

**3SK202****Silicon N Channel 4-pole MOS Type**

For VHF band high-gain low-noise amplification

**■ Features**

- Low noise figure NF
- Large power gain PG
- Cross pack package

**■ Absolute Maximum Ratings (Ta=25°C)**

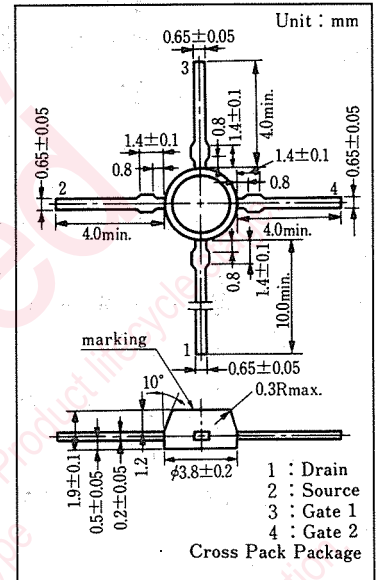
Item	Symbol	Value	Unit
Drain-Source Voltage	$V_{DSX}$	15	V
Gate 1-Source Voltage	$V_{G1S}$	$\pm 8$	V
Gate 2-Source Voltage	$V_{G2S}$	$\pm 8$	V
Drain Current	$I_D$	30	mA
Power Dissipation	$P_D$	250	mW
Channel Temperature	$T_{ch}$	135	°C
Storage Temperature	$T_{stg}$	-55 ~ +135	°C

**■ Electrical Characteristics (Ta=25°C)**

Item	Symbol	Condition	min.	typ.	max.	Unit
Drain-Source Voltage	$V_{DSX}$	$I_D=50\mu A$ , $V_{GS}=-5V$ , $V_{G2S}=0$ $R_D=56\Omega$ , $R_S=270\Omega$	15			V
Gate 1-Source Cut off Current	$V_{G1SC}$	$V_{DS}=10V$ , $V_{G2S}=4V$ , $I_D=100\mu A$		-0.6	-3.0	V
Gate 2-Source Cutoff Current	$V_{G2SC}$	$V_{DS}=10V$ , $V_{G1S}=4V$ , $I_D=100\mu A$		-0.4	-3.0	V
Gate 1 Cutoff Current	$I_{G1SS}$	$V_{DS}=V_{G2S}=0$ , $V_{G1S}=\pm 8V$			$\pm 20$	nA
Gate 2 Cutoff Current	$I_{G2SS}$	$V_{GS}=V_{G1S}=0$ , $V_{G2S}=\pm 8V$			$\pm 20$	nA
Drain Current	$I_{DSS}^{*1}$	$V_{DS}=10V$ , $V_{G1S}=0$ , $V_{G2S}=4V$	0.8		10	mA
Forward Transfer Admittance (Common Source)	$ Y_{fs} $	$V_{DS}=10V$ , $V_{G2S}=4V$ , $I_D=10mA$ , $f=1kHz$	25	30		mS
Input Capacitance	$C_{iss}$	$V_{DS}=10V$ , $V_{G1S}=V_{G2S}=-5V$ , $f=1MHz$	3.5	5.0	7.0	pF
Output Capacitance	$C_{oss}$	$V_{DS}=10V$ , $V_{G1S}=V_{G2S}=-5V$ , $f=1MHz$	1.0	1.4	2.2	pF
Small-Signal Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=10V$ , $V_{G1S}=V_{G2S}=-5V$ , $f=1MHz$		0.02		pF
Power Gain	$PG_1^{*1,2}$	$V_{DS}=8V$ , $I_D=8mA$ , $V_{G2S}=3V$ , $f=195\sim 205MHz$	20	25	30	dB
Noise Figure	$NF_1^{*1,2}$	$V_{DS}=8V$ , $I_D=8mA$ , $V_{G2S}=3V$ , $f=195\sim 205MHz$		2.0	3.0	dB
Power Gain	$PG_2^{*1,2}$	$V_{DS}=8V$ , $I_D=8mA$ , $V_{G2S}=3V$ , $f=45\sim 55MHz$	22	26	32	dB
Noise Figure	$NF_1^{*1,2}$	$V_{DS}=8V$ , $I_D=8mA$ , $V_{G2S}=3V$ , $f=45\sim 55MHz$		3.8	4.5	dB

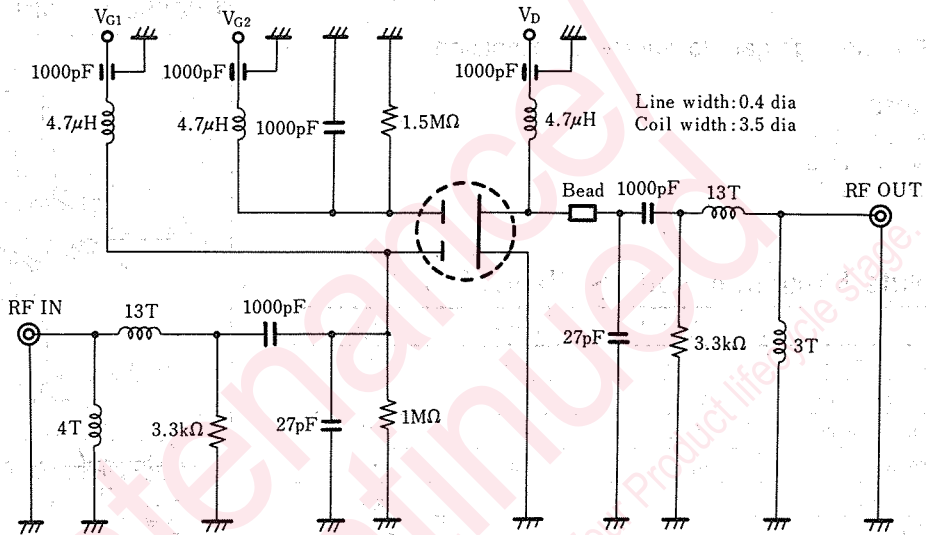
\* $I_{DSS}$  Ranking

Rank	Q	R
$I_{DSS}$ (mA)	0.8~7.0	4.0~10

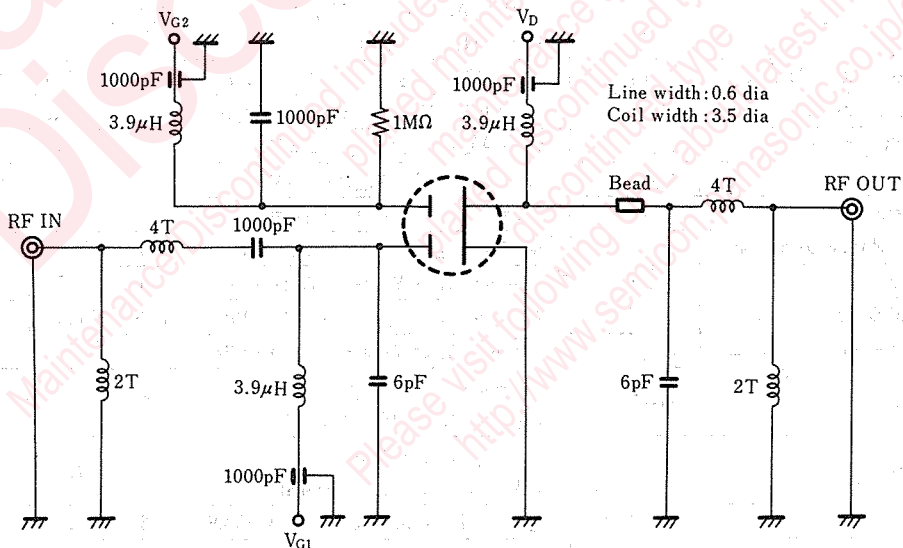
**■ Package Dimensions**

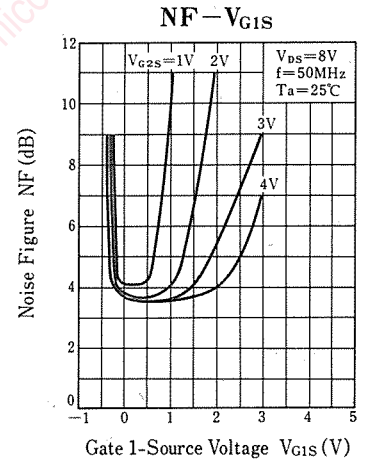
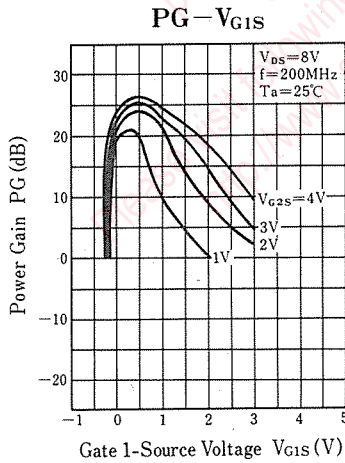
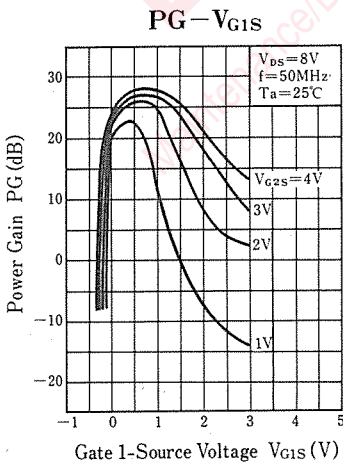
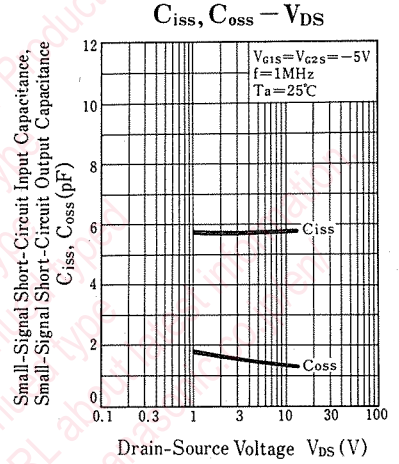
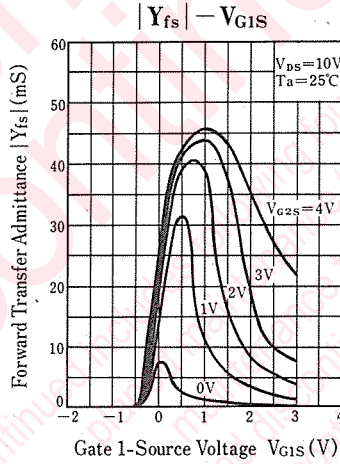
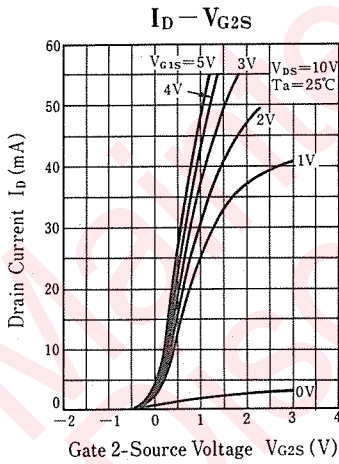
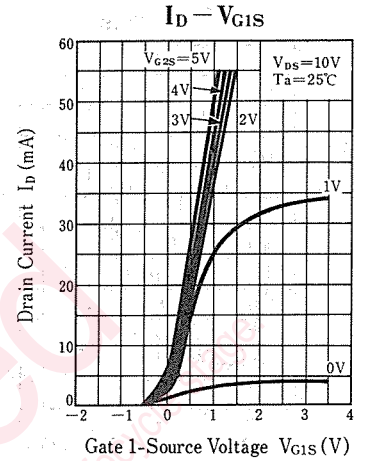
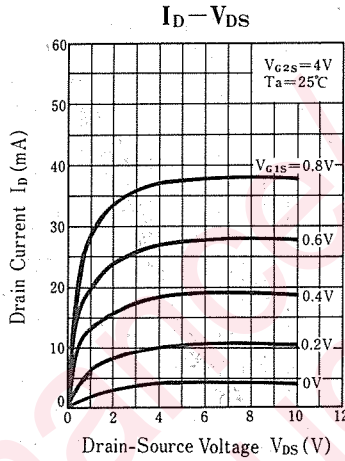
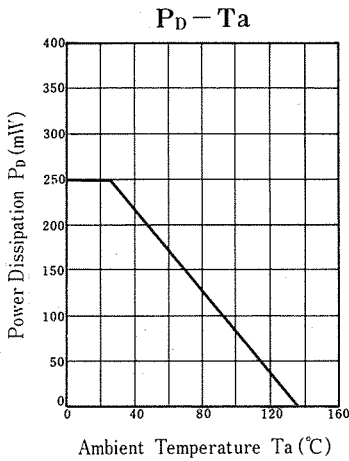
Note: In the range of  $f$ : PG=max. value and NF=min. value

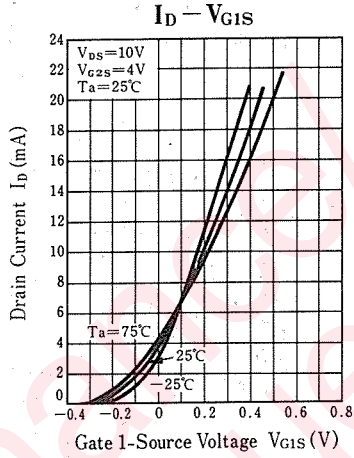
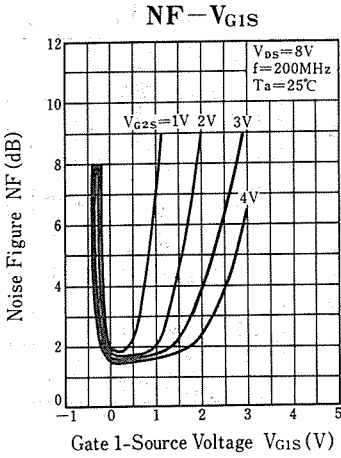
\* 2 PG, NF Measuring Circuit ( $f=50\text{MHz}$ )



\* 3 PG, NF Measuring Circuit ( $f=200\text{MHz}$ )







Maintenance/Discontinued

includes following four Product lifecycle stage:

planned maintenance type

maintenance type

planned discontinued type

discontinued type

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