

## DESCRIPTION

AM000551SF-2H is a Broadband High Power Amplifier designed for high power RF applications. It operates from 30MHz to 500MHz and typically delivers 51dBm CW output power and 28dB small signal gain. The amplifier module has an Aluminum heat-sink attachment.

## FEATURES

- Broadband design from 30 to 500MHz
- High Gain and High Power,  $P_{SAT} = 51\text{dBm}$ , Gain = 28dB
- +28VDC Single Bias.

## APPLICATIONS

- TV, FM Broadcasting
- Broadband Radio
- Test Bench Amplifier

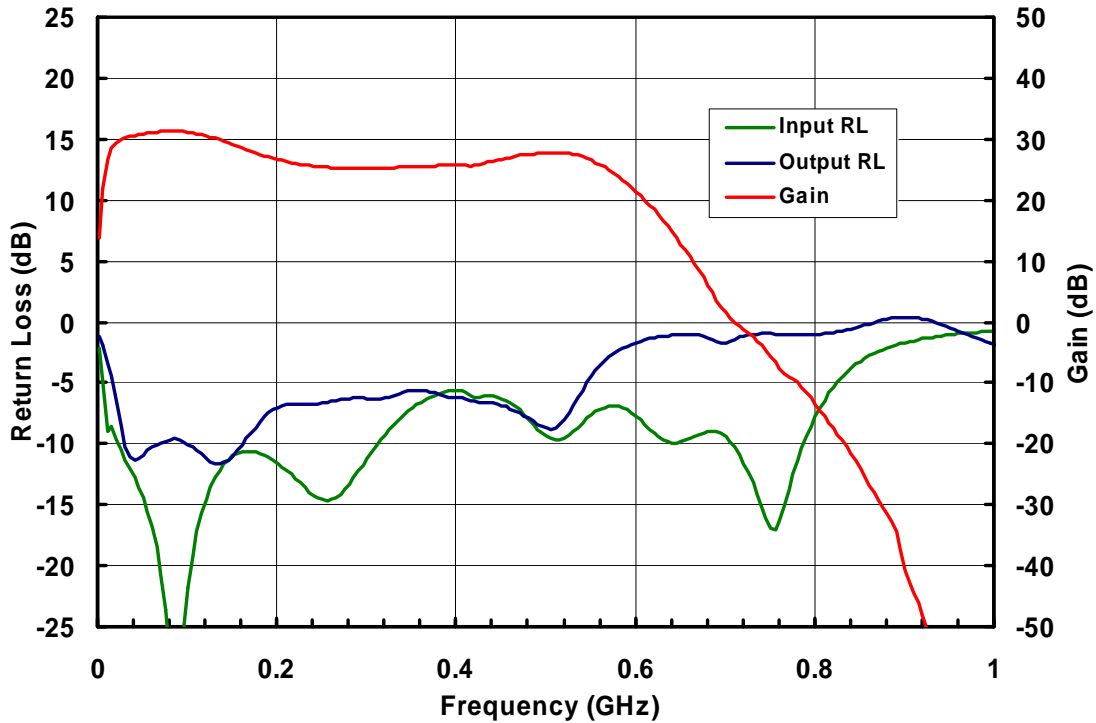
## PERFORMANCE\* ( $V_{ds} = +28\text{V}$ , $I_{dq} = 1.4\text{A}$ , $T_a = 25^\circ\text{C}$ )

| Parameters   | Minimum | Typical            | Maximum          |
|--|---------|--------------------|------------------|
| Frequency  |         | 30 – 500MHz        |                  |
| Gain (Small signal)                                | 23dB    | 28dB               | 33dB             |
| Gain Ripple  |         | $\pm 2.5\text{dB}$ | $\pm 4\text{dB}$ |
| $P_{sat}$  | 49dBm   | 51 dBm             |                  |
| Efficiency   | 35%     | 40%                |                  |
| Input VSWR   |         | 3:1                | 4:1              |
| Output VSWR  |         | 3:1                | 5:1              |
| Thermal Resistance<br>(Device Junction to Housing) |         | 0.6°C/W            |                  |

## ABSOLUTE MAXIMUM RATING

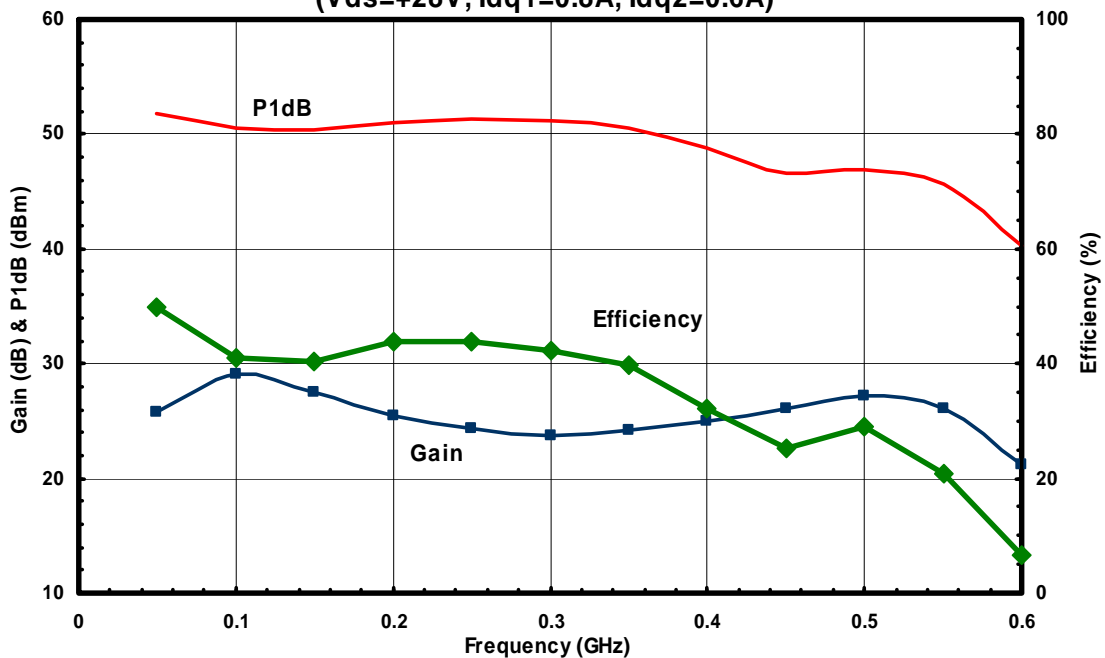
| Parameters                                    | Symbol    | Rating          |
|---|-----------|-----------------|
| Drain to Source voltage                       | $V_{ds}$  | 50V             |
| Gate to Source voltage                        | $V_{gs}$  | 15V             |
| Drain source current                          | $I_{ds}$  | 23A             |
| Continuous dissipation<br>at room temperature | $P_t$     | 440W            |
| Channel temperature                           | $T_{ch}$  | 200°C           |
| Storage temperature                           | $T_{sto}$ | -60°C to +150°C |

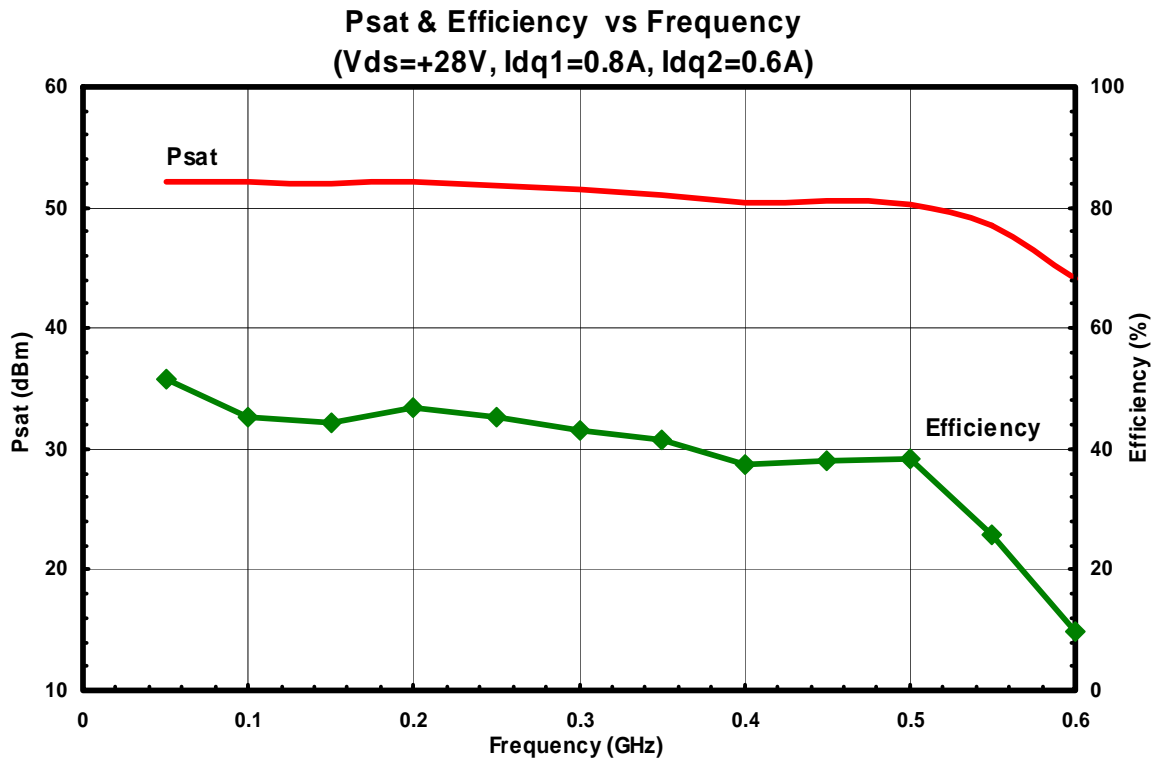
**SMALL SIGNAL DATA ( $V_{ds}= +28V$ ,  $I_{dq1}=0.8A$ ,  $I_{dq2}=0.6A$ ,  $T_a=25^{\circ}C$ )**



**POWER DATA ( $V_{ds}= +28V$ ,  $I_{dq}=1.4A$ ,  $T_a=25^{\circ}C$ )**

**Gain, P1dB & Efficiency vs Frequency**  
 ( $V_{ds}=+28V$ ,  $I_{dq1}=0.8A$ ,  $I_{dq2}=0.6A$ )





PACKAGE OUTLINE

