

## Features:

- 10 - 3000 MHz Freq Range
- 16 dB Gain
- 2.0:1.0 VSWR
- +27.0 dBm P1dB
- Single Positive Bias
- Leadless Surface Mount Package (02)



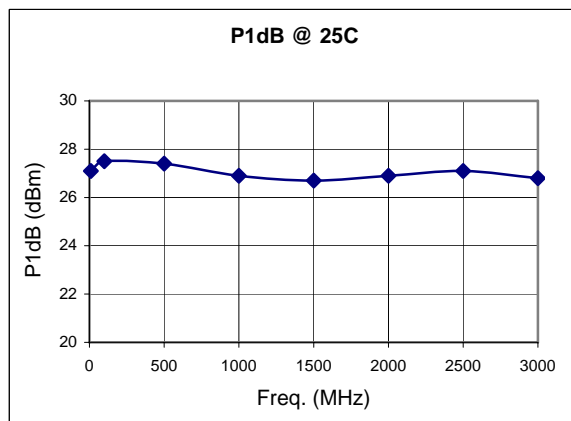
## Description:

The MPS-0030H16-02 is an internally matched wide band modular amplifier. It is designed for both military and commercial applications such as LO driver, buffer amplifier, and as a medium power gain block. It is ideal for satellite up and down converter and telemetry applications, and for digital radio communications for military electronic systems and wireless communications. It requires a single 7 volt positive bias and only draws 240 MA DC current. The P1 dB is typically 27 dBm and the gain is 16 dB typically. It is available in a low cost Leadless surface mount package.

## Electrical Specifications:

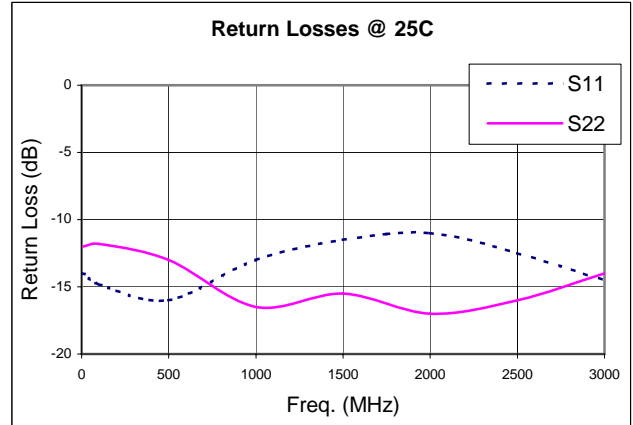
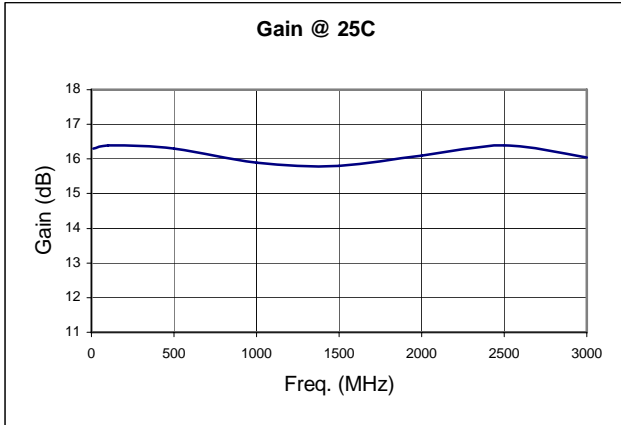
- @ 25°C, Vdd = 7.0 to 8.0 V, Zo = 50 ohms

SYMBOL	PARAMETERS	Min	Typical	Max	Unit
Freq.	Frequency Range	10		3000	MHz
SSG	Small Signal Gain	14.5	16.0		dB
P1 dB	Pout at 1 dB Comp Point	25.5	27		dBm
IP3	Third-Order Intercept		33.5		dBm
VSWR	VSWR (Input/Output)		2.0:1		
GOF	Gain Var. over Frequency		± 0.5	± 0.8	dB
GOT	Gain Var. over Temp		-0.015		dB/°C
Idd	DC Current		240	270	mA
Rth	Thermal Resistance		55		°C/W

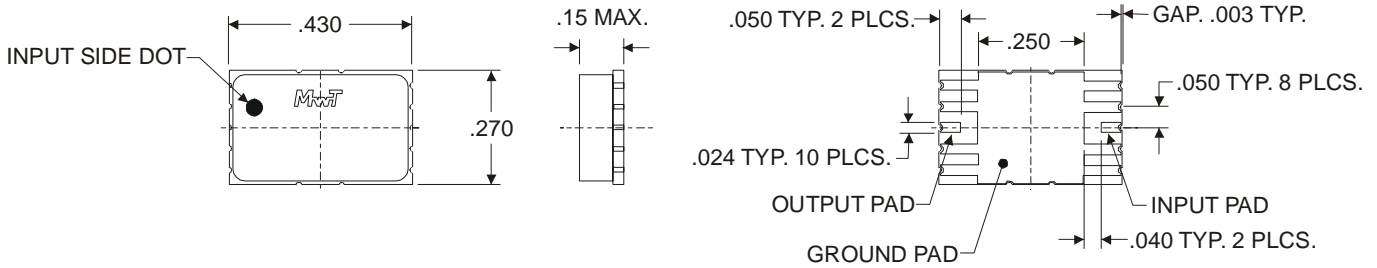


## Absolute Maximum Ratings

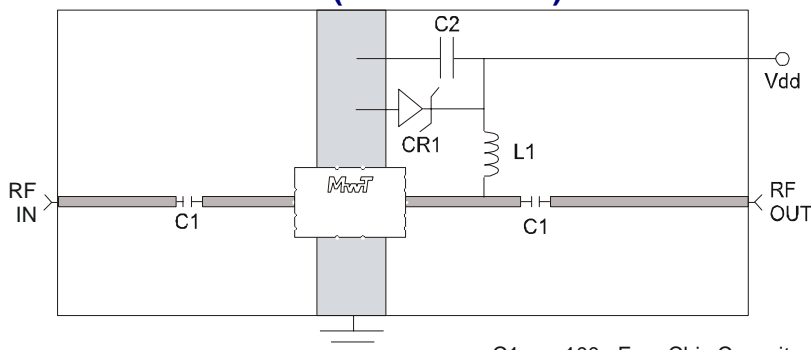
Maximum Bias Voltage	8.0 V
Maximum RF Input Power	500 mW
Maximum Channel Temperature	+175 °C
Maximum Storage Temperature	- 65 °C to + 150 °C



**Outline Diagram (Package 02)**



**Application Circuit (300-3000 MHz)**



- |     |        |                       |
|-----|--------|-----------------------|
| C1  | 100 pF | Chip Capacitor        |
| C2  | 22 uF  | Capacitor             |
| L1  | 160 nH | Printed or Wound Coil |
| CR1 | 8.0 V  | Zener Diode           |

50 ohm Microstrip Line