

3SK227

Silicon N-Channel 4-pin MOS

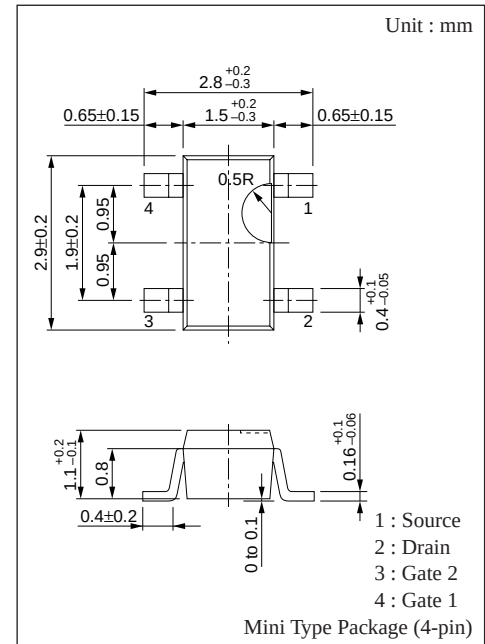
For VHF amplification

■ Features

- Low noise-figure (NF)
- Large power gain PG
- 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	200	mW
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	– 55 to +150	°C

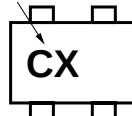


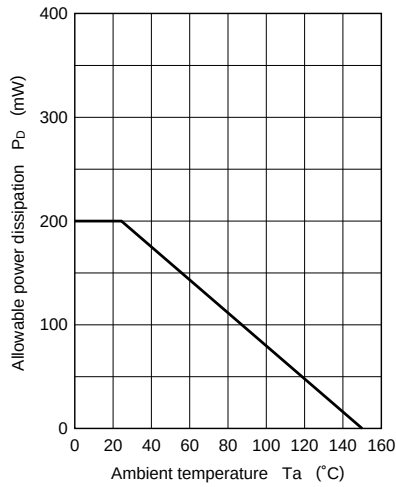
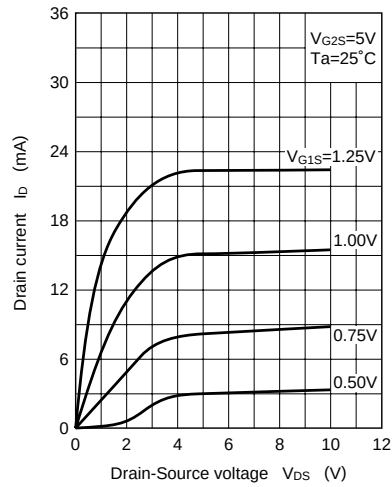
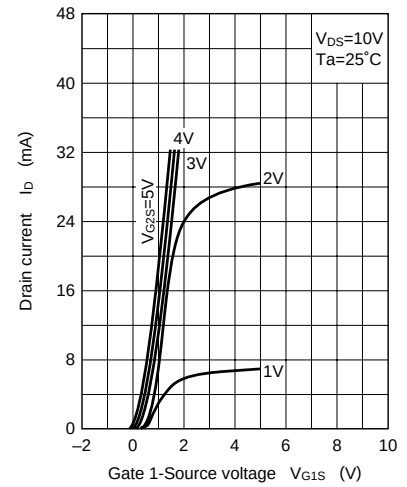
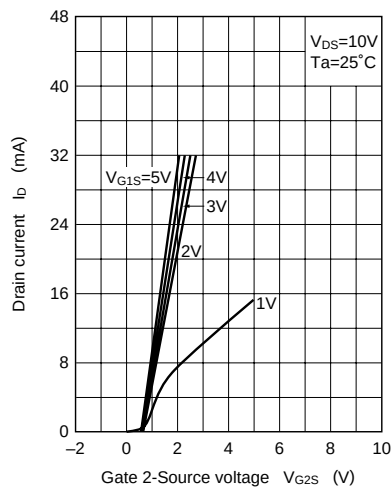
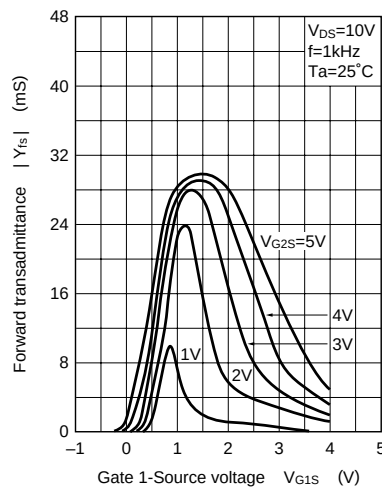
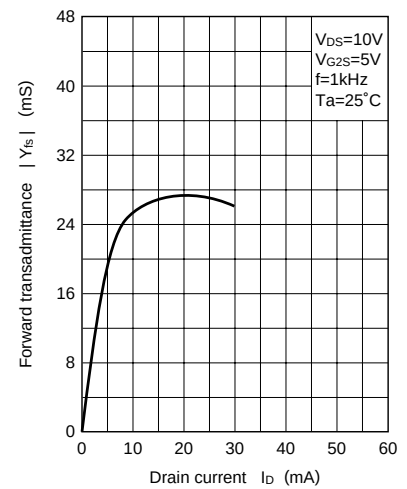
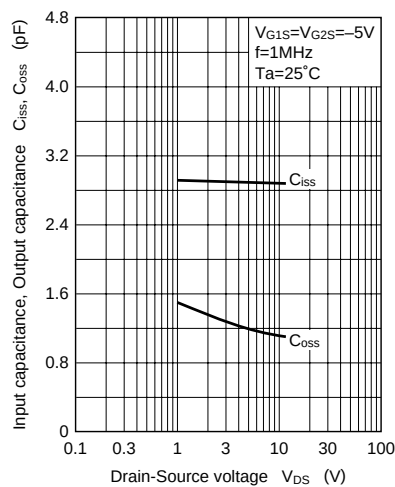
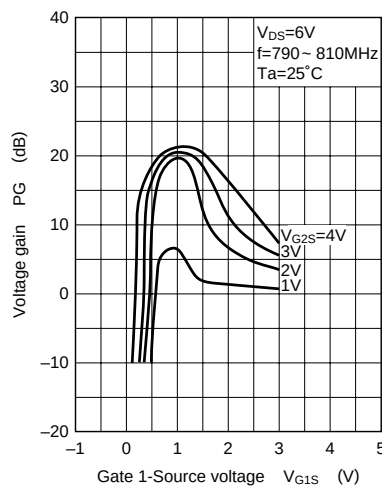
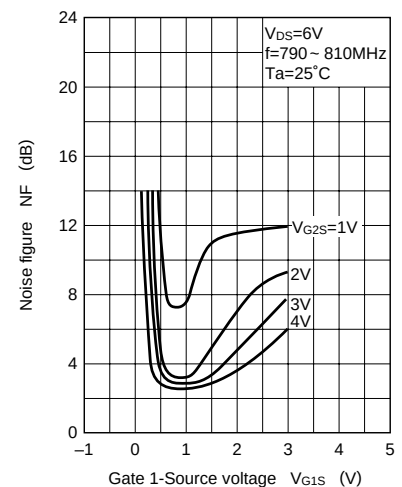
■ Electrical Characteristics (Ta = 25°C)

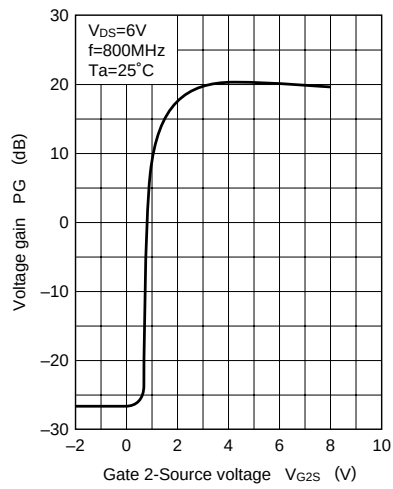
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Drain current	I _{DSS}	V _{DS} =10V, V _{G1S} = 1, V _{G2S} = 5V	6		25	mA
Gate 1 cut-off current	I _{G1SS}	V _{DS} =V _{G2S} = 0, V _{G1S} = ±8V			±20	nA
Gate 2 cut-off current	I _{G2SS}	V _{DS} =V _{G1S} = 0, V _{G2S} = ±8V			±20	nA
Drain-Source voltage	V _{DSX}	I _D = 50μA, V _{G1S} = –5V, V _{G2S} = 0	15			V
Gate 1-Source cut-off voltage	V _{G1SC}	V _{DS} =10V, V _{G2S} = 5V, I _D =100μA	–1.5		1	V
Gate 2-Source cut-off voltage	V _{G2SC}	V _{DS} =10V, V _{G1S} = 5V, I _D =100μA	0		1	V
Forward transadmittance	Y _{fs}	V _{DS} =10V, I _D =10mA, V _{G2S} = 5V, f=1kHz	21	26	31	mS
Input capacitance	C _{iss}	V _{DS} =10V, V _{G1S} = V _{G2S} = –5V, f=1MHz		2.8		pF
Output capacitance	C _{oss}			1.1		pF
Feedback capacitance	C _{rss}			0.02		pF
Power gain	PG	V _{DS} = 6V, I _D = 8mA, V _{G2S} = 4V, f=790 to 810MHz(Sweep)	18.5	20.5		dB
Noise figure	NF			2.5	3.7	dB

■ Marking

Part Number



$P_D - T_a$  $I_D - V_{DS}$  $I_D - V_{G1S}$  $I_D - V_{G2S}$  $|Y_{fs}| - V_{G1S}$  $|Y_{fs}| - I_D$  $C_{iss}, C_{oss} - V_{DS}$  $PG - V_{G1S}$  $NF - V_{G1S}$ 

$PG - V_{G2S}$  $I_D - V_{G1S}$ 