

### FEATURES

- Si active devices
- Power gain @30dB
- Low distortion
- Excellent linear gain
- Low noise figure
- High reliability
- Low cost

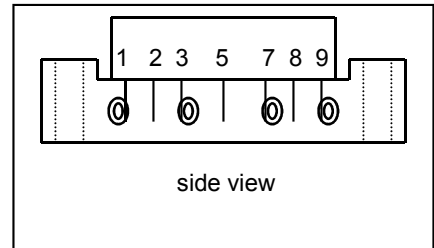
### DESCRIPTION

The SMG1302R is a hybrid reverse amplifier module.

The part employs Si dies and is operated from 5MHz to 120MHz 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=10 MHz	29.5	31	dB
I <sub>tot</sub>	Total current consumption(DC)	V <sub>B</sub> =24V	130	160	mA

### LIMITING VALUES

In accordance with the Absolute Maximum Rating System

SYMBOL	PARAMETER	MIN.	MAX.	UNITS
V <sub>i</sub>	RF input voltage	-	65	dBmV
T <sub>stg</sub>	Storage temperature	-40	+100	°C
T <sub>mb</sub>	Operating mounting base temperature	-20	+90	°C

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### CHARACTERISTICS

(Bandwidth 5 to 120MHz;  $T_{mb}=25^{\circ}\text{C}$ ,  $V_B=24\text{V}$ ,  $Z_S=Z_L=75\Omega$ )

SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
$G_p$	Power Gain	dB	29.5	-	31	$f=10\text{MHz}$
$G_p$	Power Gain	dB	-	30.5	-	$f=120\text{MHz}$
SL	Slope cable equivalent	dB	-0.5	-	+0.5	$f=5$ to 120MHz
FL	Flatness of frequency response	dB	-	-	$\pm 0.5$	$f=5$ to 120MHz
$S_{11}$	Input Return Loss	dB	-	-	-20	$f=5$ to 120MHz
$S_{22}$	Output Return Loss	dB	-	-	-20	$f=5$ to 120MHz
CTB	Composite Triple Beat	dB	-	-	-66	17channels flat; $V_o=50\text{dBmV}$ ;
CSO	Composite Second Order distortion	dB	-	-	-65	
$X_{mod}$	Cross Modulation	dB	-	-	-60	
F	Noise Figure	dB	-	4.3	-	$f=120$ MHz
$I_{tot}$	Total Current Consumption	mA	130	160		$V_B=+24\text{V}$

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

### MODULE DIMENSIONS

