



2SK937

High-Frequency General-Purpose Amplifier Applications

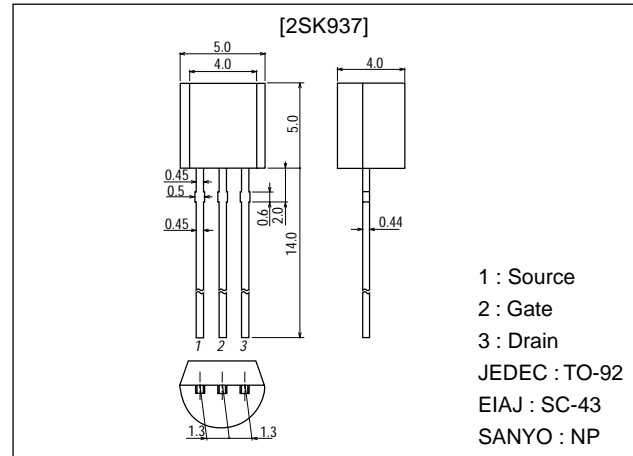
Features

- Adoption of FBET process.
- Large $|y_{fs}|$.
- Small Ciss.

Package Dimensions

unit:mm

2019B



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSX}		40	V
Gate-to-Drain Voltage	V_{GDS}		-40	V
Gate Current	I_G		10	mA
Drain Current	I_D		100	mA
Allowable Power Dissipation	P_D		300	mW
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G=-10\mu A, V_{DS}=0$	-40			V
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=-20V, V_{DS}=0$			-1.0	nA
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=10V, V_{GS}=0$	40*		75*	mA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=100\mu A$	-2.0	-3.0	-5.0	V
Forward Transfer Admittance	$ y_{fs} _1$	$V_{DS}=10V, I_D=10mA, f=1kHz$	10	15		mS
	$ y_{fs} _2$	$V_{DS}=10V, V_{GS}=0, f=1kHz$	22	30		mS

* : The 2SK937 is classified by I_{DSS} as follows (unit : mA) :

40	Y3	52	48	Y4	63	57	Y5	75
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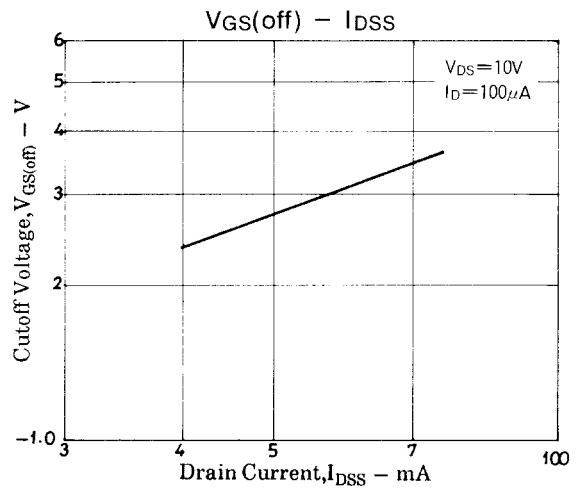
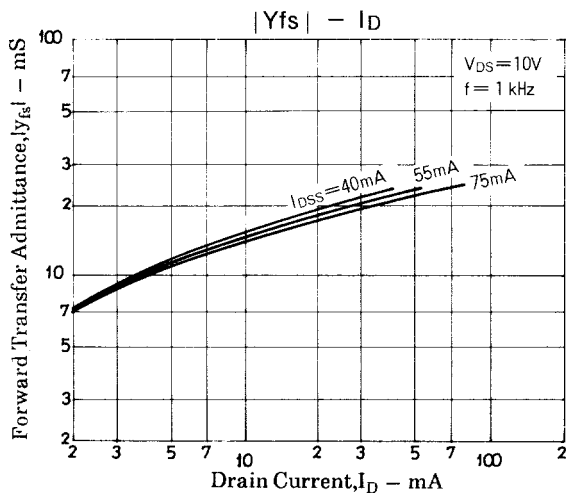
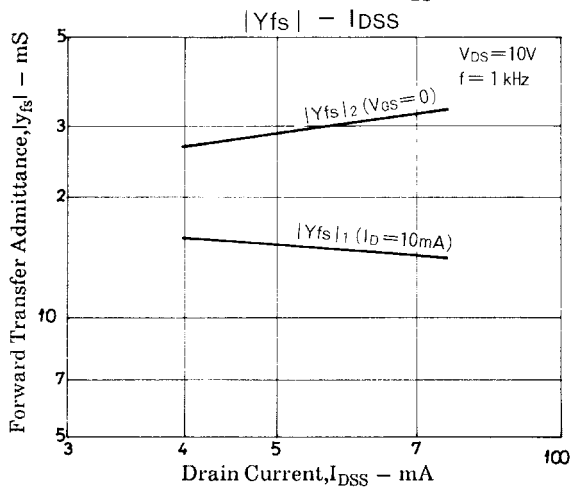
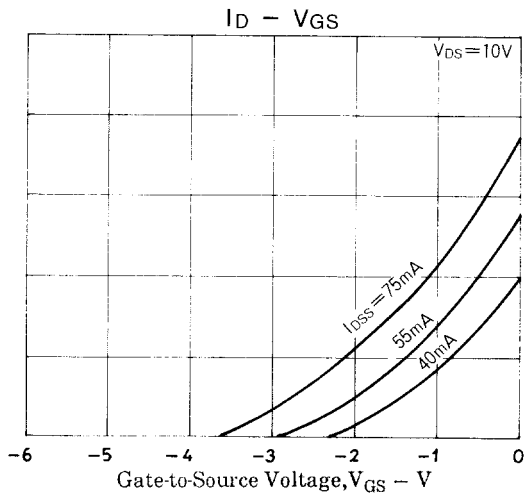
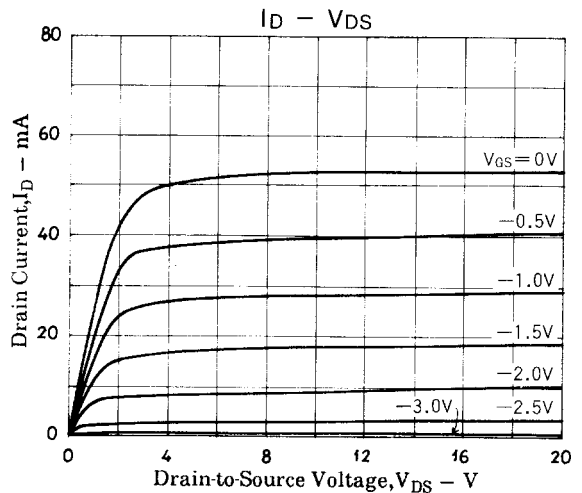
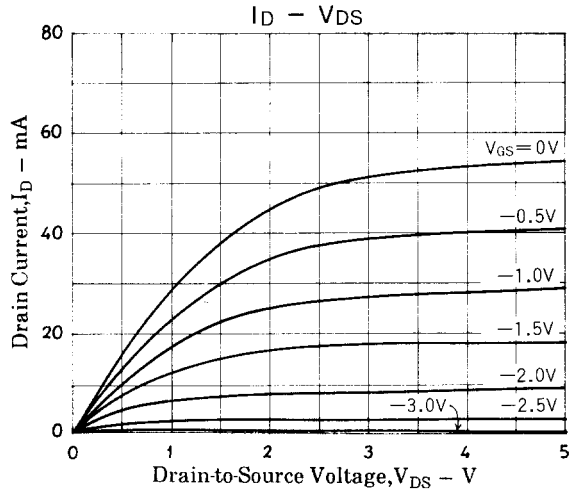
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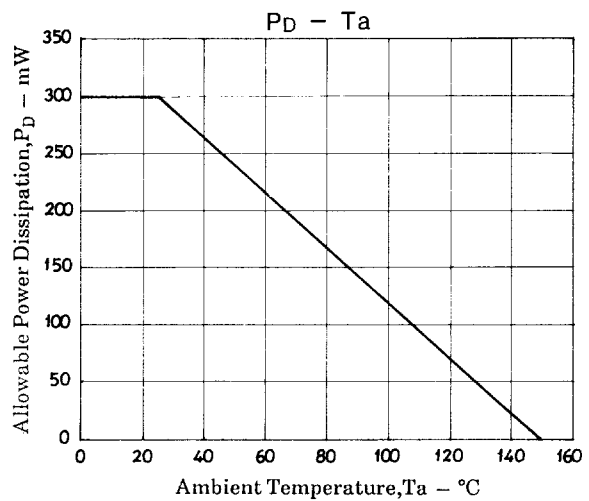
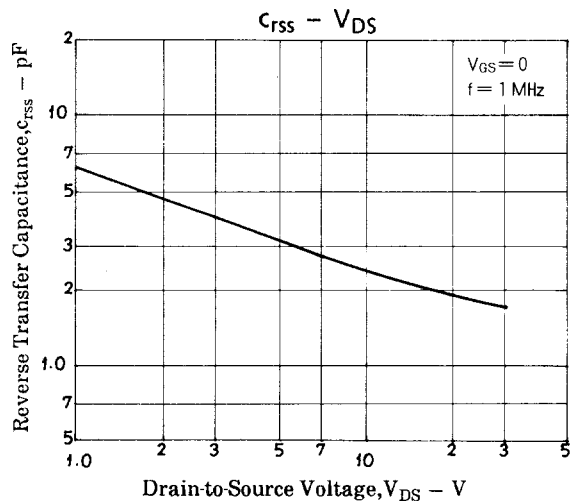
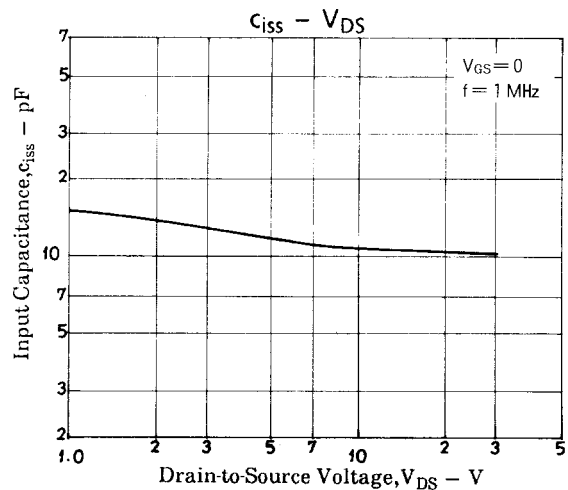
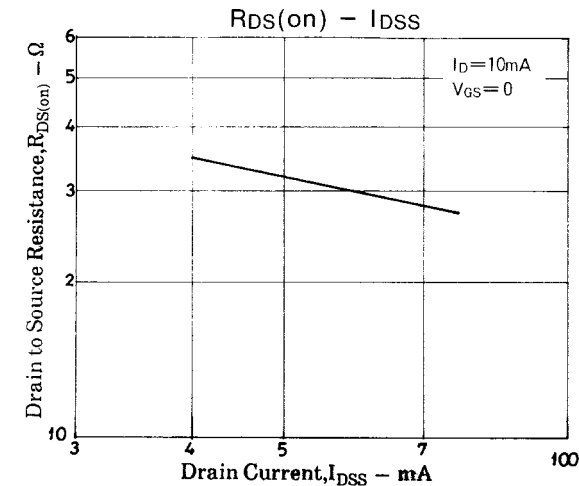
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Parameter	Symbol	Conditions	Ratings	Unit
Input Capacitance	Ciss	V _{DS} =10V, V _{GS} =0, f=1MHz	11	pF
Reverse Transfer Capacitance	Crss	V _{DS} =10V, V _{GS} =0, f=1MHz	2.5	pF
Noise Figure	NF	V _{DS} =10V, R _g =1kΩ, I _D =1mA, f=1kHz	1.5	dB



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