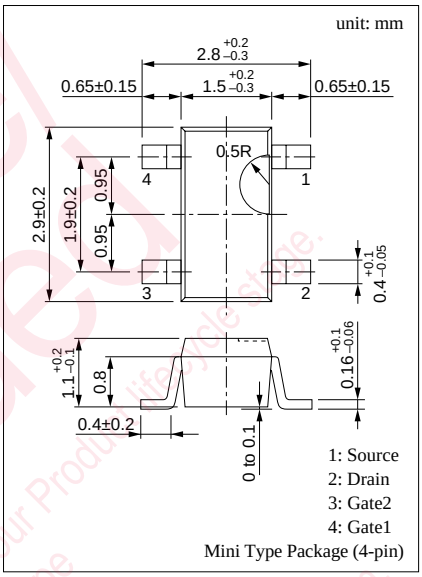
3SK286

Silicon N-Channel MOS FET

For VHF amplification



Marking Symbol: HW

■ Features

- Low noise-figure (NF)
- Large power gain PG
- Small variation (ΔC_{iss}) of the input capacitance during AGC operation
- Mini-type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing.

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Drain to Source voltage	V_{DS}	15	V
Gate 1 to Source voltage	V_{G1S}	±8	V
Gate 2 to 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	Conditions	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 to Source cut-off voltage	V_{G1SC}	V_{DS} = 10V, V_{G2S} = 5V, I_D = 0.1mA	– 0.5		1.5	V
Gate 2 to Source cut-off voltage	V_{G2SC}	V_{DS} = 10V, V_{G1S} = 5V, I_D = 0.1mA	– 0.5		1.5	V
Drain to Source voltage	V_{DSX}	I_D = 50µA, V_{G1S} = –5V, V_{G2S} = 0	15			V
Forward transfer admittance	$\lvert Y_{fs} \rvert$	V_{DS} = 10V, I_D = 10mA, V_{G2S} = 5V, f = 1kHz	14	20	26	mS
Input capacitance (Common Source)	C_{iss}	V_{DS} = 10V, V_{G1S} = V_{G2S} = –5V, f = 1MHz	2.9	3.5	4.4	pF
Output capacitance (Common Source)	C_{oss}		0.8	1.2	1.5	pF
Reverse transfer capacitance (Common Source)	C_{rss}			0.02		pF
Power gain	PG	V_{DS} = 8V, I_D = 8mA, V_{G2S} = 3V, f = 190 to 210MHz (Sweep)	19	22	25	dB
Noise figure	NF				2.9	dB

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