

**2SK932**

## High-Frequency Low-Noise Amplifier Applications

### Applications

- AM tuner RF amplifier, low-noise amplifier.

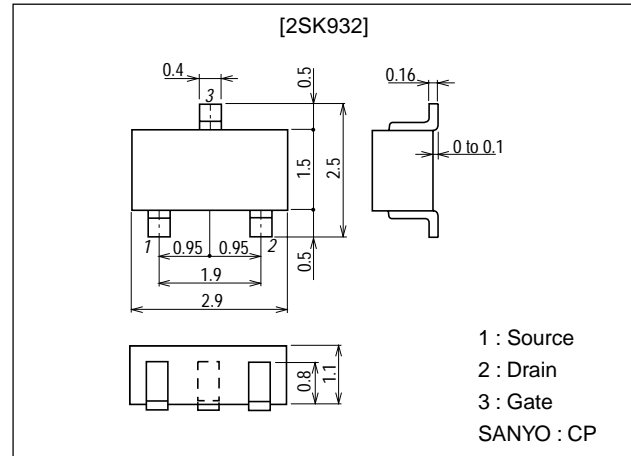
### Features

- Adoption of FBET process.
- Large  $|y_{fs}|$ .
- Small Ciss.
- Ultralow noise figure.
- Ultrasmall-sized package permitting 2SK932-applied sets to be made smaller and slimmer.

### Package Dimensions

unit:mm

2050A



### Specifications

#### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DSX}$		15	V
Gate-to-Drain Voltage	$V_{GDS}$		-15	V
Gate Current	$I_G$		10	mA
Drain Current	$I_D$		50	mA
Allowable Power Dissipation	$P_D$		200	mW
Junction Temperature	$T_J$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

#### Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -10\mu\text{A}$ , $V_{DS} = 0\text{V}$	-15			V
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS} = -10\text{V}$ , $V_{DS} = 0\text{V}$			-1.0	nA
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 5\text{V}$ , $V_{GS} = 0\text{V}$	5.0*		24.0*	mA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 5\text{V}$ , $I_D = 100\mu\text{A}$	-0.2	-0.6	-1.4	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 5\text{V}$ , $V_{GS} = 0\text{V}$ , $f = 1\text{kHz}$	25	50		mS

\* : The 2SK932 is classified by  $I_{DSS}$  as follows (unit : mA) :

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5.0	21	8.5	7.3	22	12.0	10.0	23	17.0	14.5	24	24.0
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(Note) Marking : E

 $I_{DSS}$  rank : 21, 22, 23, 24

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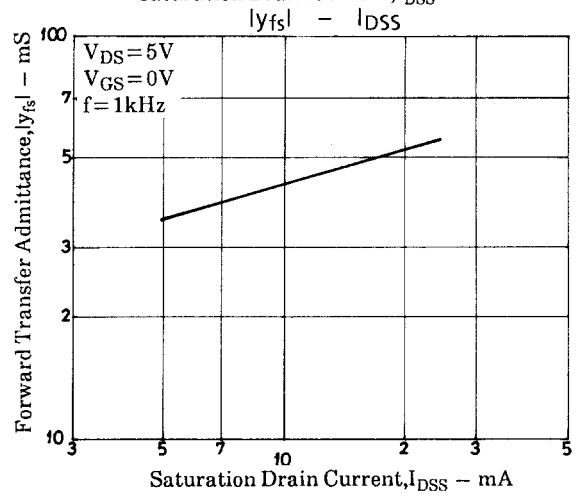
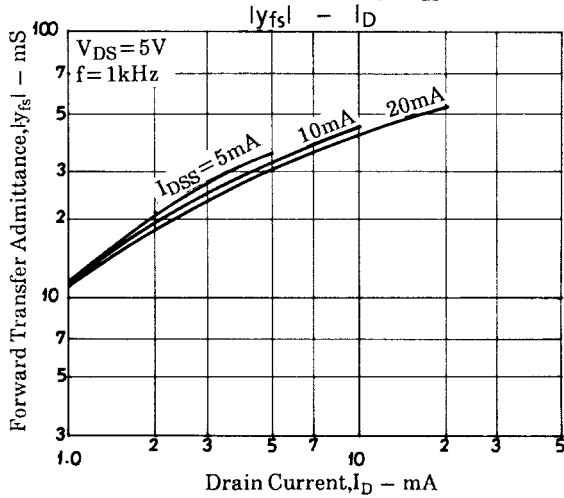
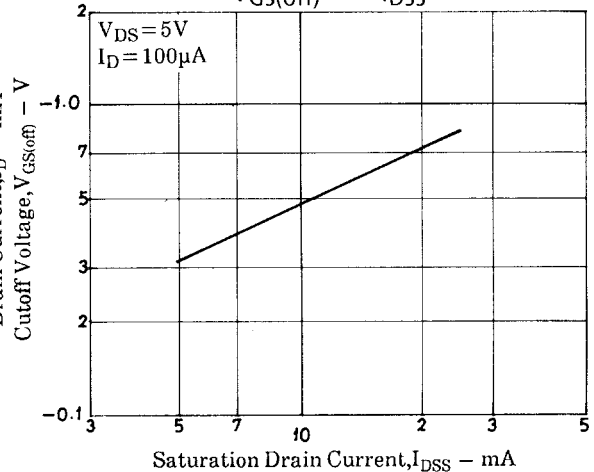
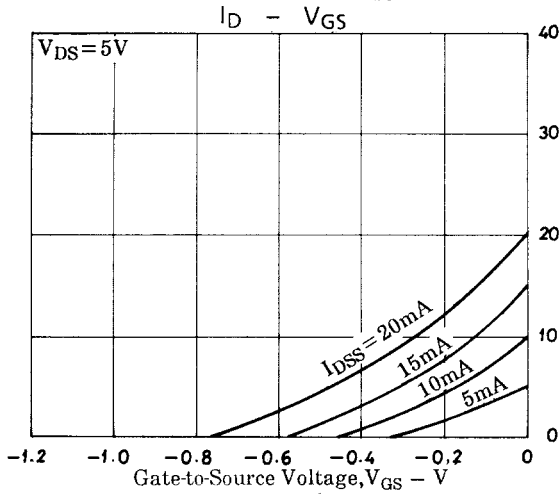
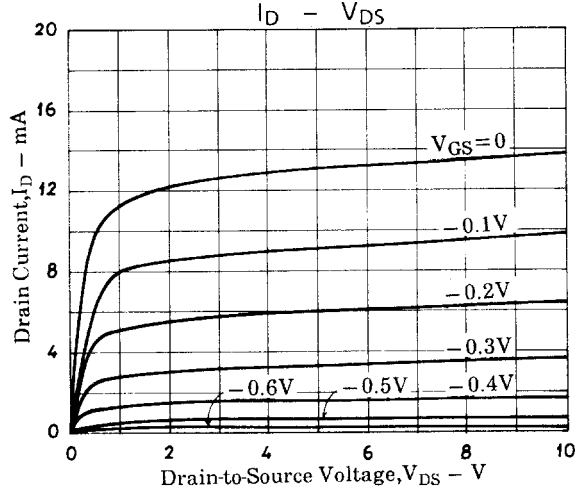
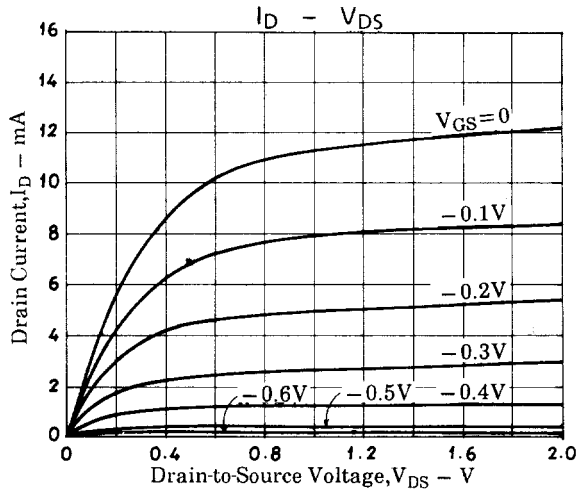
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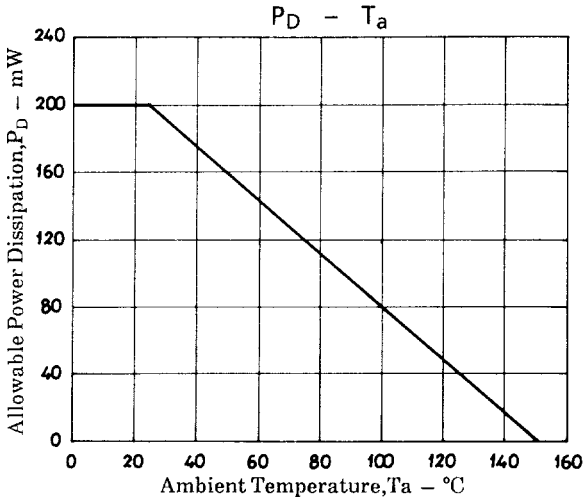
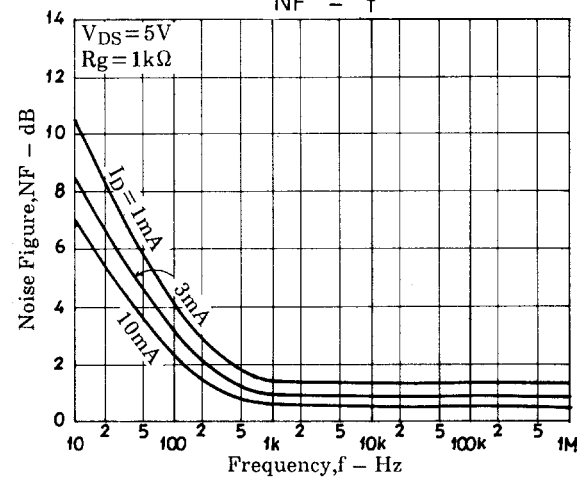
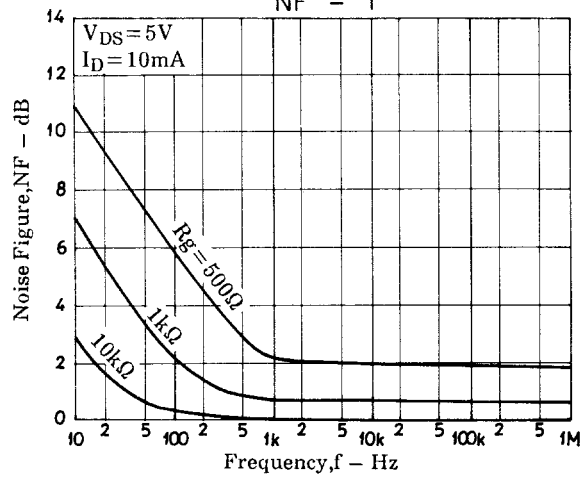
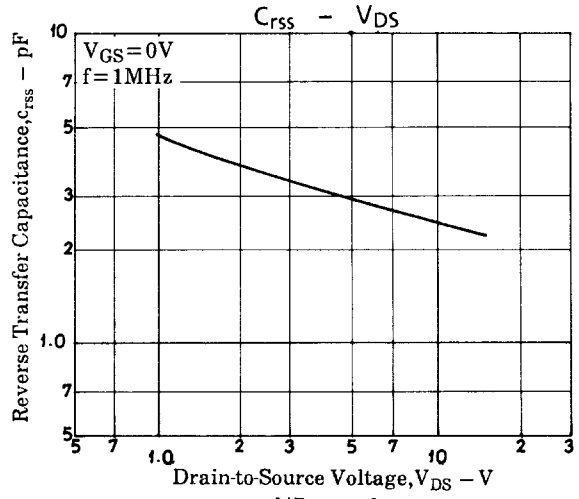
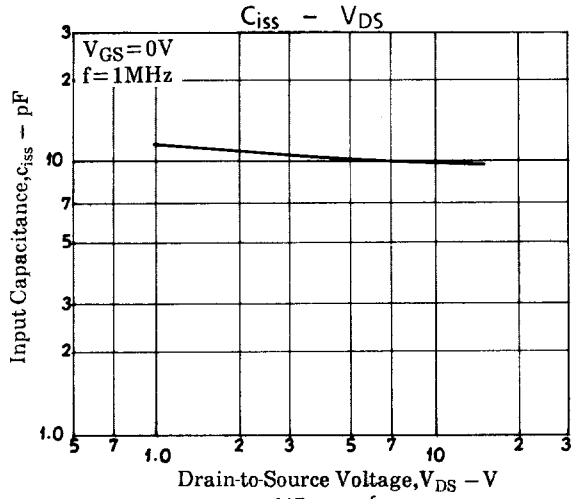
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Parameter	Symbol	Conditions	Ratings	Unit
Input Capacitance	Ciss	V <sub>DS</sub> =5V, V <sub>GS</sub> =0V, f=1MHz	10	pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =5V, V <sub>GS</sub> =0V, f=1MHz	3.0	pF
Noise Figure	NF	V <sub>DS</sub> =5V, R <sub>g</sub> =1kΩ, I <sub>D</sub> =1mA, f=1kHz	1.5	dB



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