

2SK2113

GaAs HEMT

Application

UHF low noise amplifier

Features

- HEMT structure
- Excellent low noise characteristics
NF=0.8dB typ (f=900MHz)
- High gain
Ga=18dB typ (f=900MHz)
- Small package (CMPAK-4)

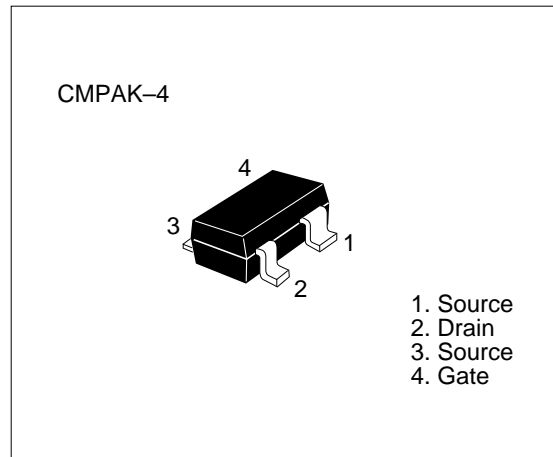


Table 1 Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V_{DS}	3.5	V
Gate to source voltage	V_{GSO}	-3	V
Gate to drain voltage	V_{GDO}	-3	V
Drain current	I_D	60	mA
Channel power dissipation	Pch	100	mW
Channel temperature	Tch	125	°C
Storage temperature	Tstg	-55 to +125	°C

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Table 2 Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Gate to source leakage current	I_{GSS}	—	—	-10	μA	$V_{DS} = 0\text{V}, V_{GS} = -3\text{V}$
Drain current	I_{DSS}	12	—	60	mA	$V_{DS} = 2\text{V}, V_{GS} = 0$ (Pulse Test)
Gate to source cutoff voltage	$V_{GS(off)}$	-0.3	—	-2.5	V	$V_{DS} = 2\text{V}, I_D = 100\mu\text{A}$
Forward transfer admittance	$ y_{fs} $	30	50	—	mS	$V_{DS} = 2\text{V}, I_D = 10\text{mA}$ $f=1\text{kHz}$
Noise figure	NF	—	0.8	1.2	dB	$V_{DS} = 2\text{V}, I_D = 10\text{mA}$
Power gain	PG	15.5	18	—	dB	$f=900\text{MHz}$