

FEATURES

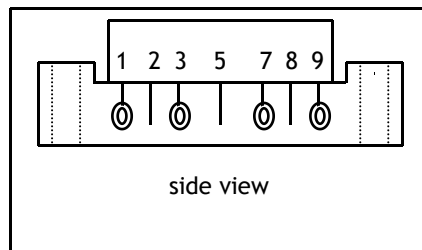
- GaAs active devices
- Power gain @25dB
- Low distortion
- Excellent linear gain
- Low noise figure
- High reliability
- Low cost

DESCRIPTION

The SMG1025DM is a GaAs hybrid power double amplifier module. The part employs GaAs dies and is operated from 50MHz to 1003MHz 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	23.5	24.5	dB
I _{tot}	Total current consumption(DC)	V _B =24V	330	400	mA

LIMITING VALUES

In accordance with the Absolute Maximum Rating System

SYMBOL	PARAMETER	MIN.	MAX.	UNITS
V _i	RF input voltage	-	55	dBmV
T _{stg}	Storage temperature	-40	+100	°C
T _{mb}	Operating mounting base temperature	-20	+90	°C

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CHARACTERISTICS

(Bandwidth 50 to 1003MHz; $T_{mb}=25^{\circ}\text{C}$, $V_B=24\text{V}$, $Z_S=Z_L=75\Omega$)

SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
G_p	Power Gain	dB	23.5	-	24.5	$f=50\text{MHz}$
G_p	Power Gain	dB	-	25	-	$f=1003\text{MHz}$
SL	Slope cable equivalent	dB	1.0	-	2.5	$f=50$ to 1003 MHz
FL	Flatness of frequency response	dB	-	-	± 0.5	$f=50$ to 1003 MHz
S_{11} & S_{22}	Input/Output Return Loss	dB	-	-	-16	$f=50$ to 860 MHz
S_{11} & S_{22}	Input/Output Return Loss	dB	-	-	-15	$f=861$ to 1003 MHz
CTB	Composite Triple Beat	dB	-	-	-60	99channels flat; $V_o=48\text{dBmV}$;
CSO	Composite Second Order distortion	dB	-	-	-63	CTB measured at 543.25 MHz ;
X_{mod}	Cross Modulation	dB	-	-	-60	CSO measured at 544.5 MHz ;
V_o	Output Voltage	dBmV	60	-	-	$d_{im}=-60\text{dB}$
F	Noise Figure	dB	-	-4.0	-	$f=860\text{ MHz}$
I_{tot}	Total Current Consumption	mA	330	-	400	$V_B=+24\text{V}$

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

MODULE DIMENSIONS

