

3SK301 (Tentative), 3SK305 (Tentative)

Silicon N-Channel MOS FET

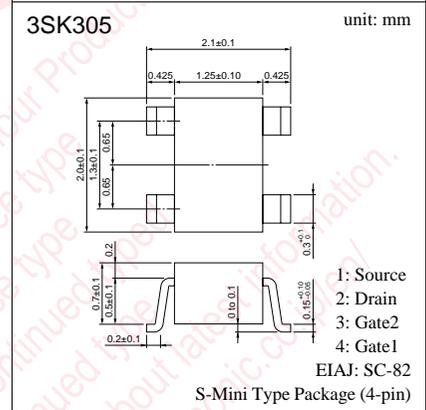
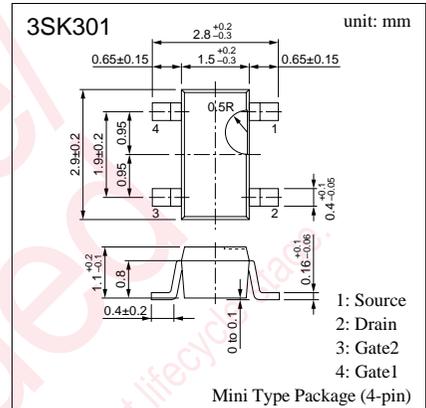
For low-voltage operating VHF amplification

■ Features

- Achieving the equivalent performance to the conventional products under low voltage operation.
- Mini-type/S-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_{DS}	± 30	mA
Allowable power dissipation	P_D	150	mW
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	-55 to +150	°C



Marking Symbol: A

■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain current	I_{DS}	$V_{DS} = 3.5V, V_{G1S} = 1.5V, V_{G2S} = 3V$	5	15	23	mA
Gate 1 cut-off current	I_{G1SS}	$V_{DS} = V_{G2S} = 0, V_{G1S} = \pm 8V$			± 20	nA
Gate 2 cut-off current	I_{G2SS}	$V_{DS} = V_{G1S} = 0, V_{G1S} = \pm 8V$			± 20	nA
Gate 1 to Source cut-off voltage	V_{G1SC}	$V_{DS} = 3.5V, V_{G2S} = 3V, I_{DS} = 100\mu A$	0	0.6	1.3	V
Gate 2 to Source cut-off voltage	V_{G2SC}	$V_{DS} = 3.5V, V_{G1S} = 3V, I_{DS} = 100\mu A$	0.15	0.65	1.35	V
Drain to Source voltage	V_{DSX}	$I_{DS} = 50\mu A, V_{G1S} = -5V, V_{G2S} = 0$	15			V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 3.5V, I_{DS} = 10mA, V_{G2S} = 3V$	17	23	29	mS
Input capacitance (Common Source)	C_{iss}	$V_{DS} = 10V, V_{G1S} = V_{G2S} = -5V$ $f = 1MHz$	2	2.7	3.5	pF
Output capacitance (Common Source)	C_{oss}		1	1.3	1.5	pF
Reverse transfer capacitance (Common Source)	C_{rss}				0.02	pF
Power gain	PG	$V_{DS} = 3.5V, I_D = 8mA, V_{G2S} = 3V$	23.5	25.5	28.5	dB
Noise figure	NF	$f = 200MHz$		2.3	2.6	dB

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