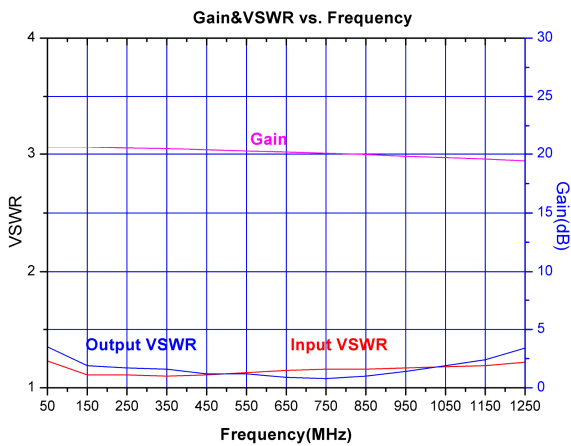


### PRODUCT DESCRIPTION

F226 is intended for use in applications requiring high linearity, such as Cellular Telephone Base Station Driver Amplifiers, CATV Fiber Receiver and Distribution Amplifiers, and CATV Drop Amplifiers.

F226 is RoHS compliant and offered in SOT89 lead free package.



**F226**



RoHS Compliant & Green Package

**Linear Amplifier**



### Product Features

- High Linearity: +35dBm OIP3
- Wide Bandwidth: 50—1000MHz
- Low Distortion
- Low Noise: 2.2dB
- SOT89 Package
- Lead Free, RoHS Compliant

### Applications

- PA Driver Amplifiers
- CATV Fiber Receiver and Distribution Amplifiers
- CATV Drop Amplifiers

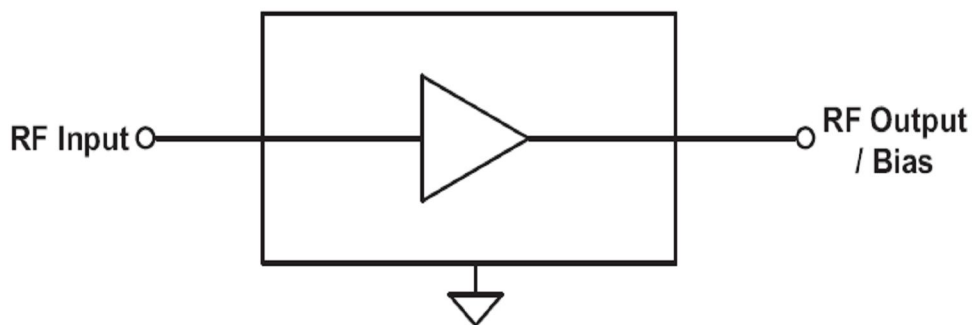


Figure 1: Block Diagram

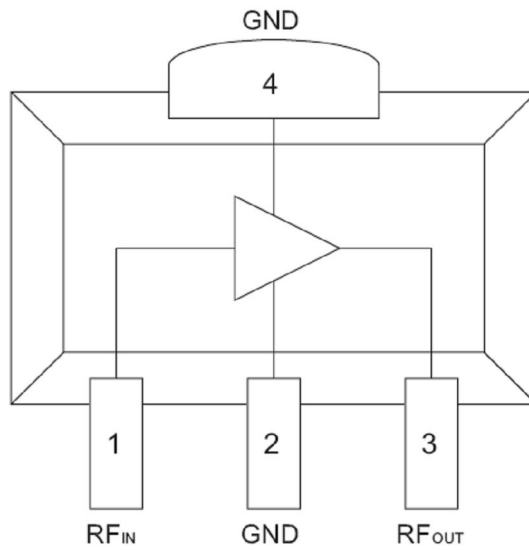


Figure 2: Pinout – SOT-89 Package

Table 1: Pin Description

PIN	NAME	DESCRIPTION
1	RFin	RF Input
2	GND	Ground
3	RFout	RF Output/Bias
4	GND	Ground

## ELECTRICAL CHARACTERISTICS

Table 2: Absolute Minimum and Maximum Ratings

PARAMETER	MIN	MAX	UNIT
Supply	0	+12	V
RF Power at Input	-	+10	dBm
Storage Temperature	-65	+150	°C

Stresses in excess of the absolute ratings may cause permanent damage.

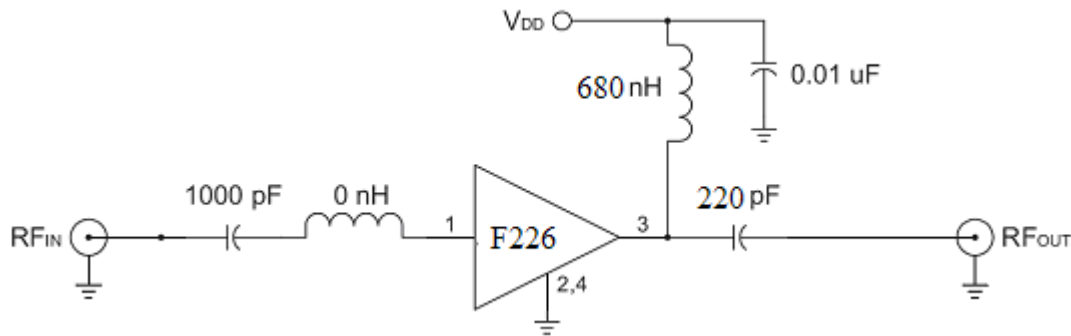
Table 3: Operating Ranges

PARAMETER	MIN	TYP	MAX	UNIT
RF Input/Output Frequency	50	-	1000	MHz
Supply Voltage (Vdd)	-	8	-	V
Case Temperature	-40	-	+85	°C

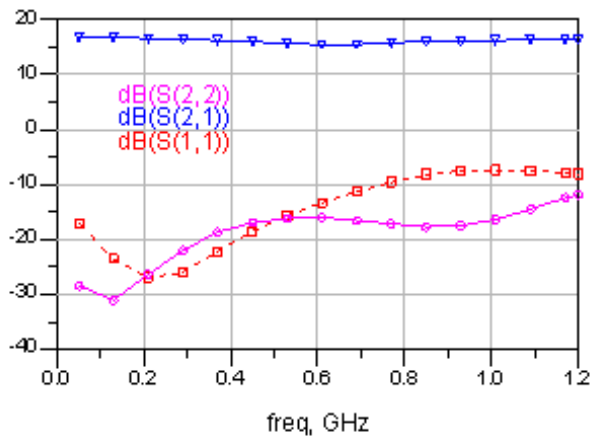
**Table 4: Electrical Specifications**

( $T_A=+25^{\circ}\text{C}$ ,  $V_{DD}=+8\text{VDC}$ ,  $75\ \Omega$  system, see figure 3)

PARAMETER	MIN	TYP	MAX	UNIT
CSO	-	-60	-	dBc
CTB	-	-72	-	dBc
Gain	-	16	-	dB
Noise Figure	-	2.3	-	dB
IIP2	-	41	-	dBm
IIP3	-	22	-	dBm
Current Consumption	-	150	-	mA



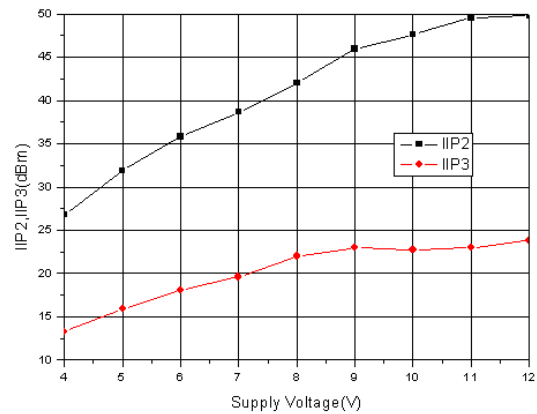
**PERFORMANCE DATA**



**Figure 4**

**Gain I/O Return Loss vs Frequency**

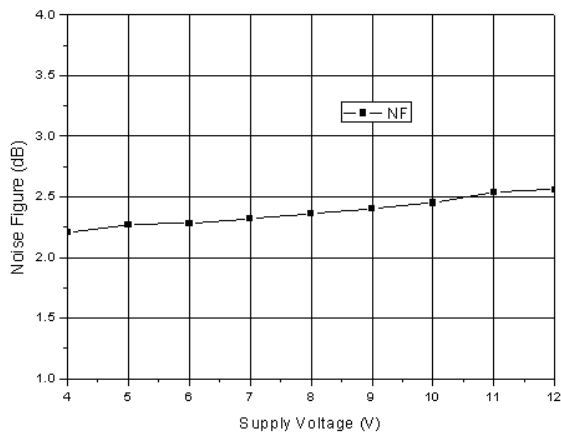
( $T_A=+25^{\circ}\text{C}$ ,  $V_{DD}=+8\text{ v}$ ,  $75\ \Omega$  system)



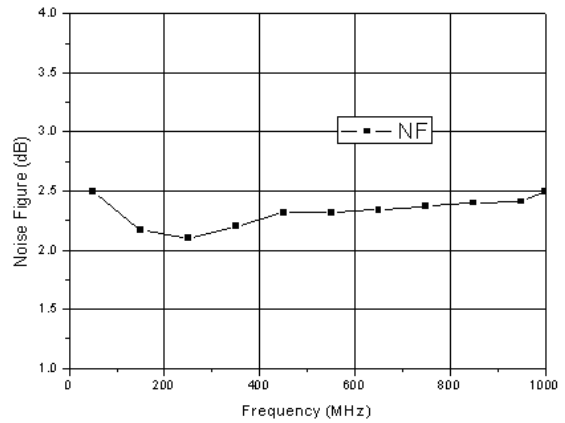
**Figure 5**

**IIP2, IIP3 vs Supply Voltage**

( $T_A=+25^{\circ}\text{C}$ ,  $V_{DD}=+8\text{ v}$ ,  $50\ \Omega$  system)



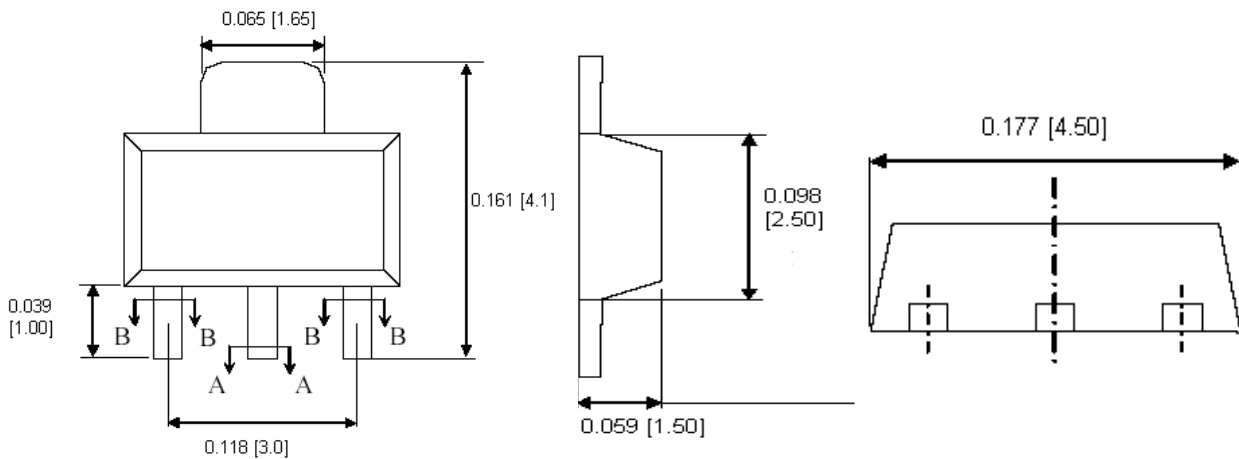
**Figure 6 Noise Figure vs Supply Voltage**  
 (T<sub>A</sub>=+25°C, V<sub>DD</sub>=+8 v, 50 Ω system)



**Figure 7 Noise Figure vs Frequency**  
 (T<sub>A</sub>=+25°C, V<sub>DD</sub>=+8 v, 50 Ω system)

**SOT89 Packaging and PCB Pad Layout**

Units: inch [millimeter]



Symbol	inch	millimeter
A	0.016	0.42
B	0.019	0.5