3SK268

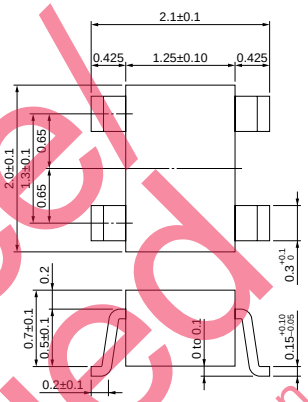
Silicon N-Channel 4-pin MOS FET

For VHF amplification

■ Features

- Low noise-figure (NF)
- Large power gain PG
- S-mini type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing.

unit: mm



1: Drain
2: Source
3: Gate1
4: Gate2
EIAJ: SC-82
S-Mini Type Package (4-pin)

Marking Symbol: AE

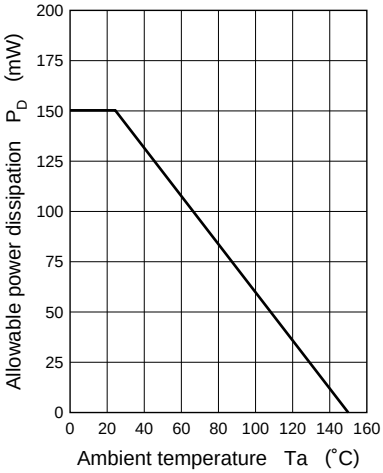
■ Absolute Maximum Ratings (Ta = 25°C)

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

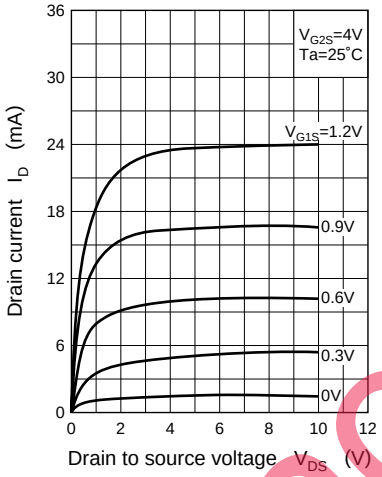
■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I_{DSS}	V_{DS} = 10V, V_{G1S} = 0, V_{G2S} = 4V	0		8	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
Drain to Source voltage	V_{DSX}	I_D = 50µA, V_{G1S} = −5V, V_{G2S} = 0	15			V
Gate 1 to Source cut-off voltage	V_{G1SC}	V_{DS} = 10V, V_{G2S} = 4V, I_D = 100µA	−1.5		0.5	V
Gate 2 to Source cut-off voltage	V_{G2SC}	V_{DS} = 10V, V_{G1S} = 4V, I_D = 100µA	−1.5		0.5	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS} = 10V, I_D = 10mA, V_{G2S} = 4V, f = 1kHz	14	20	26	mS
Input capacitance (Common Source)	C_{iss}	V_{DS} = 10V, V_{G1S} = V_{G2S} = −5V, f = 1MHz	3.5	5	6.2	pF
Output capacitance (Common Source)	C_{oss}		1	1.5	2.2	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)	15	20		dB
Noise figure	NF			1.7	3	dB

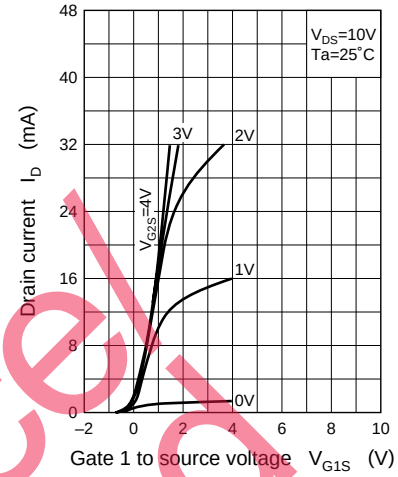
P_D — Ta



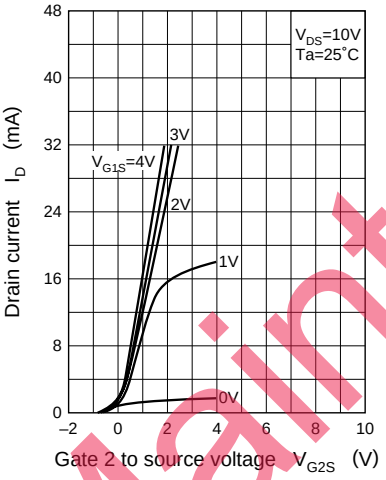
I_D — V_{DS}



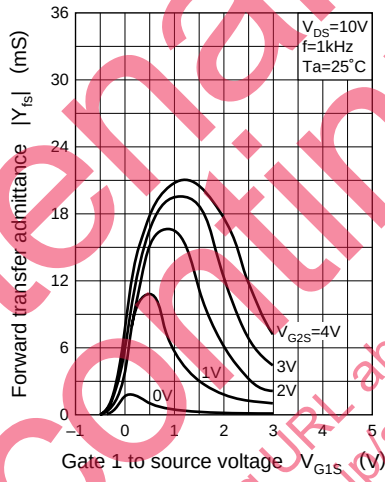
I_D — V_{G1S}



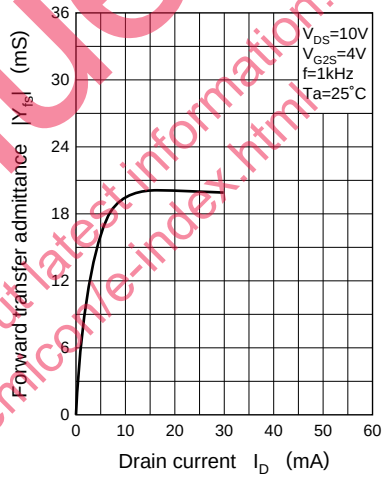
I_D — V_{G2S}



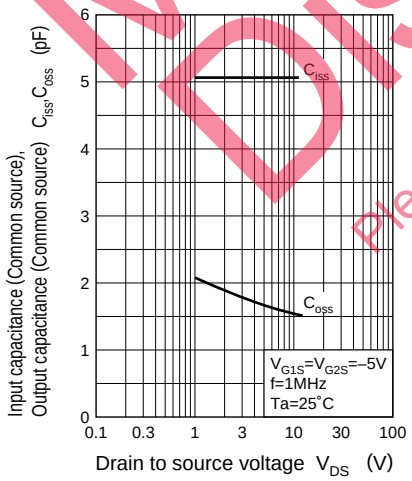
$|Y_{fs}|$ — V_{G1S}



$|Y_{fs}|$ — I_D



C_{iss}, C_{oss} — V_{DS}



I_D — V_{G1S}