



1 Watt, 2 GHz to 6 GHz, Medium Power Broadband
Amplifier, 33 dB Gain, 39 dBm IP3, 5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4005

PE15A4005 is a 1W wideband coaxial power amplifier operating in the 2 to 6 GHz frequency range. The amplifier offers 30 dBm min of P1db and 33 dB small signal gain with the excellent gain flatness of ± 1.0 dB max and an outstanding output IP3 performance of 39 dBm. This performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of -55°C and +85°C.

Features

- 2 GHz to 6 GHz Frequency Range
- P1dB: 30 dBm min
- Small Signal Gain: 33 dB Typical
- Excellent Gain Flatness: ± 1.0 dB max
- High output IP3: 39 dBm
- Noise Figure: 5 dB
- Reverse Isolation: 50 dB
- 50 Ohms Input and Output Matched
- -55 to +85°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

Applications

- Electronic Warfare
- Electronic Countermeasures
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Microwave Radio Systems
- Driver Amplifier
- High Power Output Amplifier

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 1,000mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		6	GHz
Gain	31	33		dB
Small Signal Gain at OTR*	30			dB
Gain Flatness			± 1	dB
Output at 1 dB Compression Point	+30			dBm
Output 3 rd Intercept Point		+39		dBm
Reverse Isolation		50		dB
Noise Figure		5	5.5	dB
Noise Figure at OTR*			6	dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	11	12	15	Volts
Operating DC Current		1,000		mA
Operating Temperature Range (OTR)	-55		+85	°C

*OTR= Base Plate Operating Temperature Range

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1 Watt, 2 GHz to 6 GHz, Medium Power Broadband Amplifier, 33 dB Gain, 39 dBm IP3, 5 dB NF, SMA PE15A4005](#)

TECHNICAL DATA SHEET

PE15A4005

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-55 to +85	°C
Storage Temperature	-65 to +95	°C

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

Plotted and Other Data

- 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.

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered



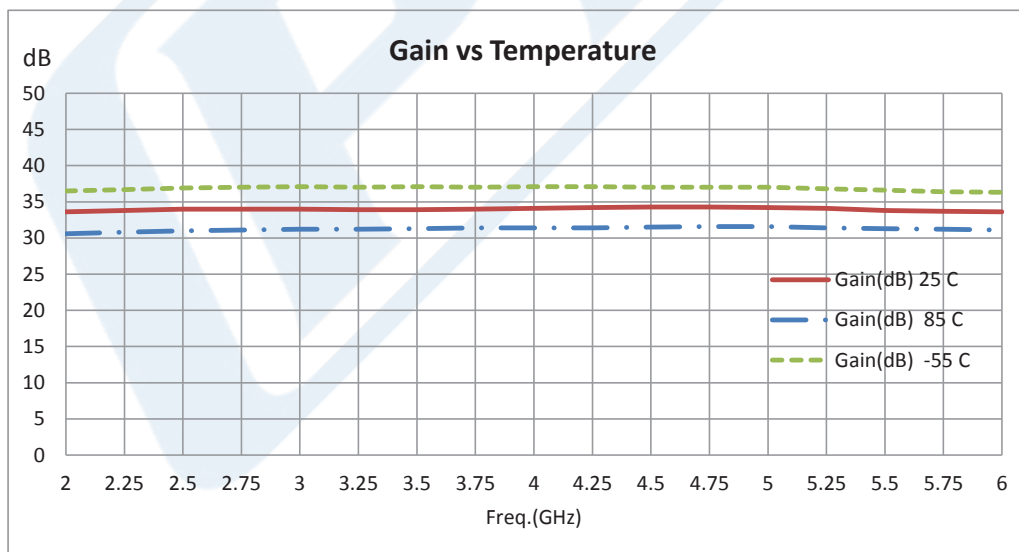
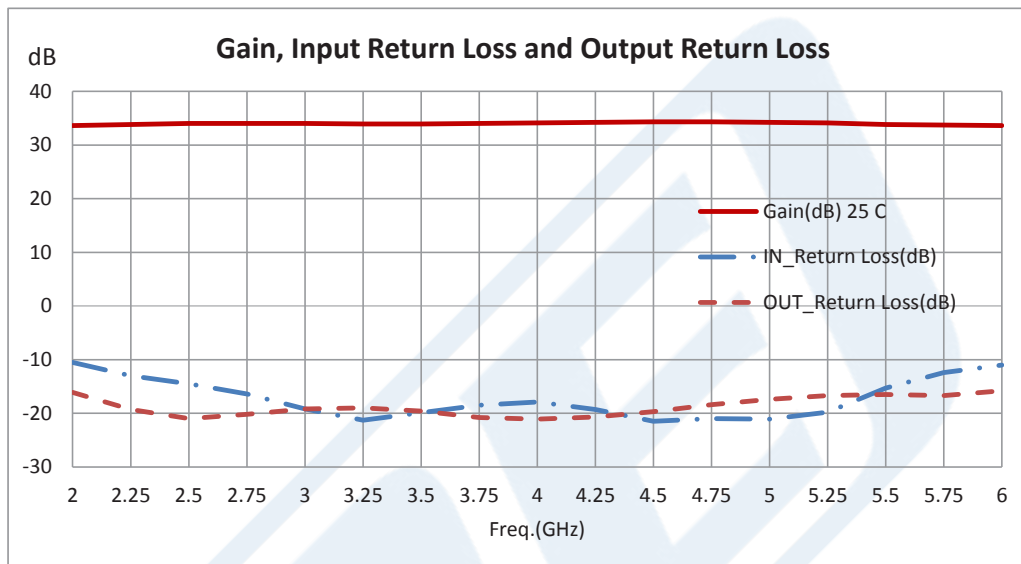


1 Watt, 2 GHz to 6 GHz, Medium Power Broadband
Amplifier, 33 dB Gain, 39 dBm IP3, 5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4005

Power Data



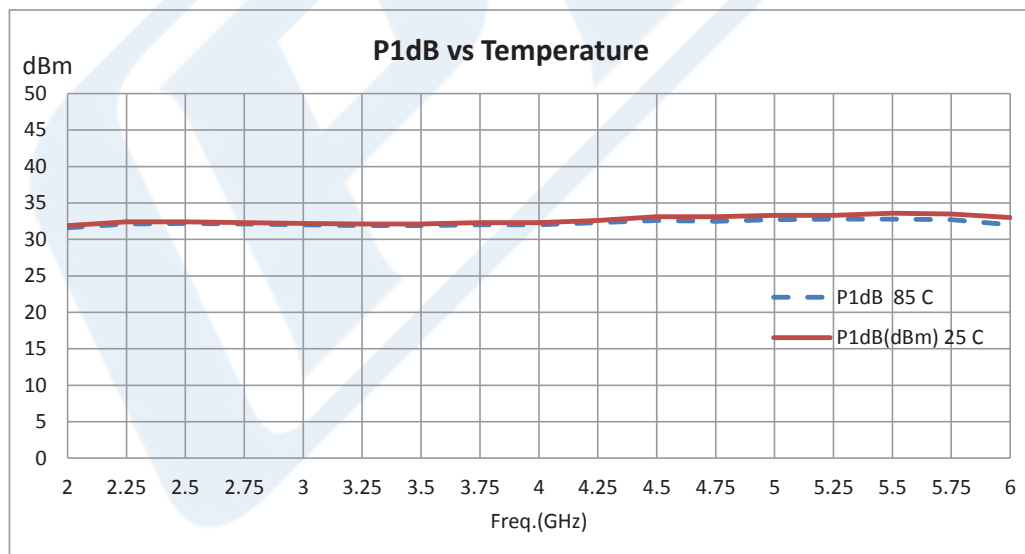
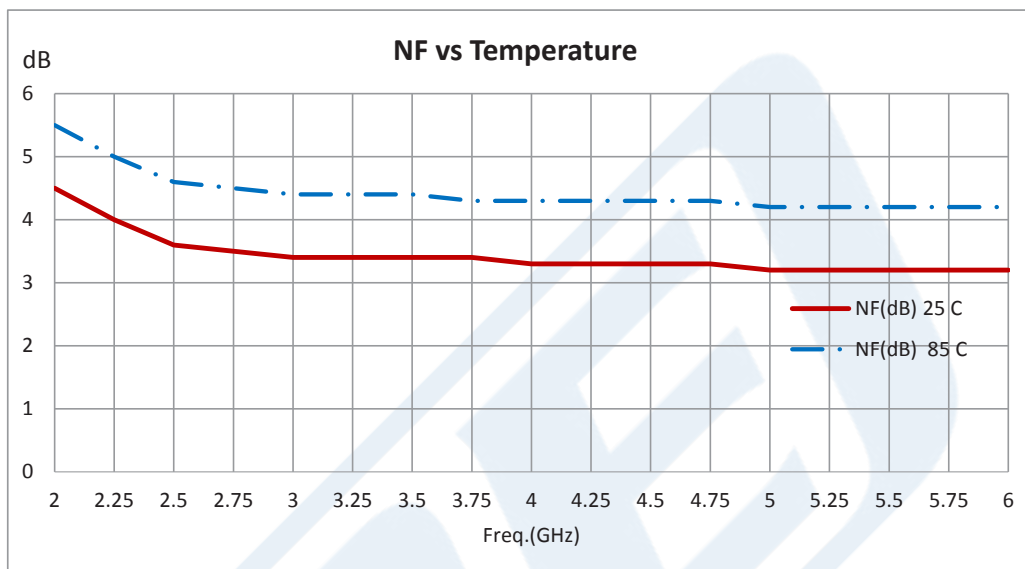
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1 Watt, 2 GHz to 6 GHz, Medium Power Broadband Amplifier, 33 dB Gain, 39 dBm IP3, 5 dB NF, SMA PE15A4005](#)



1 Watt, 2 GHz to 6 GHz, Medium Power Broadband
Amplifier, 33 dB Gain, 39 dBm IP3, 5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4005



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1 Watt, 2 GHz to 6 GHz, Medium Power Broadband Amplifier, 33 dB Gain, 39 dBm IP3, 5 dB NF, SMA PE15A4005](#)

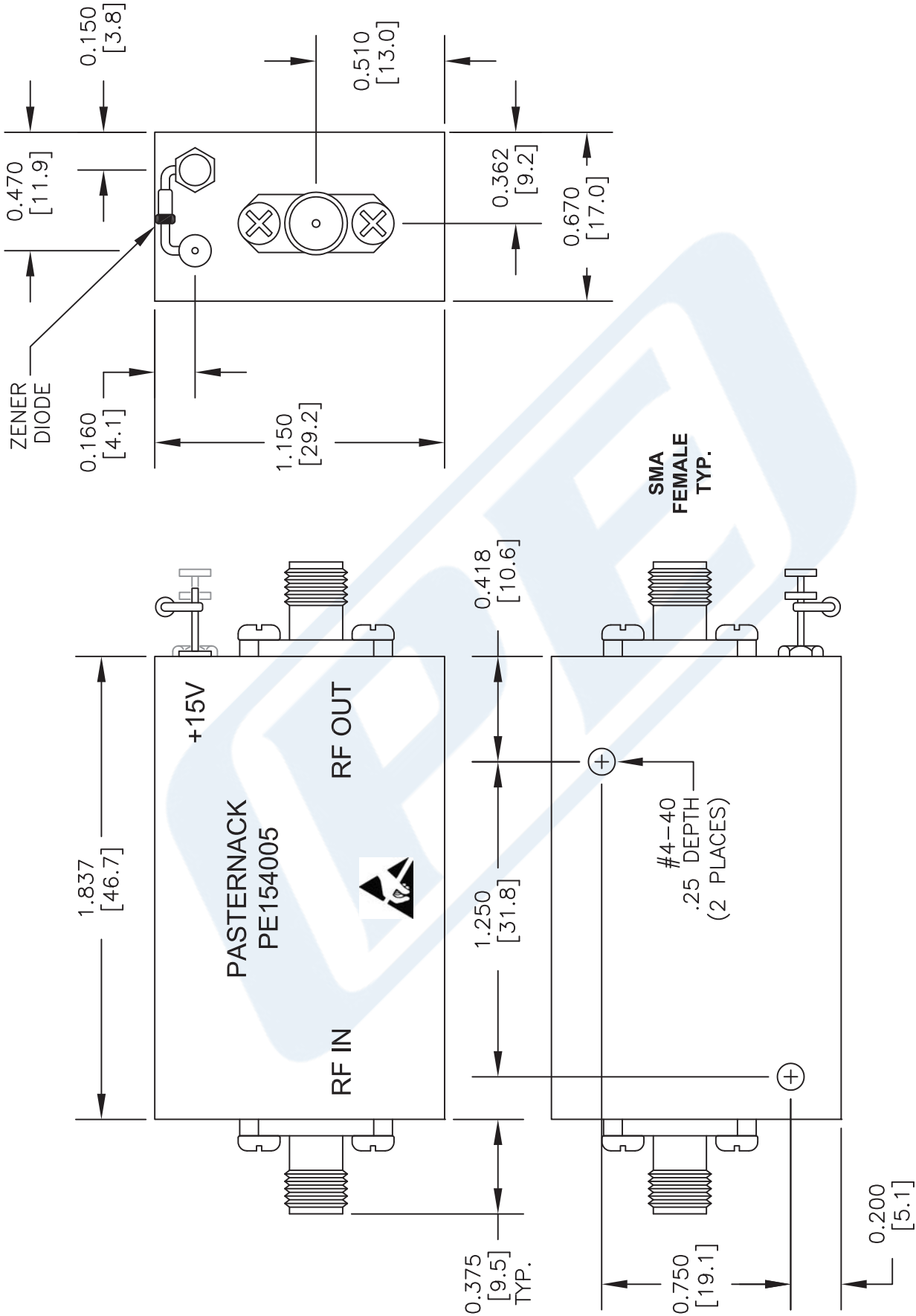
PE15A4005



UL
REGISTERED FIRM
PASTERNAK ENTERPRISES, INC.
CERTIFICATE NO. 1005857-0003
ISSUED: 01-01-2008

PE15A4005 CAD Drawing

1 Watt, 2 GHz to 6 GHz, Medium Power Broadband Amplifier,
33 dB Gain, 39 dBm IP3, 5 dB NF, SMA



DWG TITLE

PE15A4005

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

2233

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