

FEATURES

- Si active devices
- Power gain @24.5dB
- Low distortion
- Excellent linear gain
- Low noise figure
- High reliability
- Low cost

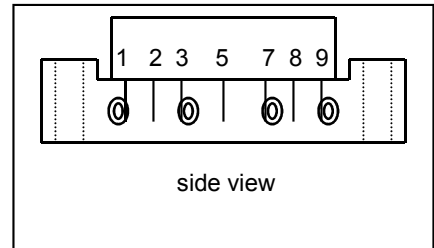
DESCRIPTION

The SMG1242R 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

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=10 MHz	24	25	dB
I _{tot}	Total current consumption(DC)	V _B =24V	130	160	mA

LIMITING VALUES

In accordance with the Absolute Maximum Rating System

SYMBOL	PARAMETER	MIN.	MAX.	UNITS
V _i	RF input voltage	-	65	dBmV
T _{stg}	Storage temperature	-40	+100	°C
T _{mb}	Operating mounting base temperature	-20	+90	°C

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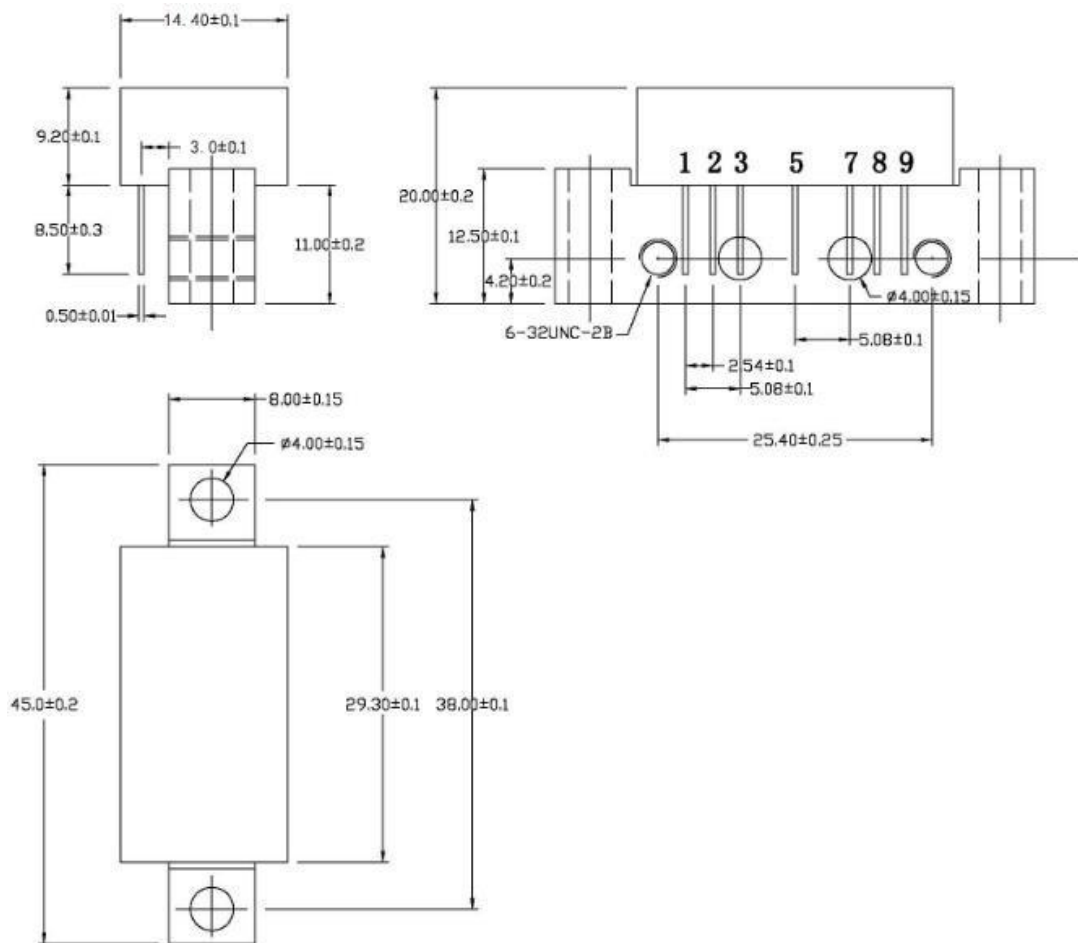
CHARACTERISTICS

(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	24	-	25	$f=10\text{MHz}$
G_p	Power Gain	dB	-	24.5	-	$f=120\text{MHz}$
SL	Slope cable equivalent	dB	-0.5	-	+0.5	$f=5$ to 120MHz
FL	Flatness of frequency response	dB	-	-	± 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(± 0.5),

MODULE DIMENSIONS



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