

	No.3006	2SK937
		N-Channel Junction Silicon FET High-Frequency General-Purpose Amp Applications

Features

- Adoption of FBET process
- Large $|y_{fs}|$
- Small c_{iss}

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

			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	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

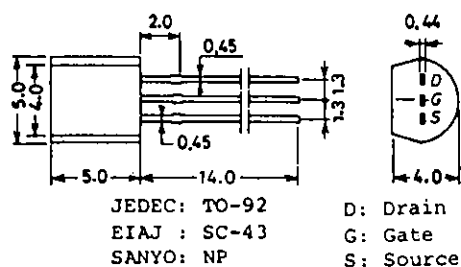
Electrical Characteristics at $T_a = 25^\circ\text{C}$

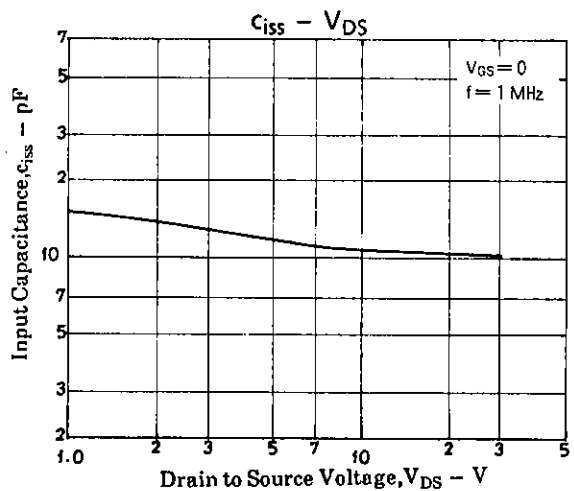
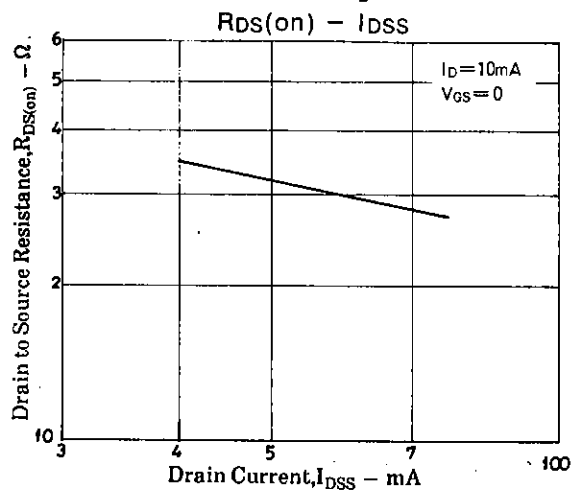
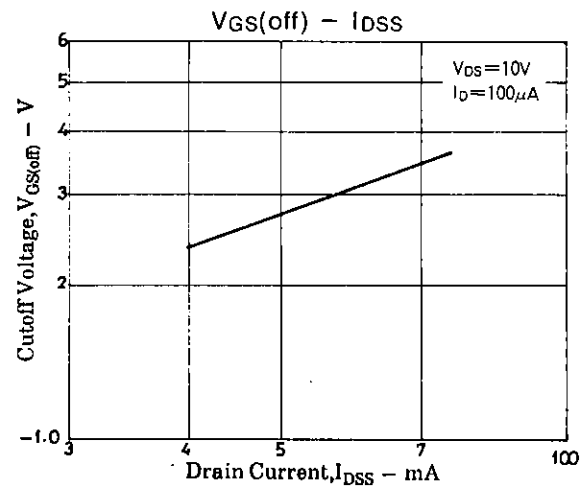
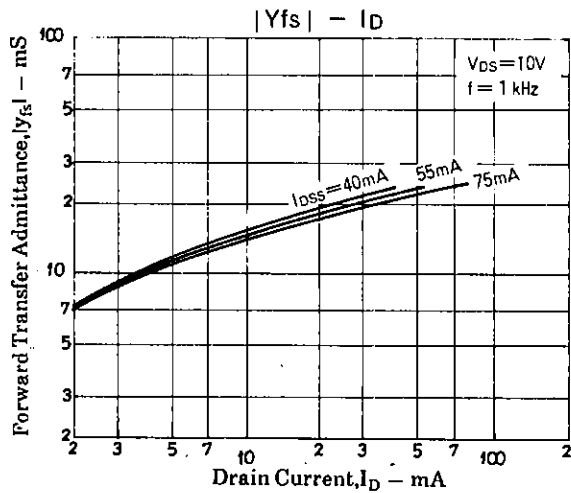
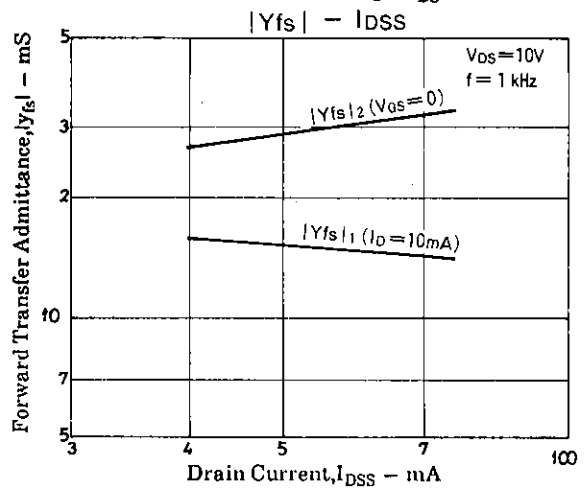
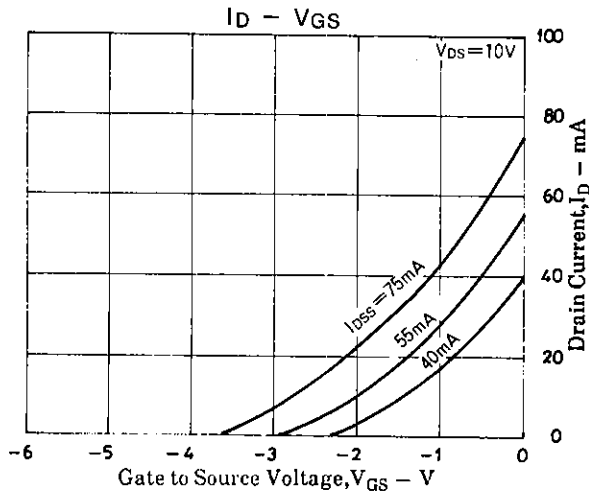
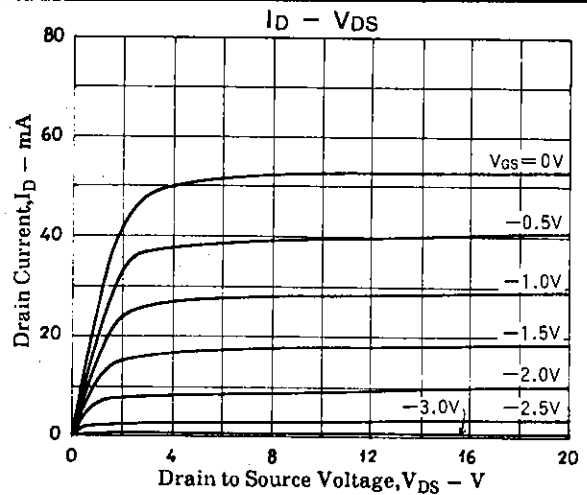
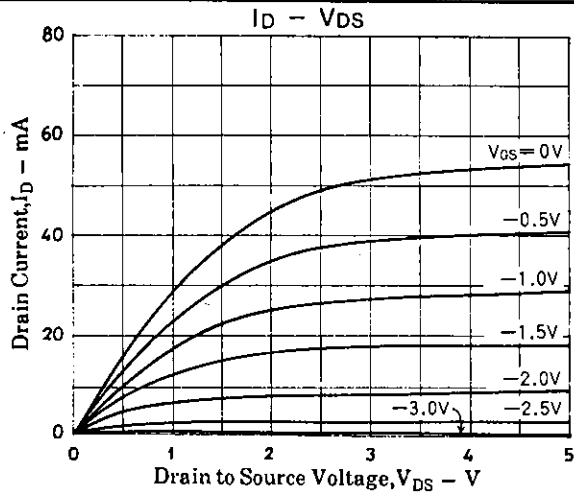
			min	typ	max	unit
Gate to Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -10\mu\text{A}, V_{DS} = 0$	-40			V
Gate Cutoff Current	I_{GSS}	$V_{GS} = -20\text{V}, V_{DS} = 0$			-1.0	nA
Cutoff Voltage	$V_{GS(OFF)}$	$V_{DS} = 10\text{V}, I_D = 100\mu\text{A}$	-2.0	-3.0	-5.0	V
Drain Current	I_{DSS}	$V_{DS} = 10\text{V}, V_{GS} = 0$	40*		75*	mA
Forward Transfer Admittance	$ y_{fs} (1)$	$V_{DS} = 10\text{V}, I_D = 10\text{mA}, f = 1\text{kHz}$	10	15		mS
	$ y_{fs} (2)$	$V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{kHz}$	22	30		mS
Input Capacitance	c_{iss}	$V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$		11		pF
Reverse Transfer Capacitance	c_{rss}	$V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$		2.5		pF
Noise Figure	NF	$V_{DS} = 10\text{V}, R_g = 1\text{k}\Omega, I_D = 1\text{mA}, f = 1\text{kHz}$	1.5			dB

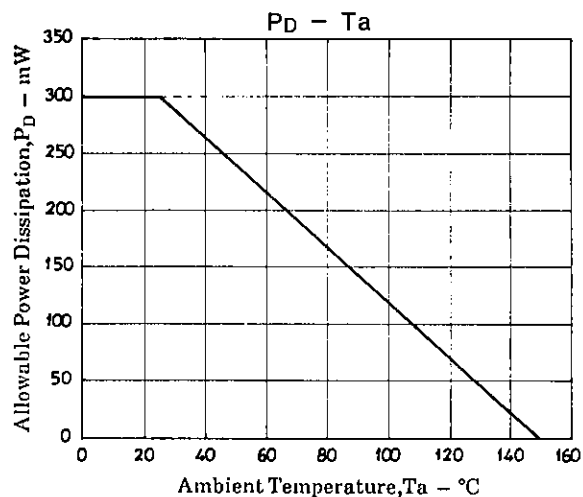
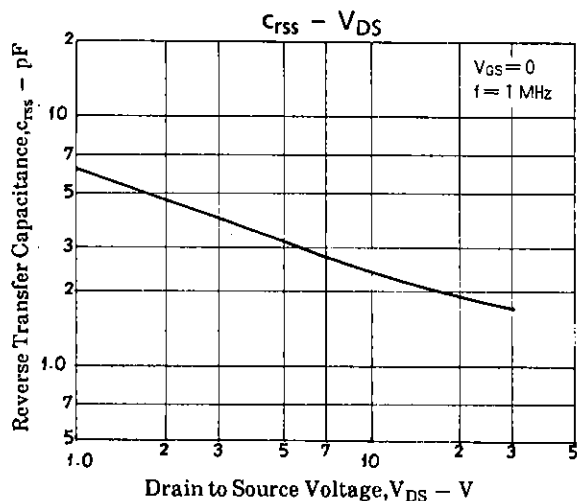
* : The 2SK937 is classified by I_{DSS} as follows (unit : mA) :

40	Y3	52	48	Y4	63	57	Y5	75
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Package Dimensions 2019A (unit: mm)







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