

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

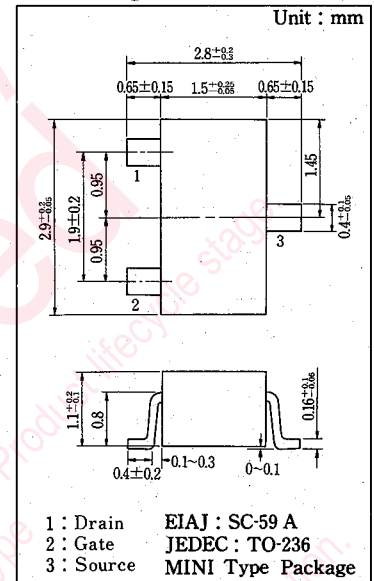
Rank	P	Q	R	S
$I_{DSS}(\text{mA})$	0.5~3	2~7	5~12	10~20
Marking	3LP	3LQ	3LR	3LS

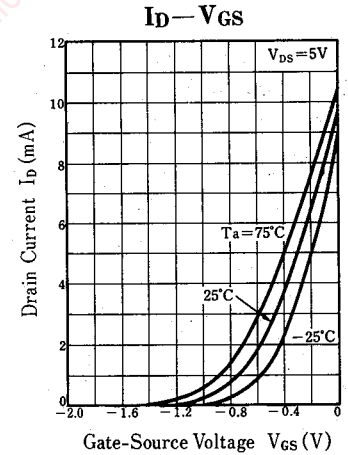
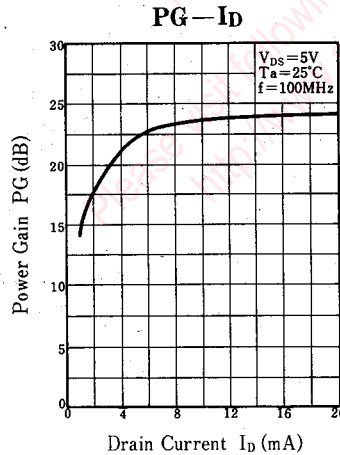
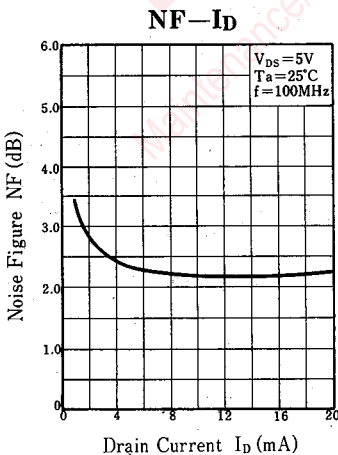
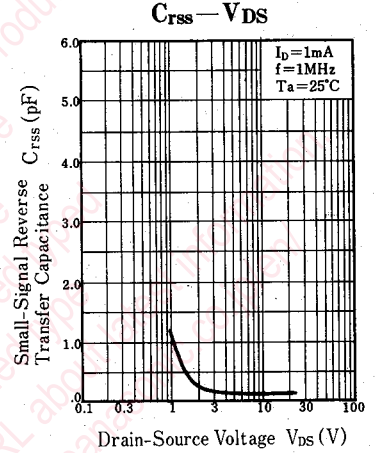
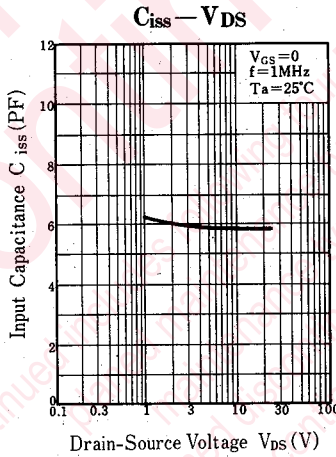
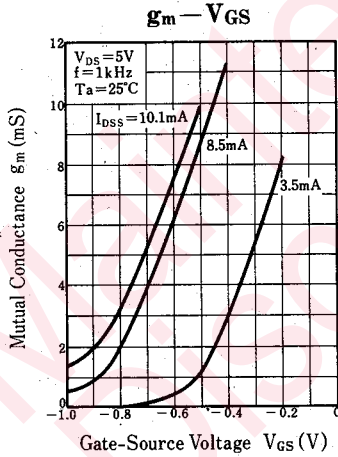
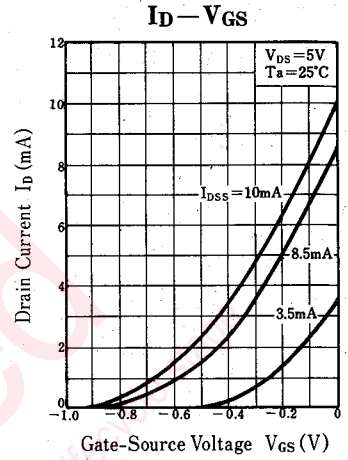
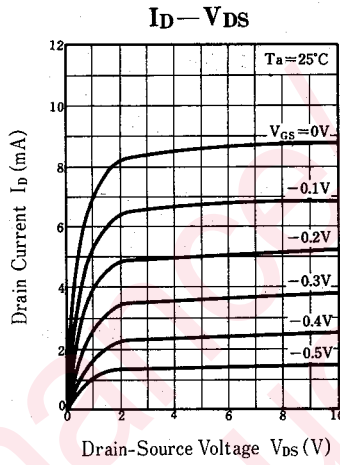
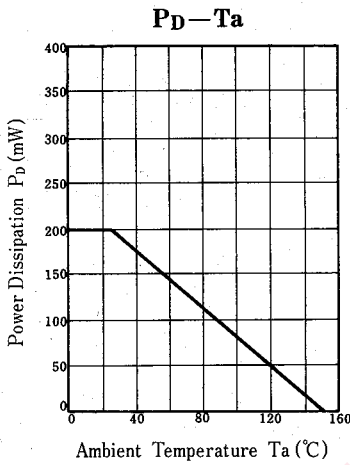
■ Type Name Marking (Example)

Type No. I_{DSS} Ranking



■ Package Dimensions





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