

### FEATURES

- GaAs active devices
- Power gain @34dB
- Low distortion
- Excellent linear gain
- Low noise figure
- High reliability
- Low cost

### DESCRIPTION

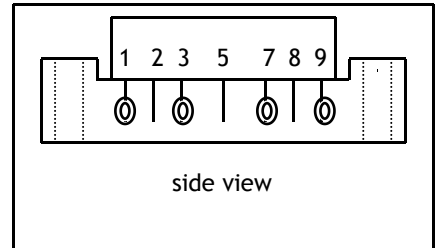
The SMG1234PG is a GaAs/GaN hybrid push pull amplifier module.

The part employs GaAs dies and is operated from 50MHz to

1218MHz with supply voltage +24V( DC)

### OUTLINE

PIN CONFIGURATION



### Pin Description

1	Input
5	+V <sub>B</sub>
9	Output
2、3、7、8	GND

### QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNITS
G <sub>p</sub>	Power Gain	f=50 MHz	33.5	34.5	dB
I <sub>tot</sub>	Total current consumption(DC)	V <sub>B</sub> =24V	280	320	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	-	70	dBmV
$T_{stg}$	Storage temperature	-40	+100	°C
$T_{mb}$	Operating mounting base temperature	-30	+100	°C

### CHARACTERISTICS

(Bandwidth 50 to 1218MHz;  $T_{mb}=25^{\circ}\text{C}$ ,  $V_B=24\text{V}$ ,  $Z_S=Z_L=75\Omega$ )

SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
$G_p$	Power Gain	dB	33.5	34	34.5	$f=50\text{MHz}$
$G_p$	Power Gain	dB	-	35	-	$f=870\text{MHz}$
$G_p$	Power Gain	dB	34.5	35.0	36	$f=1218\text{MHz}$
SL	Slope cable equivalent	dB	0.5	1.0	2.0	$f=50$ to $1218$ MHz
FL	Flatness of frequency response	dB	-	-	$\pm 1.0$	$f=50$ to $1218$ MHz
$S_{11}$ & $S_{22}$	Input & Output Return Loss	dB	-	-	-17	$f=50$ to $1000$ MHz
$S_{11}$ & $S_{22}$	Input & Output Return Loss	dB	-	-	-15	$f=1000$ to $1218\text{MHz}$
CTB	Composite Triple Beat	dB	-	-65	-62	Vo=45dBmV at 862MHz, flat, 98 Analog channel
CSO	Composite Second Order distortion	dB	-	-65	-62	
$X_{mod}$	Cross Modulation	dB	-	-62	-	
F	Noise Figure	dB	-	4.5	5.0	$f=50$ to $1218$ MHz
$I_{tot}$	Total Current Consumption	mA	280	300	320	$V_B=+24\text{V}$

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

### MODULE DIMENSIONS

