PASTERNACK®
THE ENGINEER'S RF SOURCE

3 dB NF, 14 dBm P1dB, 2 GHz to 18 GHz, Low Noise Broadband Amplifier, 26 dB Gain, 24 dBm IP3, SMA

TECHNICAL DATA SHEET PE15A3257

PE15A3257 is a broadband high gain GaAs PHEMT MMIC-based coaxial low noise amplifier, operating in the 2 to 18 GHz frequency range. The amplifier offers 14 dBm of P1dB and 26 dB small signal gain, with the gain flatness of ±2.0 dB, along with 24 dBm pf IP3 performance. This low noise amplifier requires only a single positive DC supply, unconditionally stable, operates over the temperature range of -40°C to 85°C, and characterized by a light weight (25 g) and small size (1.2"x1.0"x0.4").

Features

- 2 to 18 GHz Frequency Range
- P1dB: 14 dBm
- Small Signal Gain: 26 dB
- Gain Flatness: ±2.0 dB
- Gain Variation Over the Temperature Range: ±1.5 dB
- P1dB: 14 dBm
- IP3: 24 dBm
- Noise Figure: 3 dB typ
- 50 Ohm Input and Output Matched
- -40 to +85°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator
- Small Size & Light Weight

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
- General Purpose Amplification
- RF Front Ends

Electrical Specifications (TA= 25°C, VDC1 = 12 Vdc)

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		18	GHz
Gain	23	26	30.5	dB
Gain Flatness		±2	±2.5	dB
Gain Variance at OTR*		±1.5		dB
Output at 1 dB Compression Point	+12	+14		dBm
Input Power			+15	dBm
Output 3rd Intercept Point	+20	+24		dBm
Reverse Isolation	30	40		dB
Spurious			-70	dBc
Noise Figure		3	5	dB
Input VSWR		1.8:1	2.5:1	
Output VSWR		1.8:1	2.8:1	
Operating DC Voltage 1	11	12	15	Volts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 3 dB NF, 14 dBm P1dB, 2 GHz to 18 GHz, Low Noise Broadband Amplifier, 26 dB Gain, 24 dBm IP3, SMA PE15A3257

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

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Operating DC Current	120	150	180	mA
Operating Temperature Range (OTR)	-40		+85	°C

*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-40 to +85	°C
Storage Temperature	-55 to +125	°C

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

Mechanical Specifications

Size

Length	1.5 in [38.1 mm]
Width	0.85 in [21.59 mm]
Height	0.375 in [9.53 mm]
Weight	0.055 lbs [24.95 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +85 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

- Values at +25 °C, sea level
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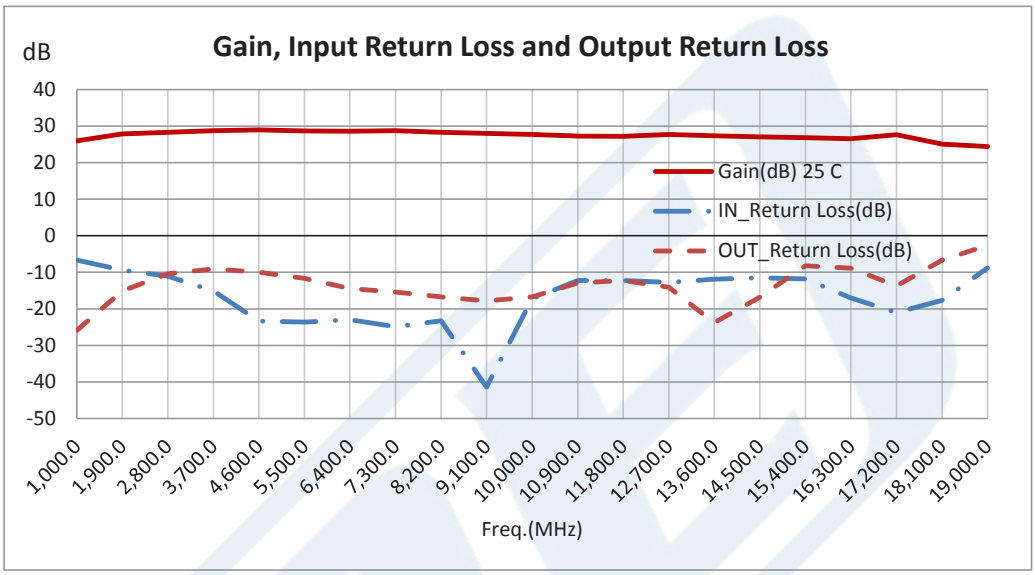
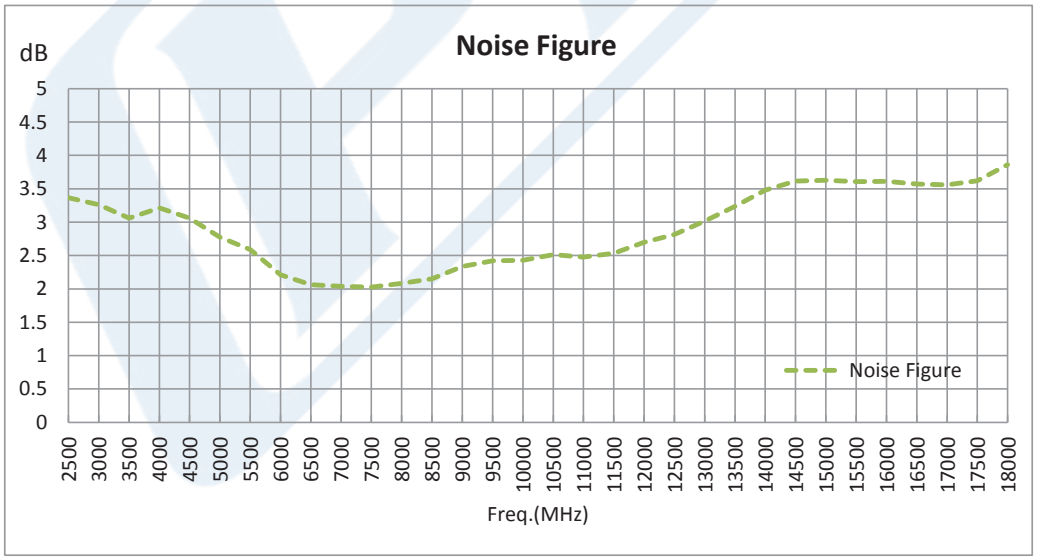
Typical Performance Data





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3 dB NF, 14 dBm P1dB, 2 GHz to 18 GHz, Low Noise Broadband Amplifier, 26 dB Gain, 24 dBm IP3, 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: https://www.pasternack.com/5-db-18-ghz-low-noise-broadband-amplifier-26-db-gain-sma-pe15a3257-p.aspx

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PE15A3257 CAD Drawing

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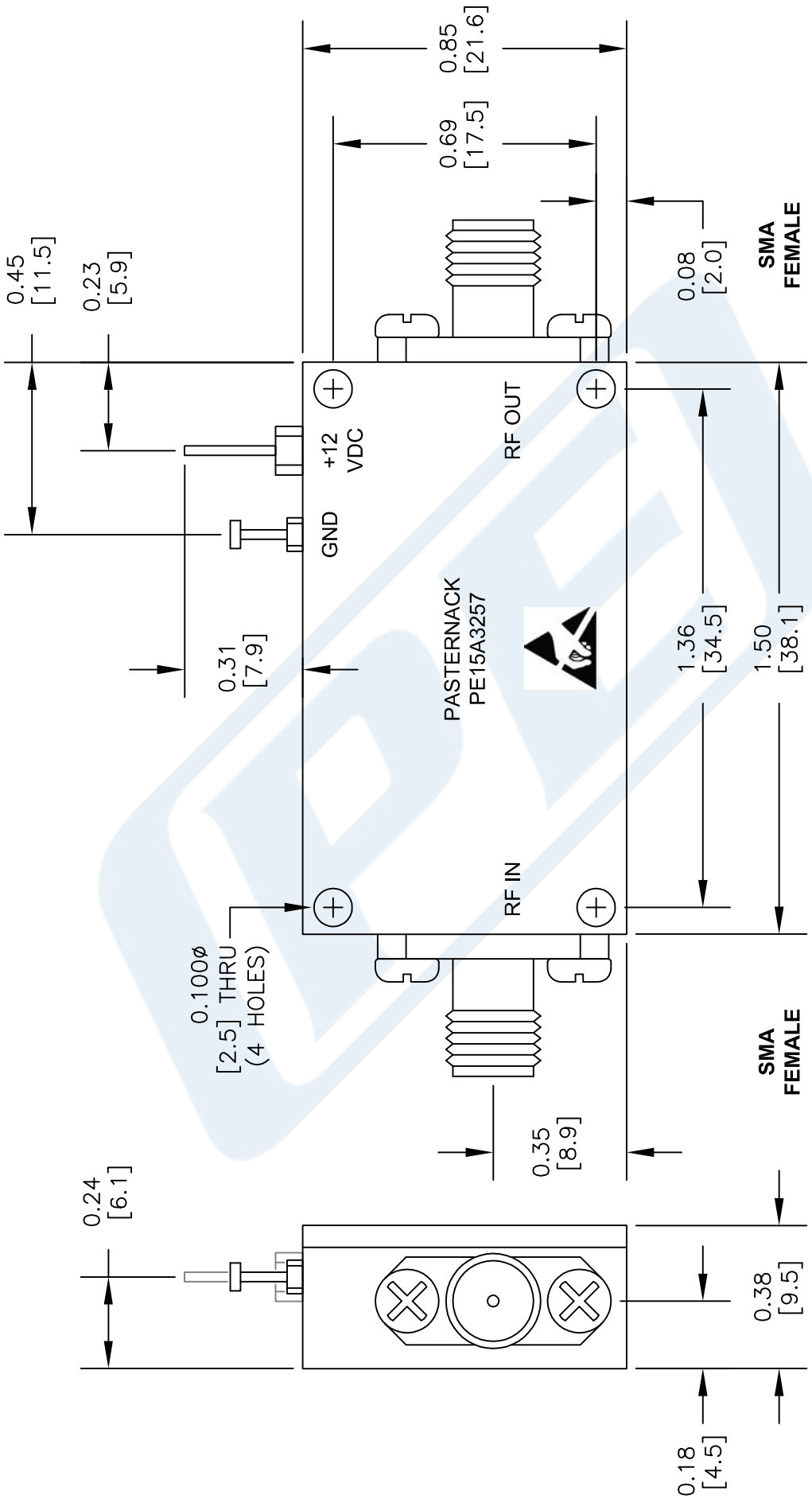

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

CAD FILE	011414	SCALE N/A	SIZE A	2233

DWG TITLE **PE15A3257**

FSCM NO. 53919

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