

# 2SK608

## Silicon N Channel Junction Type

For high-frequency amplification

### ■ Features

- Large power gain PG
- Low noise figure NF
- Low small-signal short-circuit input capacitance  $C_{iss}$
- Ideal for front ends of FM tuners
- A MINI type package that allows downsizing of equipment and automatic insertion by taping and magazine packaging

### ■ Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Gate-Drain Voltage	$V_{GDO}$	30	V
Drain Current	$I_D$	20	mA
Gate Current	$I_G$	10	mA
Power Dissipation	$P_D$	200	mW
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ )

Item	Symbol	Condition	min.	typ.	max.	Unit
Gate-Drain Voltage	$V_{GDO}$	$I_G=10\ \mu\text{A}$ , $V_{GS}=0$	30			V
Gate-Source Cutoff Voltage	$V_{GSC}$	$V_{DS}=5\ \text{V}$ , $I_D=10\ \mu\text{A}$			-3	V
Gate Cutoff Current	$I_{GSS}$	$V_{GS}=-0.5\ \text{V}$ , $V_{DS}=0$			10	nA
Drain Current	$I_{DSS}^*$	$V_{DS}=5\ \text{V}$ , $V_{GS}=0$	0.5		20	mA
Mutual Conductance	$g_m$	$V_{DS}=5\ \text{V}$ , $V_{GS}=0$ , $f=1\ \text{kHz}$	5			mS
Input Capacitance	$C_{iss}$	$V_{DS}=5\ \text{V}$ , $V_{GS}=0$ , $f=100\ \text{MHz}$		5.0	8	pF
Small-Signal Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=5\ \text{V}$ , $I_D=1\ \text{mA}$ , $f=1\ \text{MHz}$			0.3	pF
Power Gain	PG	$V_{DS}=5\ \text{V}$ , $V_{GS}=0$ , $f=100\ \text{MHz}$	15	25		dB
Noise Figure	NF	$V_{DS}=5\ \text{V}$ , $V_{GS}=0$ , $f=100\ \text{MHz}$		1.7	3.5	dB

\*  $I_{DSS}$  Ranking

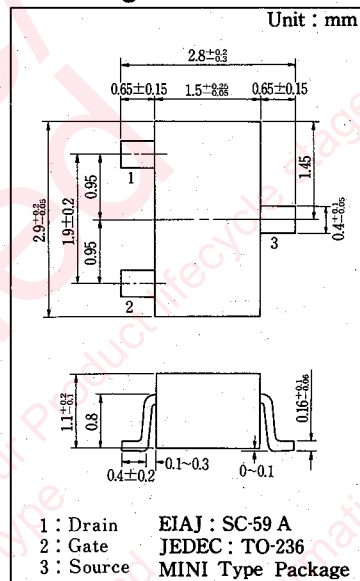
Rank	P	Q	R	S
$I_{DSS}(\text{mA})$	0.5~3	2~7	5~12	10~20
Marking	3LP	3LQ	3LR	3LS

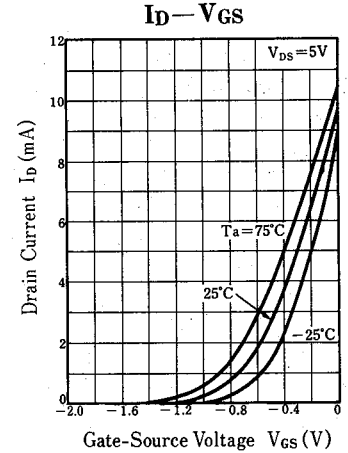
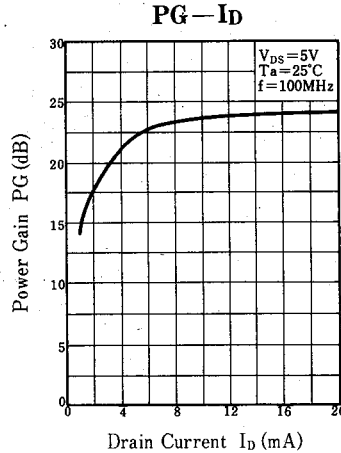
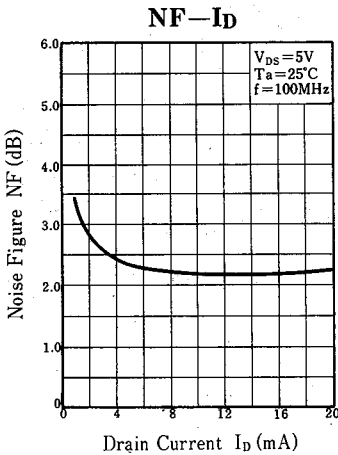
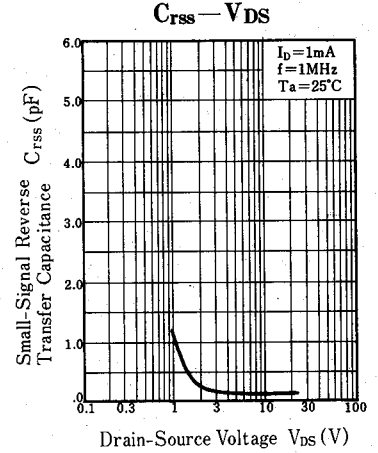
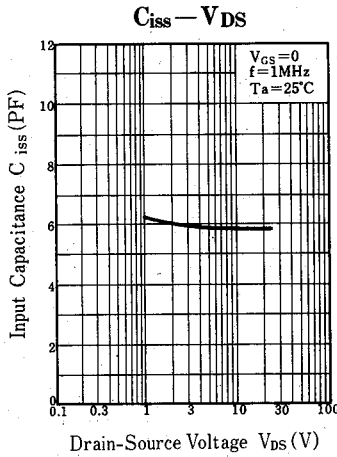
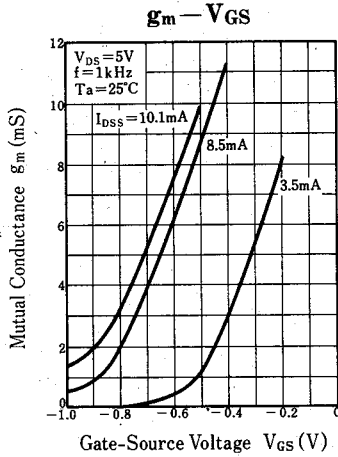
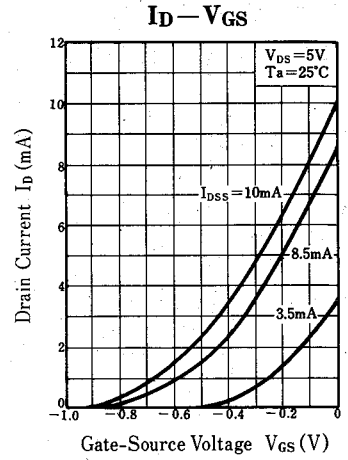
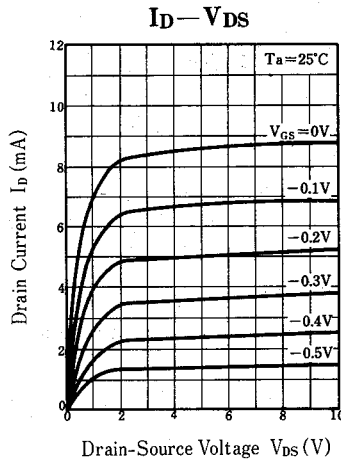
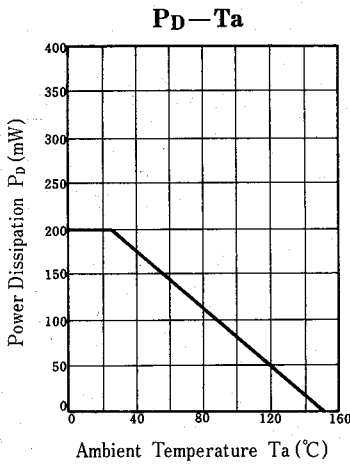
### ■ Type Name Marking (Example)

Type No.  $I_{DSS}$  Ranking



### ■ Package Dimensions





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