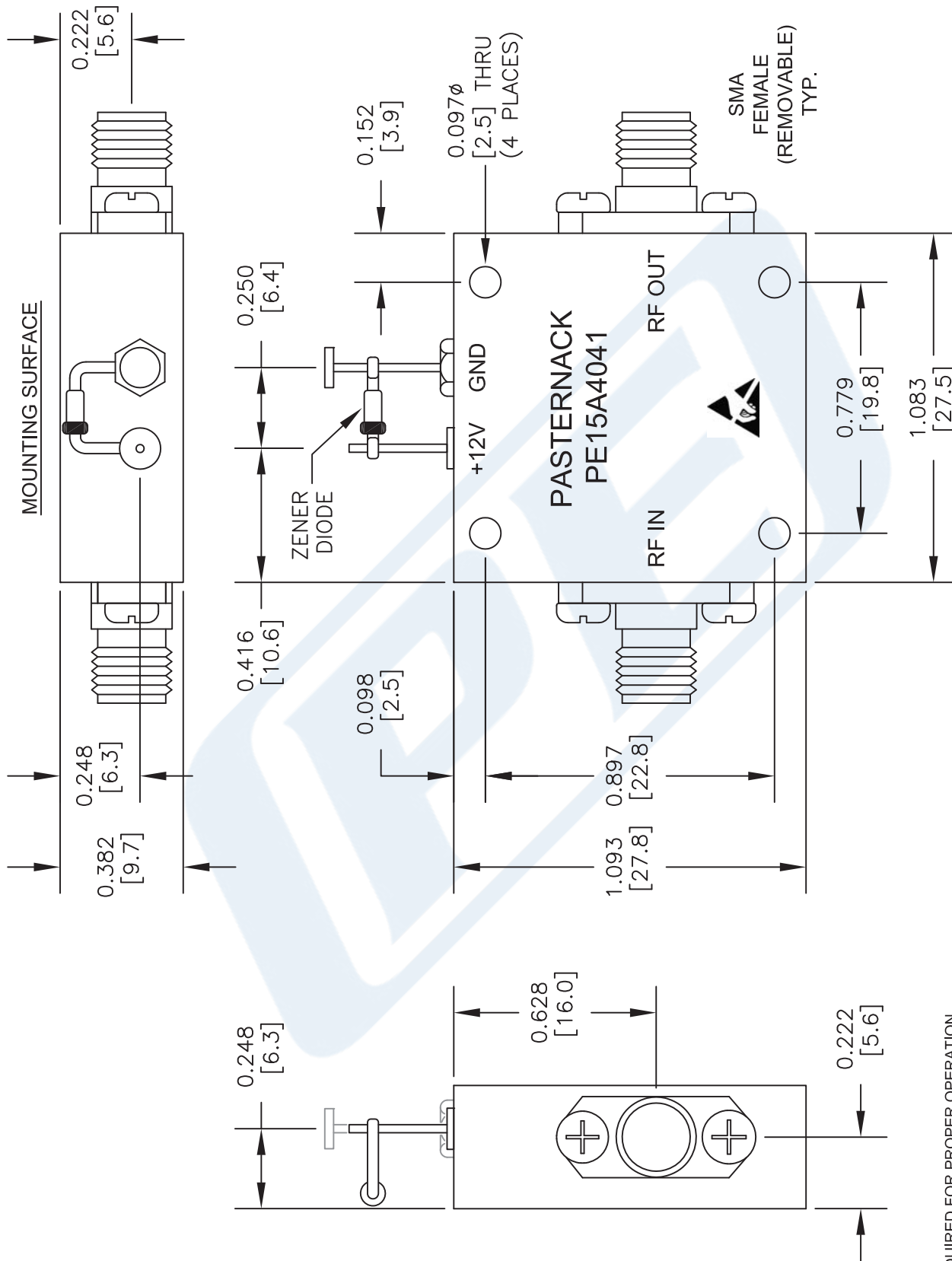
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PE15A4041 CAD Drawing

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

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THE ENGINEER'S RF SOURCE
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DWG TITLE

PE15A4041

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].

FSCM NO. 53919

CAD FILE 031616

SCALE N/A

SIZE A

2233