SANLAND

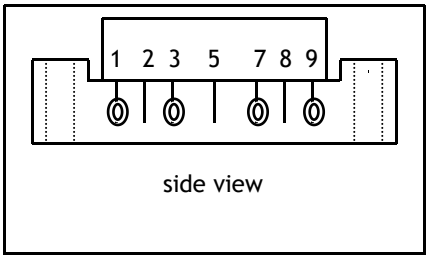
GaAs Push-Pull Module SMG1034PM/CATV

FEATURES

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

OUTLINE

PIN CONFIGURATION



Pin	Description
1	Input
5	$+V_B$
9	Output
2、3、7、8	GND

DESCRIPTION

The SMG1034PM is a GaAs hybrid push-pull amplifier module. The part employs GaAs dies and is operated from 50MHz to 1003MHz with supply voltage +24V(DC)

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNITS
G_p	Power Gain	f=50 MHz	33	34	dB
I_{tot}	Total current consumption(DC)	V_B=24V	270	340	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	-	55	dBmV
T_{stg}	Storage temperature	-40	+100	℃
T_{mb}	Operating mounting base temperature	-20	+90	℃

CHARACTERISTICS

(Bandwidth 50 to 1003MHz; T_{mb}=25℃, V_B=24V, Z_S=Z_L=75Ω)

SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
G_p	Power Gain	dB	32.5	33.5	34	f=50MHz
G_p	Power Gain	dB	35.0	36	37	f=1003MHz
SL	Slope cable equivalent	dB	1.0	2.0	3	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	-	-	-12	f=861 to 1003 MHz
CTB	Composite Triple Beat	dB	-	-	-66	99channels flat; Vo=44dBmV;
CSO	Composite Second Order distortion	dB	-	-	-65	CTB measured at 543.25 MHz;
X_{mod}	Cross Modulation	dB	-	-	-61	CSO measured at 544.5 MHz;
V_o	Output Voltage	dBmV	60	-	-	d_{im}=-60dB
F	Noise Figure	dB	-	5.0	6.2	f=860 MHz
I_{tot}	Total Current Consumption	mA	270	340		V_B=+24V

The module normally operates at V_B=24 V(±0.5),

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MODULE DIMENSIONS