Ordering number: EN2539

No.5075

2SK2539

N-Channel Junction Silicon FET

High-Frequency Amp, Analog Switch Applications

Features

- Large $|y_{fs}|$.
- Small Ciss.
- Small-sized package permitting 2SK2539-applied sets to be made small and slim.
- Adoption of FBET process.

Absolute Maximum Ratings at Ta = 25°C

			unit
Drain-to-Source Voltage	V_{DSX}	15	V
Gate-to-Drain Voltage	V_{GDS}	−15	V
Gate Current	I_G	5	mA
Drain Current	I_D	50	mA
Allowable Power Dissipation	P_D	200	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55 to +150	°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
G-D Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -10\mu A, V_{DS} = 0$	−15			V
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = -10V, V_{DS} = 0$			−1.0	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 5V, I_D = 10\mu A$	−0.6	−1.4	−3.0	V
Drain Current	I_{DSS}	$V_{DS} = 5V, V_{GS} = 0$	10.0※		50.0※	mA
Forward Transfer Admittance	$\|y_{fs}\|$ 1	$V_{DS} = 5V, I_D = 10mA, f = 1kHz$	14	21		mS
	$\|y_{fs}\|$ 2	$V_{DS} = 5V, V_{GS} = 0, f = 1kHz$	14	29		mS
Input Capacitance	Ciss	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		4.9		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		1.4		pF

※ : The 2SK2539 is classified by I_{DSS} as follows : (unit : mA)

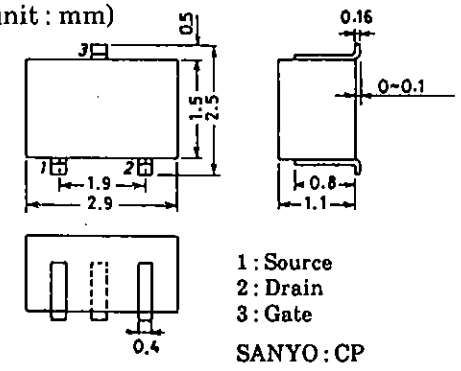
10.0 6 20.0	16.0 7 32.0	25.0 8 50.0

Marking : AK

I_{DSS} rank : 6, 7, 8

Package Dimensions 2050A

(unit : mm)

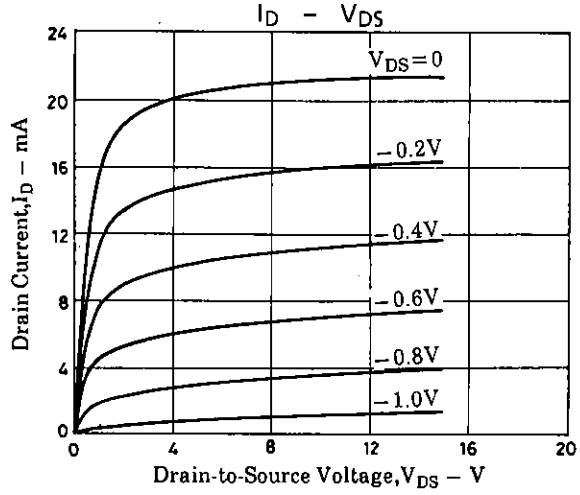


1 : Source
2 : Drain
3 : Gate

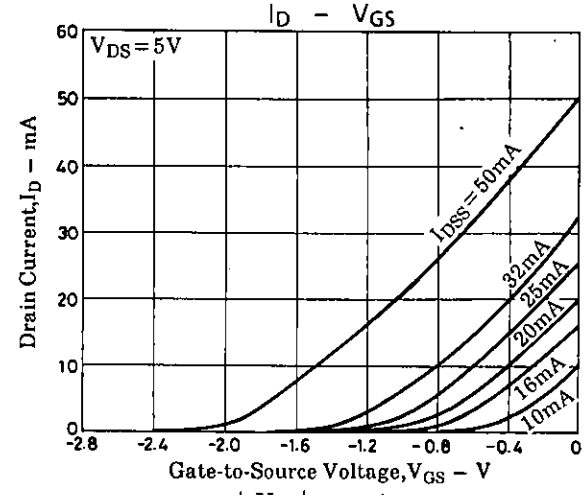
SANYO : CP

SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

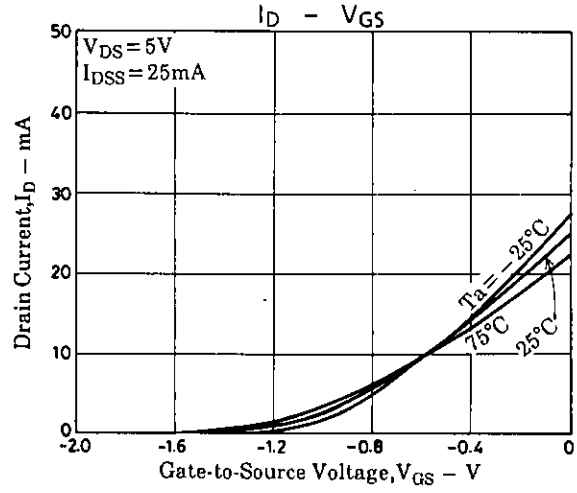
I_D – V_{DS}



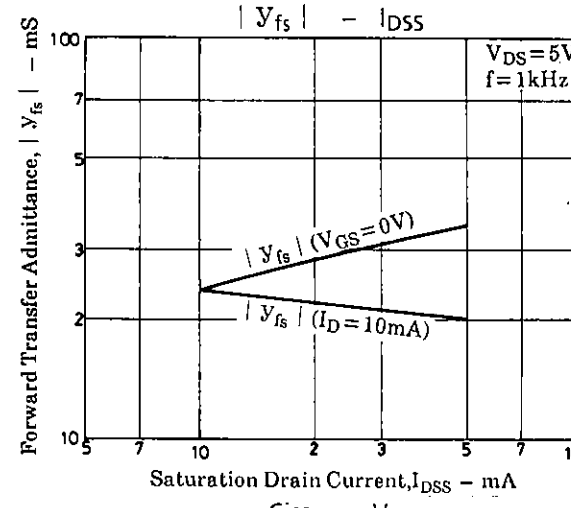
I_D – V_{GS}



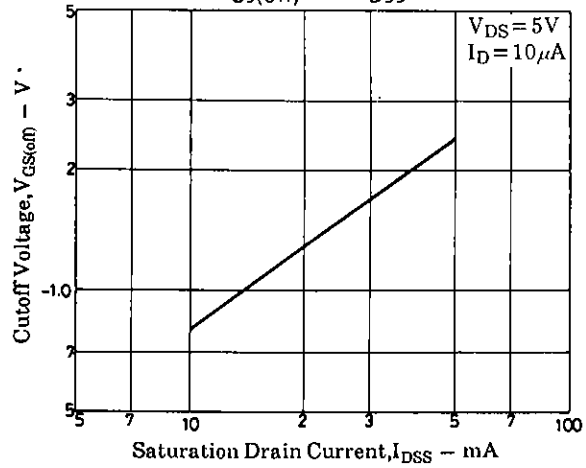
I_D – V_{GS}



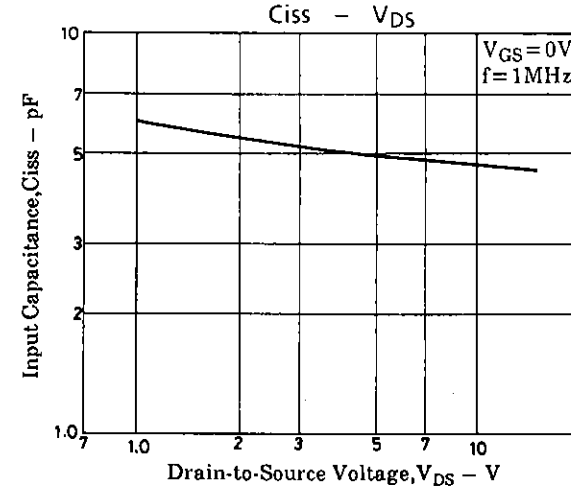
$|y_{fs}|$ – I_{DSS}



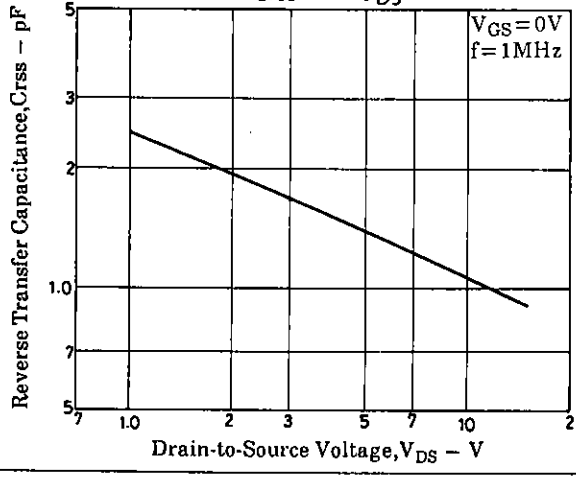
$V_{GS(off)}$ – I_{DSS}



Ciss – V_{DS}



Crss – V_{DS}



P_D – Ta