PASTERNACK®
THE ENGINEER'S RF SOURCE



2 Watt P1dB, 1 GHz to 2 GHz, Medium Power Amplifier, 35 dB Gain, 45 dBm IP3, 1.5 dB NF, SMA

TECHNICAL DATA SHEET PE15A4025

PE15A4025 is a L-band coaxial 2W high dynamic range power amplifier, operating in the 1 to 2 GHz frequency range and designed for low noise and high linearity applications. The amplifier offers 33 dBm of P1dB and high 35 dB small signal gain, with the excellent gain flatness of ±1.0 dB max, along with an outstanding IP3 performance of 45 dBm and 1.5 dB Noise Figure. This performance is achieved through using hybrid MIC design and advanced GaAs PHEMT devices. This power amplifier requires only a single positive DC supply, Unconditionally stable, and operates over the temperature range of -40°C to 75°C.

Features

- 1 GHz to 2 GHz Frequency Range
- P1dB: 33 dBm
- High Small Signal Gain: 35 dB
- Gain Flatness: ±0.75 dB
- Gain Variation: ±1.25 dB
- Output IP3: 45 dBm
- Noise Figure: 1.5 dB
- Reverse Isolation: 55 dB
- 50 Ohm Input and Output Matched
- -40 to +75°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

Applications

- Laboratory Applications
- R&D Labs
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Wireless Communications
- Microwave Radio Systems
- Power Amplifier
- Low Noise Amplifier
- High Dynamic Range Amplifier
- General Purpose Amplification

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts DC Current = 800mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	1		2	GHz
Small Signal Gain	32	35		dB
Gain Flatness		±0.75	±1	dB
Output at 1 dB Compression Point	+32	+33		dBm
Output 3rd Intercept Point	+40	+45		dBm
Reverse Isolation		55		dB
Noise Figure		1.5	2	dB
Input VSWR		1.5:1	1.7:1	
Output VSWR		1.5:1	1.7:1	
Operating DC Voltage	11.5	12	13	Volts
Operating DC Current		800	1,500	mA
Operating Temperature Range	-40		+75	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 2 Watt P1dB, 1 GHz to 2 GHz, Medium Power Amplifier, 35 dB Gain, 45 dBm IP3, 1.5 dB NF, SMA PE15A4025

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
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Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+10	dBm
Max Load VSWR	3:1	
Operating Temperature (base-plate)	-40 to +75	°C
Storage Temperature	-55 to +125	°C



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

Environmental Specifications

Temperature

Operating Range	-40 to +75 deg C
Storage Range	-55 to +125 deg C

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

RoHS Compliant

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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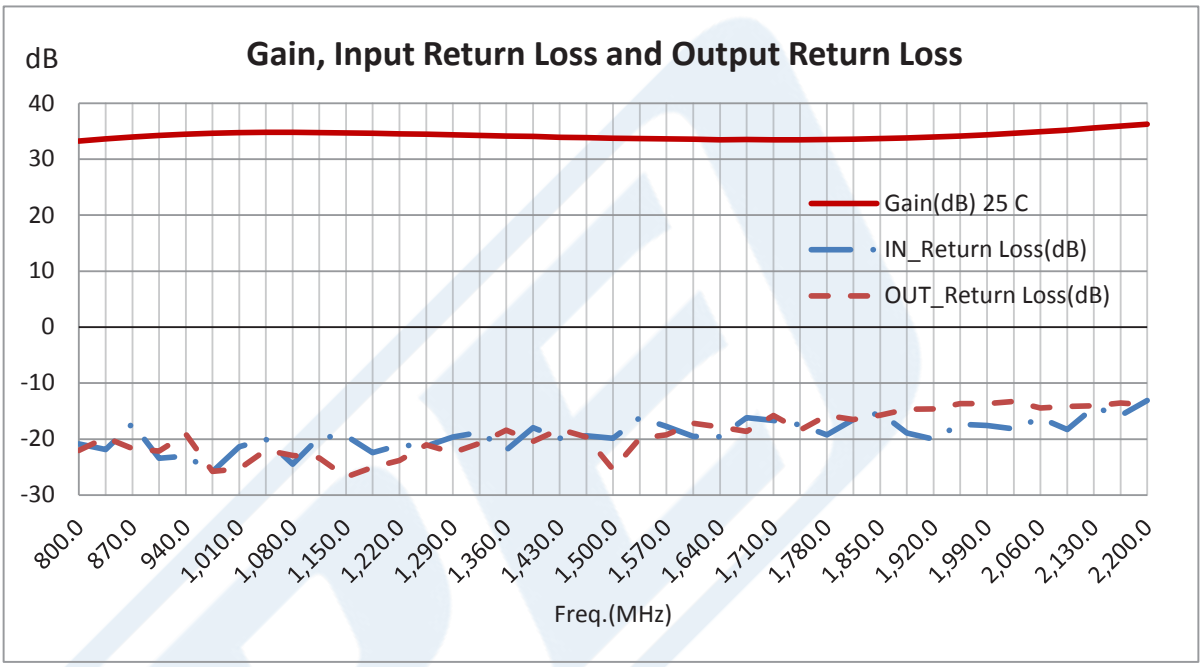
Power Data



2 Watt P1dB, 1 GHz to 2 GHz, Medium Power Amplifier, 35 dB Gain, 45 dBm IP3, 1.5 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% availability and are part of the broadest selection in the industry.

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URL: http://www.pasternack.com/2-ghz-medium-power-amplifier-35-db-gain-45-dbm-ip3-sma-pe15a4025-p.aspx

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PE15A4025 CAD Drawing

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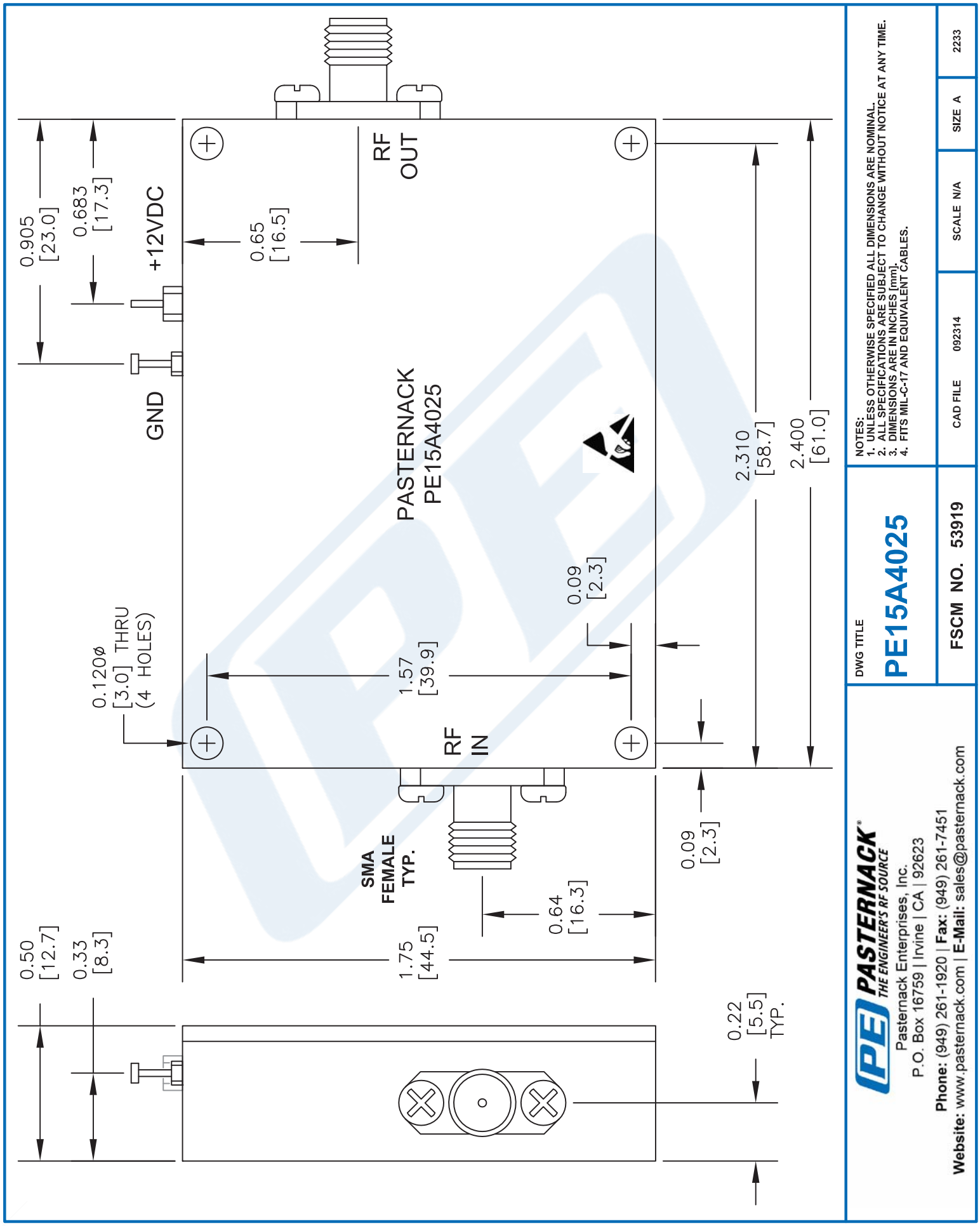

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