



1.5 dB NF, 10 dBm P1dB, 1.2 GHz to 1.4 GHz,
Low Noise Amplifier, 25 dB Gain, SMA

TECHNICAL DATA SHEET

PE15A1023

PE15A1023 is an L-band high gain low noise coaxial amplifier operating in the 1.2 to 1.4 GHz frequency range. The low noise amplifier offers 10 dBm min of P1dB and 25 dB typical small signal gain with gain flatness of ± 0.75 dB typical. This excellent 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. The amplifier operates over the temperature range of -40°C and $+75^{\circ}\text{C}$.

Features

- 1.2 GHz to 1.4 GHz Frequency Range
- P1dB: 10 dBm min
- Small Signal Gain: 25 dB min
- Gain Flatness: ± 0.75 dB typical
- Noise Figure: 1.5 dB typ
- 50 Ohm Input and Output Matched
- Unconditionally Stable
- Regulated Supply & Bias Sequencing

Applications

- L-band Military Radar
- Commercial Air Traffic Control
- Weather & Earth Observation Satellites
- Radar & Communication Systems
- High Gain Low Noise Amplifier

Electrical Specifications (TA = $+25^{\circ}\text{C}$, DC Voltage = 12Volts, DC Current = 150mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	1.2		1.4	GHz
Small Signal Gain	25			dB
Gain Flatness		± 0.75	± 1	dB
Output at 1 dB Compression Point	+10			dBm
Noise Figure		1.5		dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	10.8	12	13.2	Volts
Operating DC Current		150		mA
Operating Temperature Range	-40		+75	$^{\circ}\text{C}$

Mechanical Specifications

Size	
Length	2.32 in [58.93 mm]
Width	2.32 in [58.93 mm]
Height	0.71 in [18.03 mm]
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: [1.5 dB NF, 10 dBm P1dB, 1.2 GHz to 1.4 GHz, Low Noise Amplifier, 25 dB Gain, SMA PE15A1023](#)



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Environmental Specifications

Temperature

Operating Range

-40 to +75 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.



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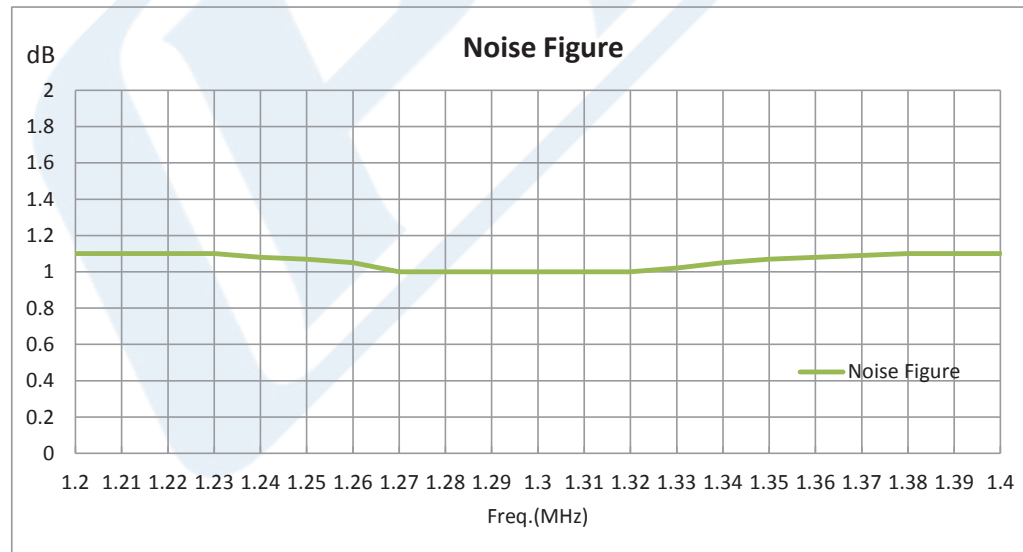
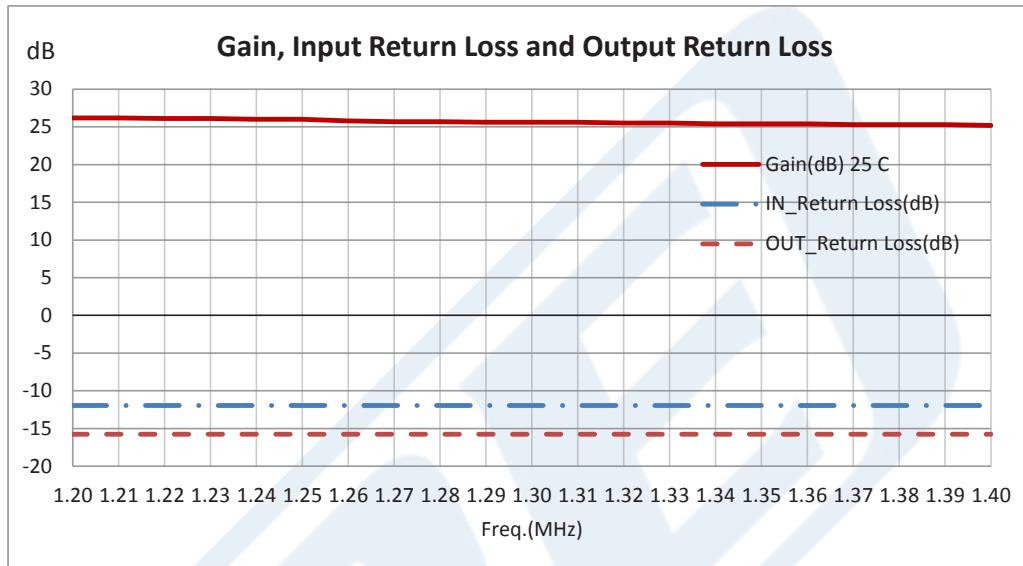


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Typical Performance Data



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1.5 dB NF, 10 dBm P1dB, 1.2 GHz to 1.4 GHz, Low Noise Amplifier, 25 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.

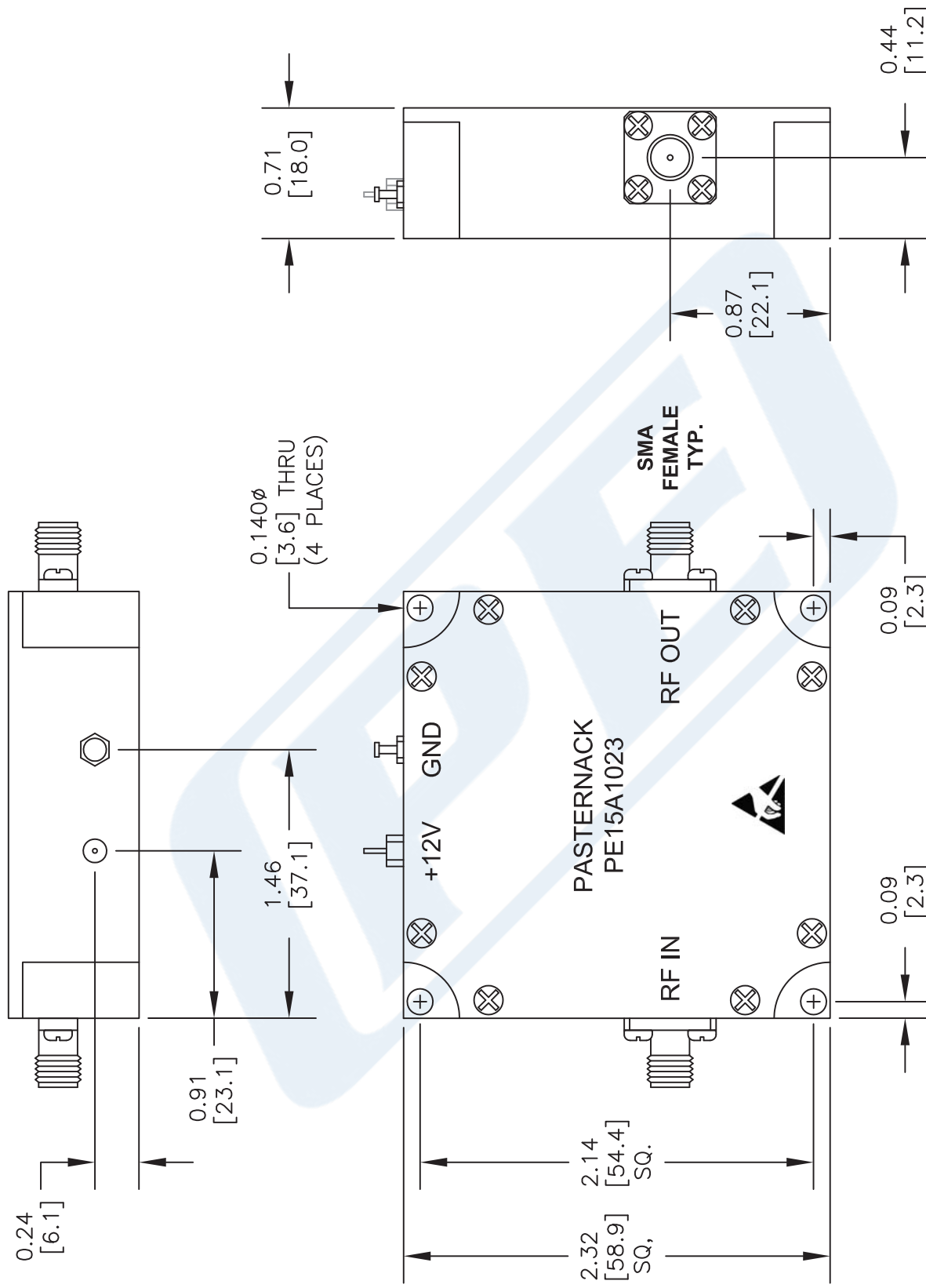
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PE15A1023 CAD Drawing

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

DWG TITLE

PE15A1023

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

CAD FILE 021715

SCALE N/A

SIZE A

2233