

FEATURES

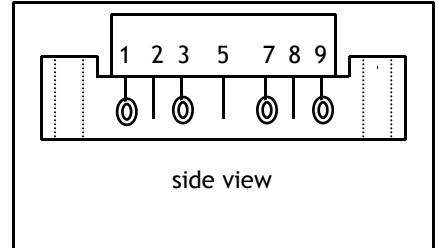
- GaAs active devices
- Power gain @29dB
- Low distortion
- Excellent linear gain
- Low noise figure
- High reliability
- Low cost

DESCRIPTION

The SMG1029 is a GaAs hybrid push-pull amplifier module. The part employs GaAs dies and is operated from 50 MHz to 1000MHz with supply voltage +24V(DC)

OUTLINE

PIN CONFIGURATION



Pin Description

1	Input
5	+V _B
9	Output
2、3、7、8	GND

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNITS
G _p	Power Gain	f=50 MHz	29	30.5	dB
I _{tot}	Total current consumption(DC)	V _B =24V	250	330	mA

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LIMITING VALUES

In accordance with the Absolute Maximum Rating System

SYMBOL	PARAMETER	MIN.	MAX.	UNITS
V_i	RF input voltage	-	50	dBmV
T_{stg}	Storage temperature	-40	+100	°C
T_{mb}	Operating mounting base temperature	-20	+90	°C

CHARACTERISTICS

(Bandwidth 50 to 1000MHz; $T_{mb}=25^{\circ}\text{C}$, $V_B=24\text{V}$, $Z_S=Z_L=75\Omega$)

SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
G_p	Power Gain	dB	29	-	30.5	f=50MHz
SL	Slope cable equivalent	dB	0.5	1.5	2.5	f=50 to 1000 MHz
FL	Flatness of frequency response	dB	-	-	±0.5	f=50 to 1000 MHz
S11&S22	Input & output return loss	dB	-	-	-16	f=50 to 860 MHz
		dB	-	-	-14	f=861 to 1000 MHz
CTB	Composite Triple Beat	dB	-	-	-62	PAL 60 channel; $V_o=44\text{dBmV}$;
CSO	Composite Second Order distortion	dB	-	-	-63	CTB measured at 543.25 MHz;
X_{mod}	Cross Modulation	dB	-	-	-55	CSO measured at 544.5 MHz;
V_o	Output Voltage	dBmV	60	-	-	$d_{im}=-60\text{dB}$
F	Noise Figure	dB	-	4.0	-	f=860 MHz
I_{tot}	Total Current Consumption	mA	250	330	-	$V_B=+24\text{V}$

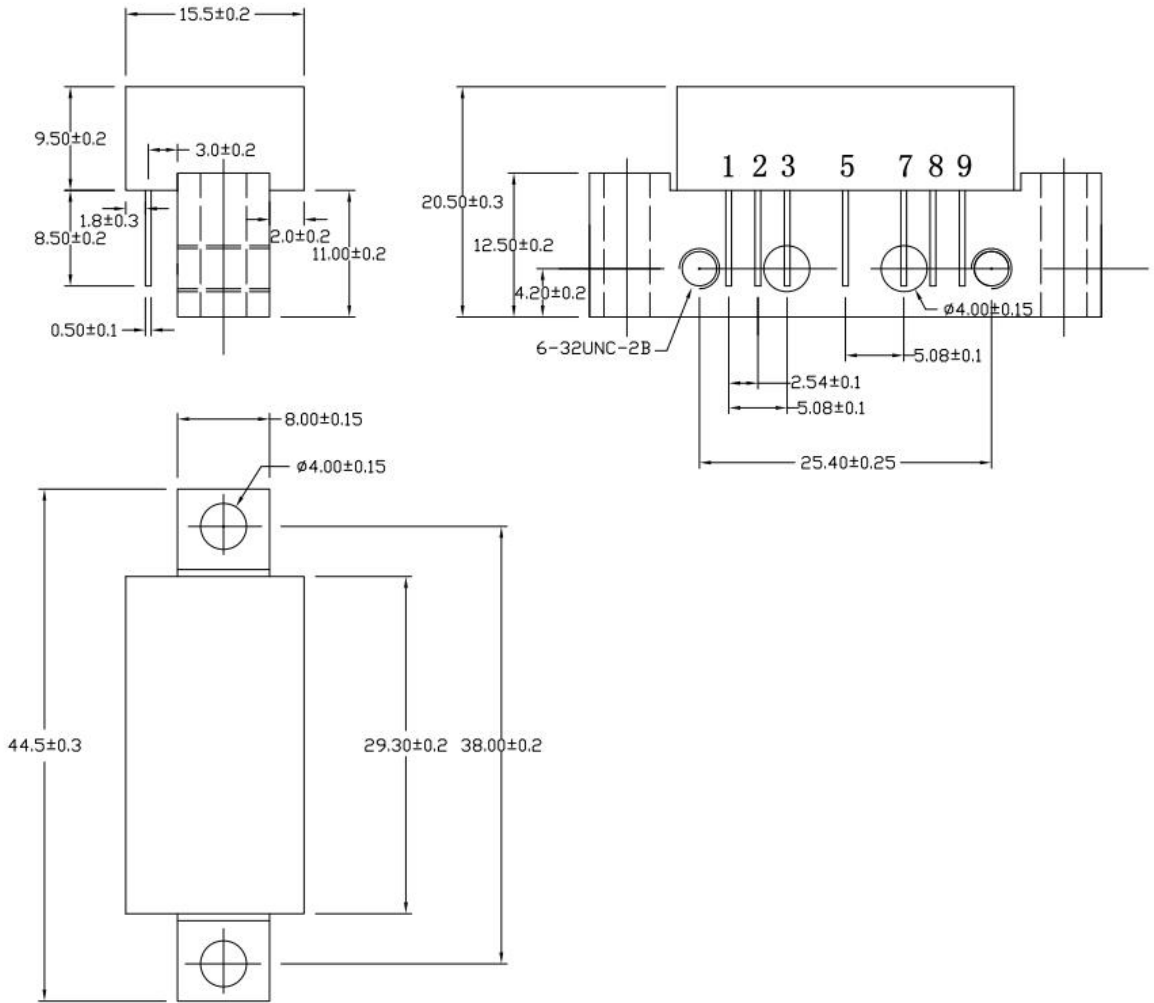
The module normally operates at $V_B=24\text{V}(\pm 0.5)$,

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MODULE DIMENSIONS



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