

3SK219

Silicon N-Channel 4-pin MOS FET

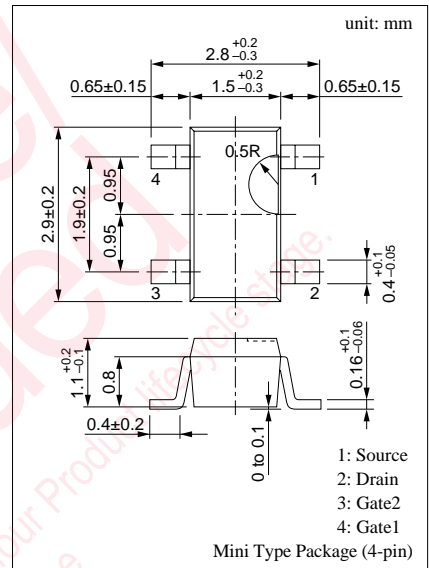
For VHF amplification

■ Features

- Low noise-figure (NF)
- Large power gain PG
- 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

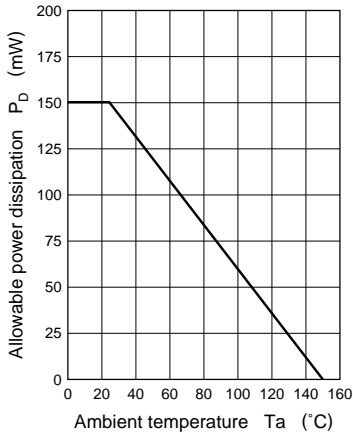


Marking Symbol: AE

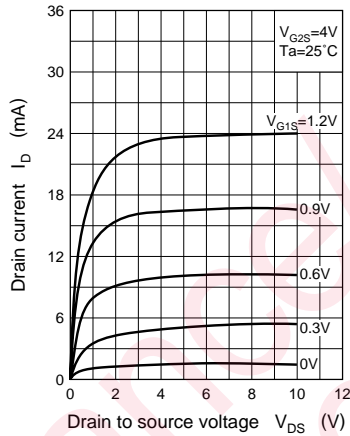
■ Electrical Characteristics (Ta = 25°C)

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	4.4	5	5.8	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	19	21.5	24	dB
Noise figure	NF	f = 190 to 210MHz (Sweep)		1.2	2.5	dB

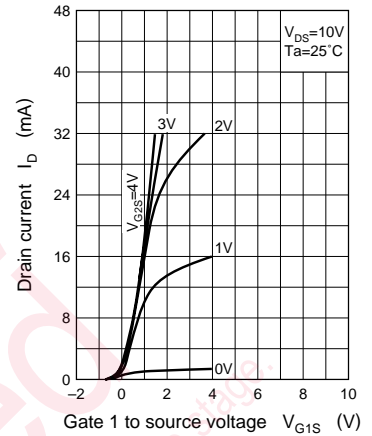
$P_D - T_a$



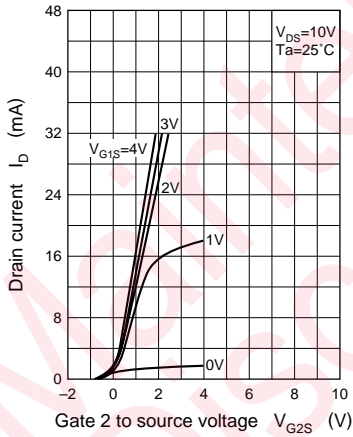
$I_D - V_{DS}$



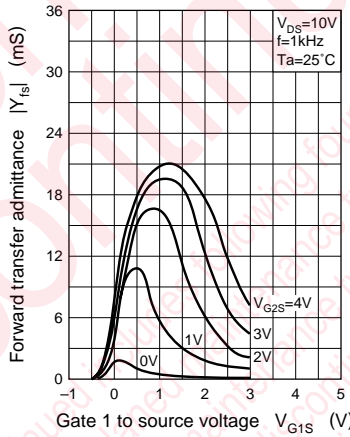
$I_D - V_{G1S}$



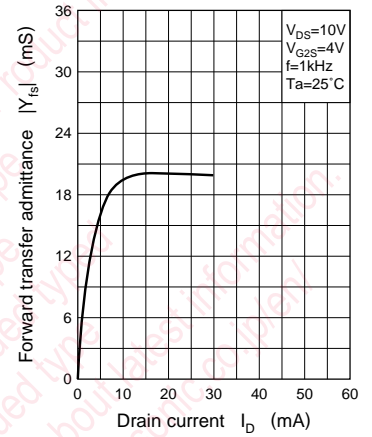
$I_D - V_{G2S}$



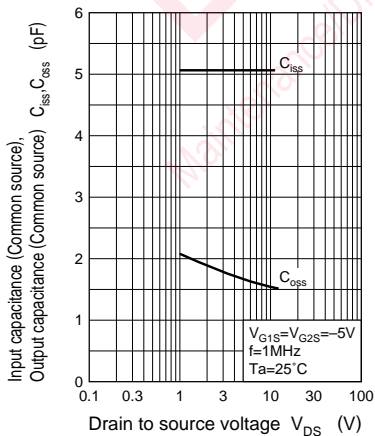
$|Y_{fs}| - V_{G1S}$



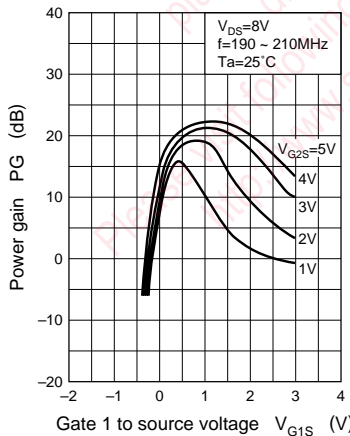
$|Y_{fs}| - I_D$



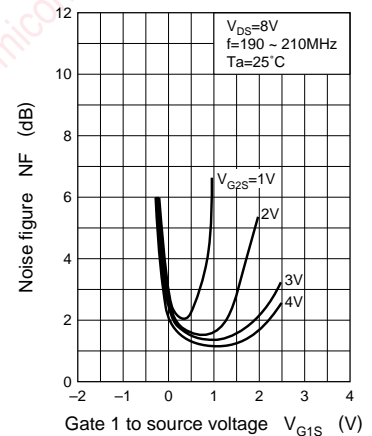
$C_{iss}, C_{oss} - V_{DS}$



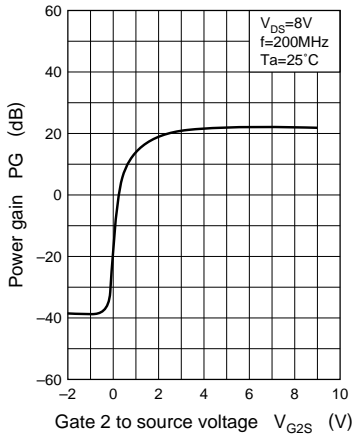
$PG - V_{G1S}$



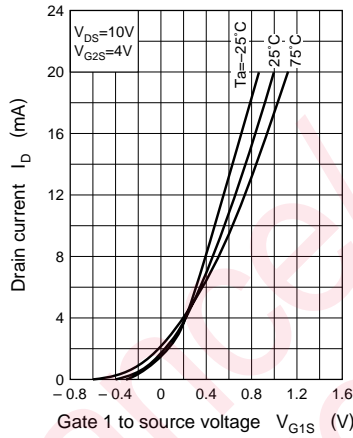
$NF - V_{G1S}$



PG — V_{G2S}



I_D — V_{G1S}



Maintenance/Discontinued includes following four Product lifecycle stage.
 planned maintenance type
 maintenance type
 planned discontinued type
 discontinued type
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