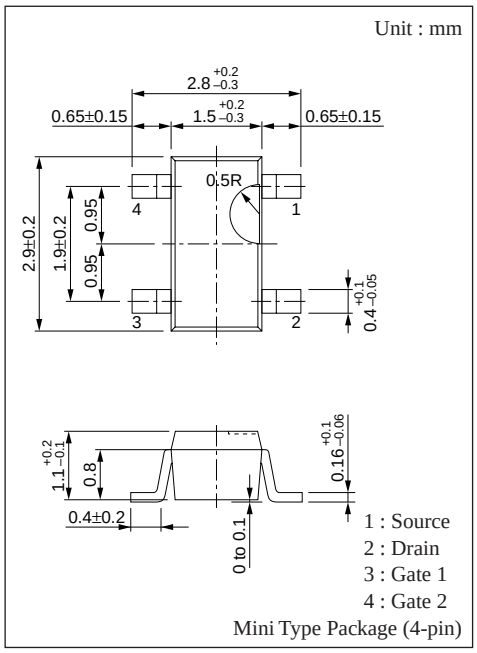
3SK286

Silicon N-Channel MOS

For VHF amplification



■ Features

- Low noise-figure (NF)
- Large power gain PG
- Small variation (ΔC_{iss}) of the input capacitance in AGC operation
- Downsizing of sets by mini power package and automatic insertion by taping/magazine packing are available.

■ Absolute Maximum Ratings (Ta = 25˚C)

Parameter	Symbol	Rating	Unit
Drain-Source voltage	V_{DS}	15	V
Gate 1-Source voltage	V_{G1S}	±8	V
Gate 2-Source voltage	V_{G2S}	±8	V
Drain current	I_D	±30	mA
Allowable power dissipation	P_D	150	mW
Channel temperature	T_{ch}	150	˚C
Storage temperature	T_{stg}	– 55 to +150	˚C

■ Electrical Characteristics (Ta = 25˚C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Drain current	I_{DS}	V_{DS}=10V, V_{G1S}=1.5V, V_{G2S}= 5V	6		20	mA
Gate 1 cut-off current	I_{G1SS}	V_{DS}=V_{G2S}= 0, V_{G1S}= ±8V			±20	nA
Gate 2 cut-off current	I_{G2SS}	V_{DS}=V_{G1S}= 0, V_{G2S}= ±8V			±20	nA
Gate 1-Source cut-off voltage	V_{G1SC}	V_{DS}=10V, V_{G2S}= 5V, I_D= 0.1mA	– 0.5		1.5	V
Gate 2-Source cut-off voltage	V_{G2SC}	V_{DS}=10V, V_{G1S}= 5V, I_D= 0.1mA	– 0.5		1.5	V
Drain-Source voltage	V_{DSX}	I_D= 50µA, V_{G1S}= –5V, V_{G2S}= 0	15			V
Forward transadmittance	$\lvert Y_{fs} \rvert$	V_{DS}=10V, I_D=10mA, V_{G2S}= 5V, f=1kHz	14	20	26	mS
Input capacitance	C_{iss}	V_{DS}=10V, V_{G1S}= V_{G2S}= –5V, f=1MHz	2.9	3.5	4.4	pF
Output capacitance	C_{oss}		0.8	1.2	1.5	pF
Feedback capacitance	C_{rss}			0.02		pF
Power gain	PG	V_{DS}= 8V, I_D= 8mA, V_{G2S}= 3V, f= 190MHz(Sweep)	19	22	25	dB
Noise figure	NF				2.9	dB

■ Marking