



2.2 dB NF, 13 dBm Psat, 8 GHz to 12 GHz,
Low Noise Amplifier, 18 dB Gain, SMA

TECHNICAL DATA SHEET

PE15A1027

PE15A1027 is a X-band coaxial low noise amplifier operating in the 8 to 12 GHz frequency range. The amplifier offers 2.2 dB typical noise figure, 13 dBm minimum of saturated power and high 18 dB minimal small signal gain. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The low noise 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 -40°C and +85°C.

Features

- 8 GHz to 12 GHz Frequency Range
- Psat: 13 dBm min
- High Small Signal Gain: 18 dB min
- Noise Figure: 2.2 dB typ
- 50 Ohm Input and Output Matched
- -40 to 85°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

Applications

- Laboratory Applications
- R&D Labs
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Microwave Radio Systems
- Satellite Communications
- Low Noise Amplifier
- General Purpose Amplification
- Gain Block

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 150mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	8		12	GHz
Small Signal Gain	18			dB
Minimum Psat	+13			dBm
Noise Figure		2.2		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	11	12	13	Volts
Operating DC Current			150	mA
Operating Temperature Range	-40		+85	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.2 dB NF, 13 dBm Psat, 8 GHz to 12 GHz, Low Noise Amplifier, 18 dB Gain, SMA PE15A1027](#)



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Mechanical Specifications

Size

Length	1.083 in [27.51 mm]
Width	1.093 in [27.76 mm]
Height	0.382 in [9.7 mm]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
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Shock
Vibration

RTCA, DO-160C
RTCA, DO-160C

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

Not 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.



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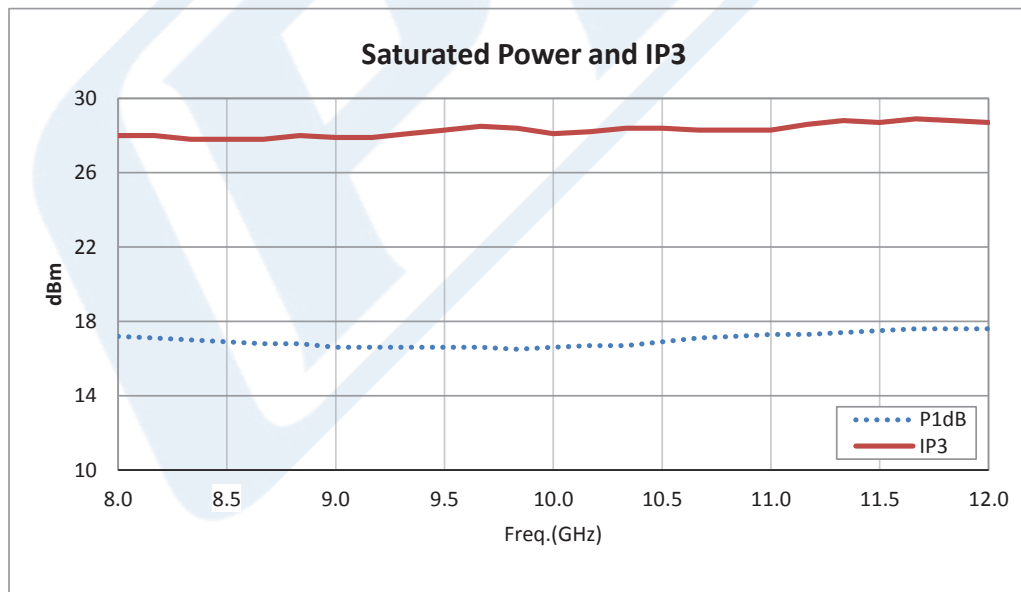
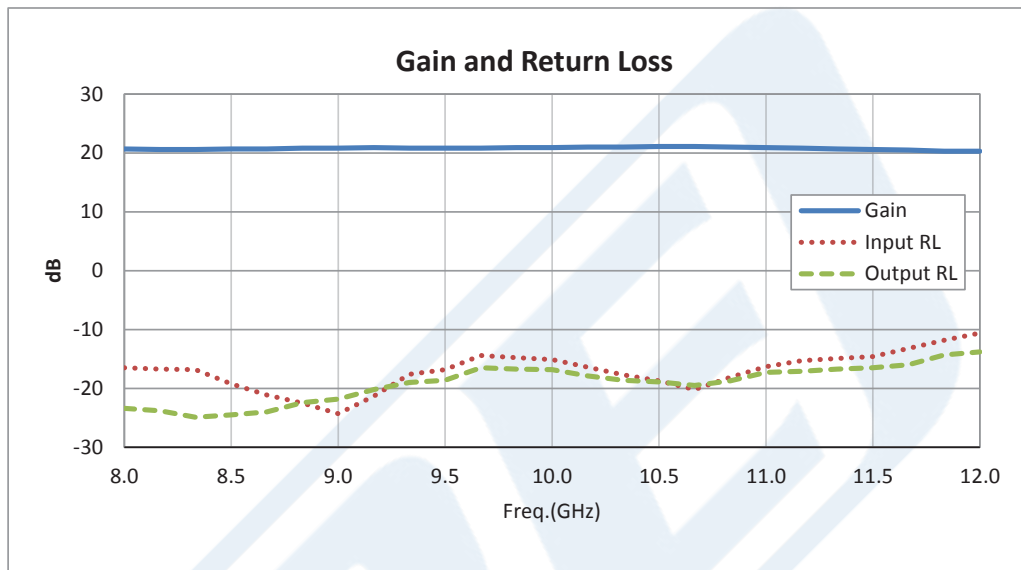


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Typical Performance Data



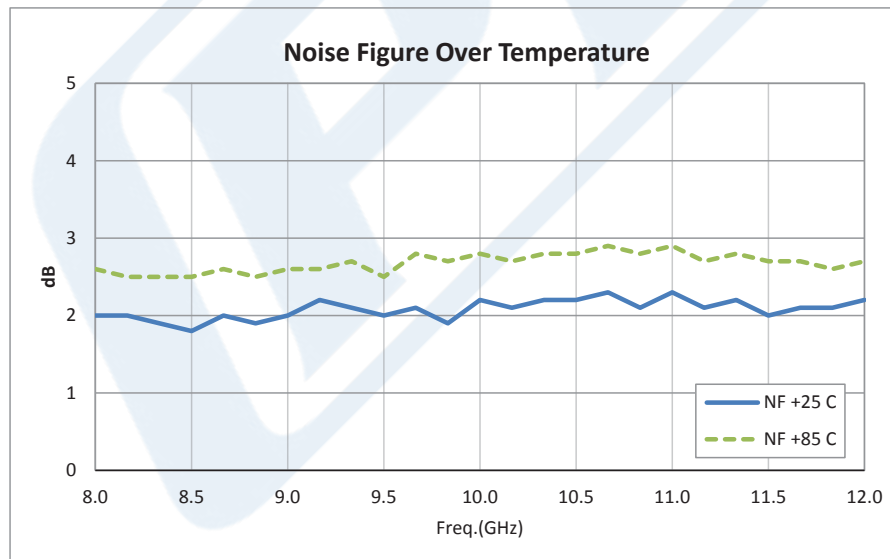
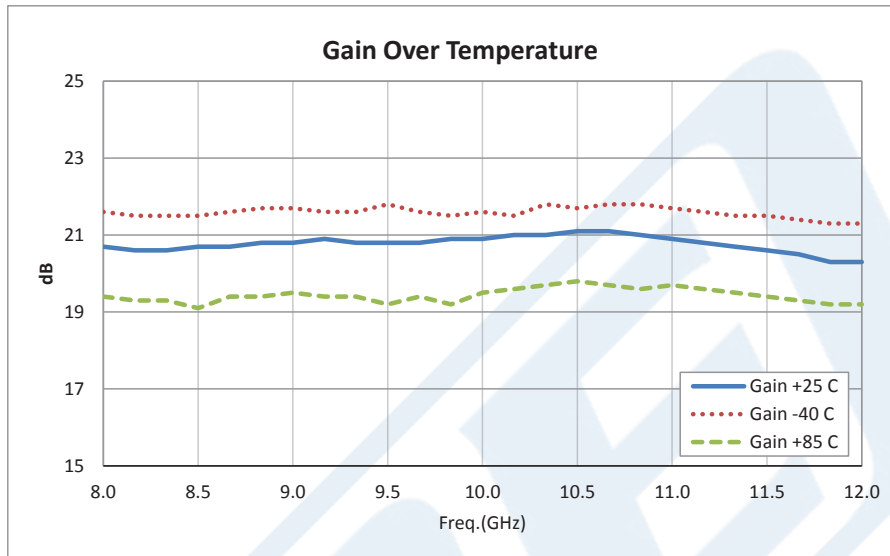
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2.2 dB NF, 13 dBm Psat, 8 GHz to 12 GHz, Low Noise Amplifier, 18 dB Gain, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

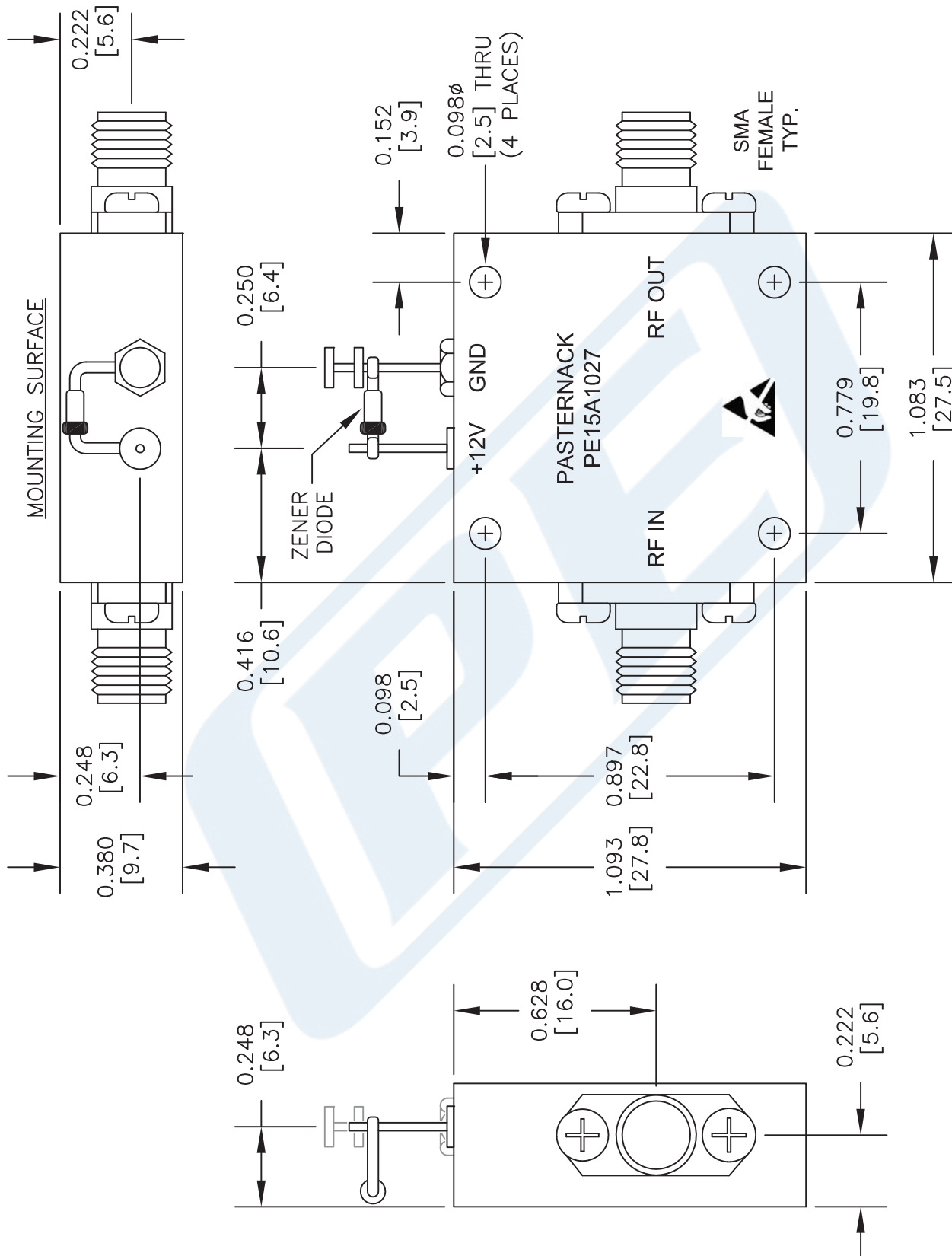
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DWG TITLE

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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].

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FSCM NO. 53919

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SIZE A

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