

# AM1025 - Amplifier

## 20MHz - 3.0GHz Gain Block

**Not Recommended for New Designs.**  
**See AM1025B For Replacement Device**

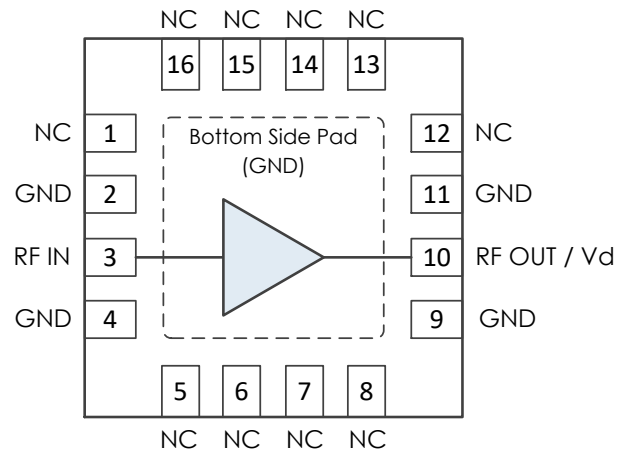


AM1025 is a high dynamic range cascadable gain block covering the 20 MHz to 3.0 GHz frequency range. The device exhibits high P1dB, high third order intercept performance and low noise figure while also providing excellent gain stability over the operating temperature range.

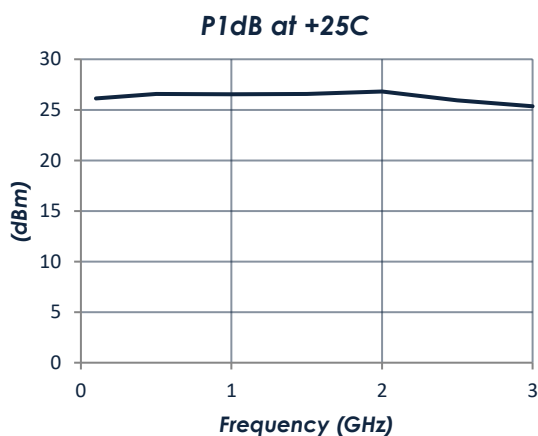
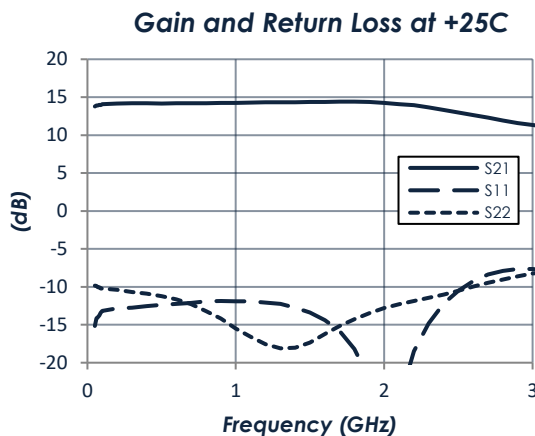
### Features

- 14 dB Gain
- 3.0 dB Noise Figure
- +26 dBm P1dB
- +40 dBm OIP3
- +8.0V, 165 mA Supply
- 3mm QFN Package
- -40C to +85C Operation
- Unconditionally Stable

### Functional Diagram



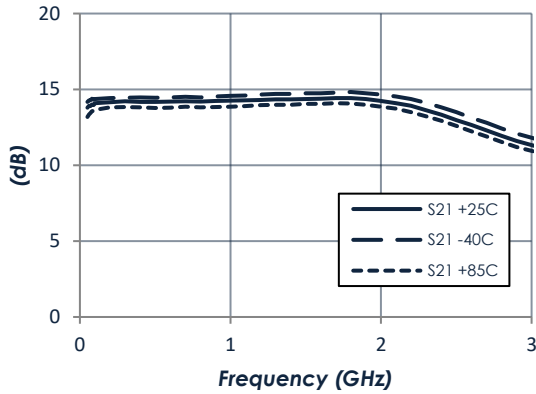
### Performance (at +7.5V device voltage, Vd)



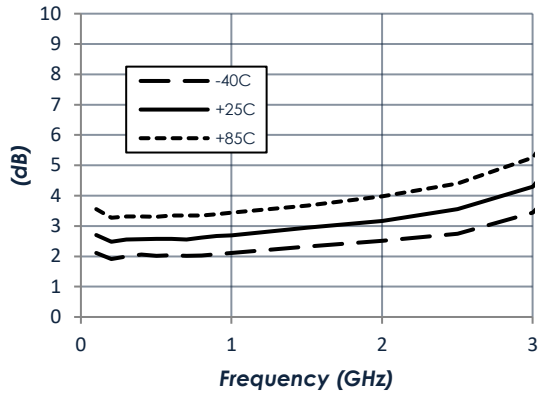
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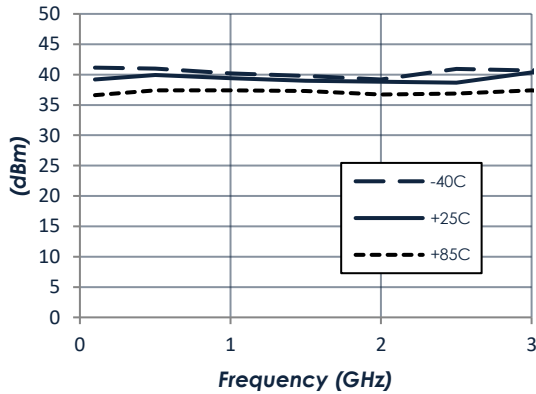
**Gain vs Temperature**



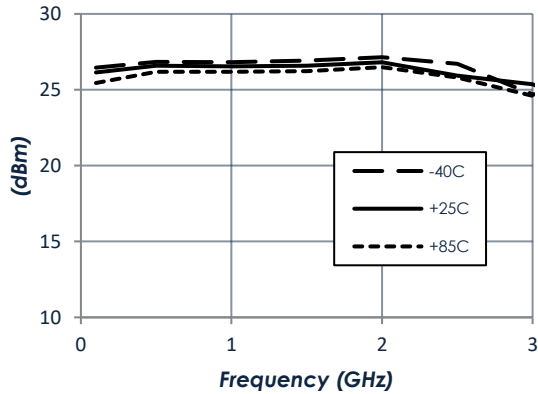
**Noise Figure vs Temperature**



**Output IP3 vs Temperature**



**P1dB vs Temperature**

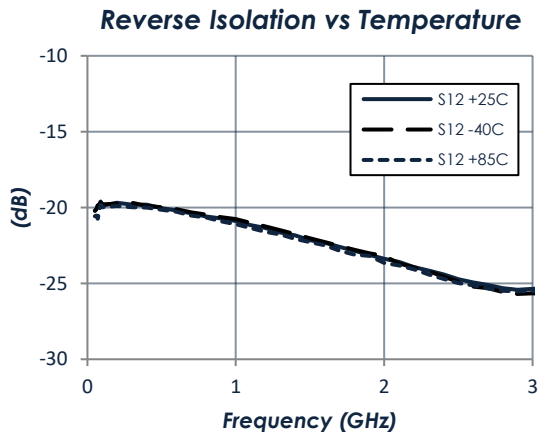




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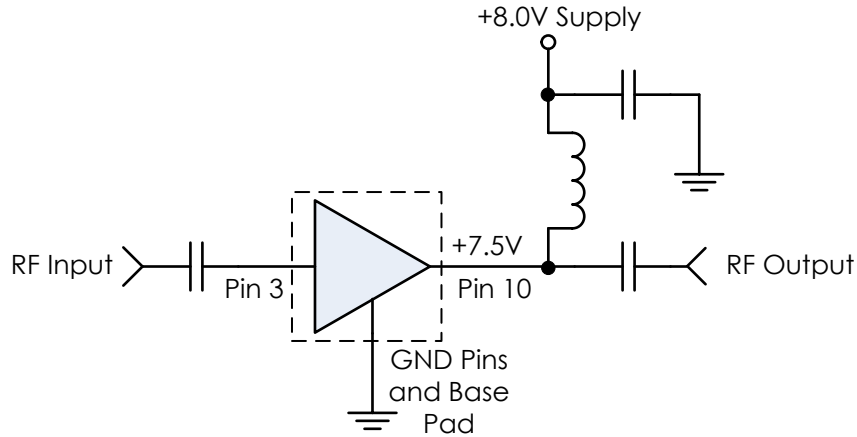
### Additional Specifications

Current at +7.5V Device Voltage (Vd)	165 mA typ, 155 mA to 175 mA max
Device Voltage (Vd)	+7.0V to +8.4V
Maximum RF Input	+20 dBm
Operating Temperature Range	-40C to +85C
Storage Temperature Range	-50C to +125C

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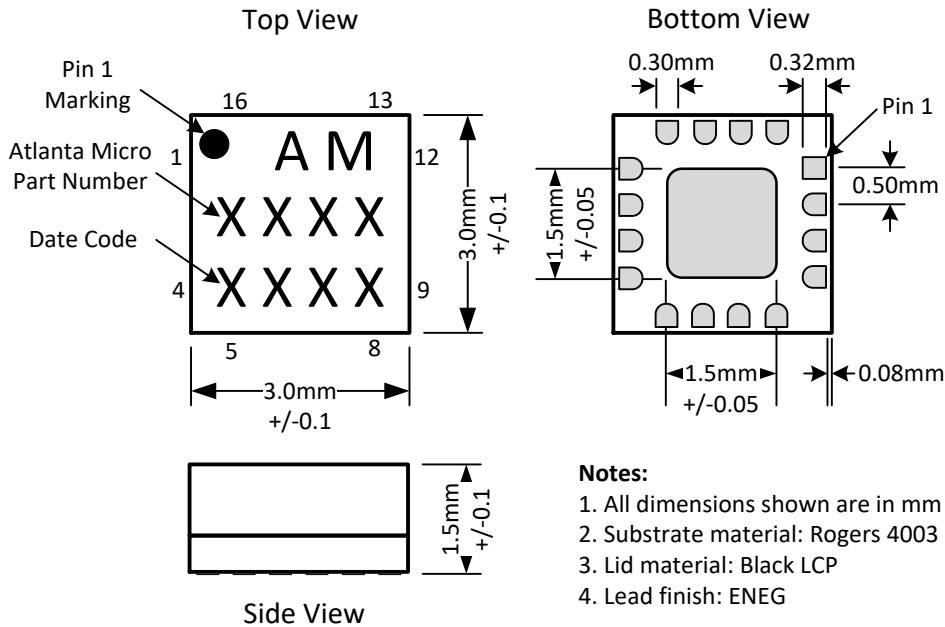
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### Typical Application Circuit



\*External DC blocking capacitors and RF choke are required. Select values for the frequency range of interest. No input or output matching is required. NC pins may be left open or connected to ground.

### Package Details



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## 20MHz - 3.0GHz Gain Block

### Evaluation PC Board

**+8.0V Supply**  
(+V on center pin, Ground on shield)



External DC blocking capacitors and RF choke are included.