SANYO

No.1419B

2SK443

N-Channel Junction Silicon Field-Effect Transistor

Video Camera First-Stage Applications

Features

- Large $|y_{fs}|$.
- Small Ciss.
- Very low noise figure.
- Very small-sized package permitting 2SK443-applied sets to be small-sized.

Absolute Maximum Ratings at Ta = 25°C

			unit
Drain-to-Source Voltage	V_{DSS}	15	V
Gate-to-Drain Voltage	V_{GDS}	−15	V
Gate Current	I_G	10	mA
Drain Current	I_D	50	mA
Power Dissipation	P_D	200	mW
Junction Temperature	Tj	125	°C
Storage Temperature	Tstg	−55 to +125	°C

Electrical Characteristics at Ta = 25°C

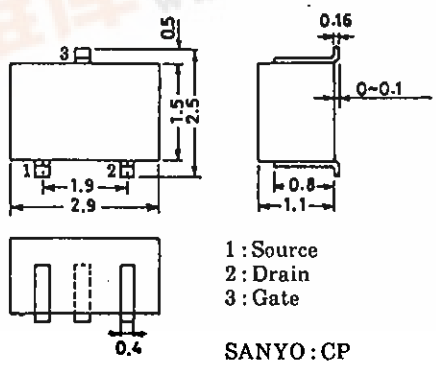
			min	typ	max	unit
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	I_D = 10μA, V_{DS} = 0	−15			V
Common-Source Gate Cutoff Current	I_{GSS}	V_{GS} = −10V, V_{DS} = 0			−1.0	nA
Gate-to-Source Cutoff Voltage	$V_{GS(off)}$	V_{DS} = 5V, I_D = 100μA		−0.9	−2.0	V
Drain Current	I_{DSS}	V_{DS} = 5V, V_{GS} = 0	5.0※		38.0※	mA
Forward Transfer Admittance	$\|y_{fs}\|$	V_{DS} = 5V, V_{GS} = 0, f = 1kHz	20	30		mS
Input Capacitance	Ciss	V_{DS} = 5V, V_{GS} = 0, f = 1MHz		9.0		pF
Reverse Transfer Capacitance	Crss	V_{DS} = 5V, V_{GS} = 0, f = 1MHz		2.8		pF
Noise Figure	NF	V_{DS} = 5V, Rg = 1kΩ, I_D = 1mA, f = 1kHz		1.5		dB

※ The 2SK443 is classified by I_{DSS} as follows (unit : mA) :

5.0 5 12.0	10.0 6 24.0	16.0 7 38.0

(Note) Marking : AJ
I_{DSS} rank : 5, 6, 7

Package Dimensions 2050A
(unit : mm)

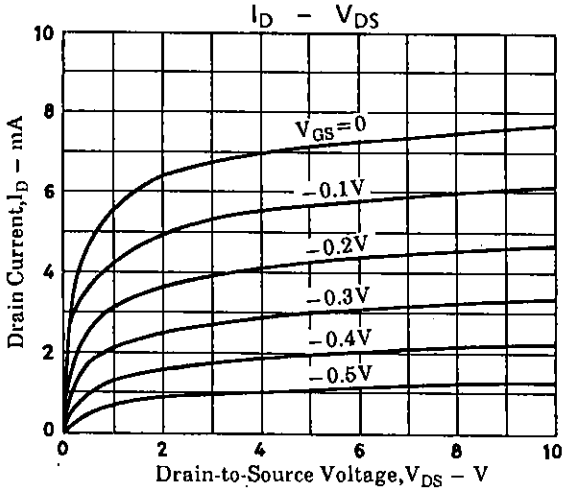


1 : Source
2 : Drain
3 : Gate

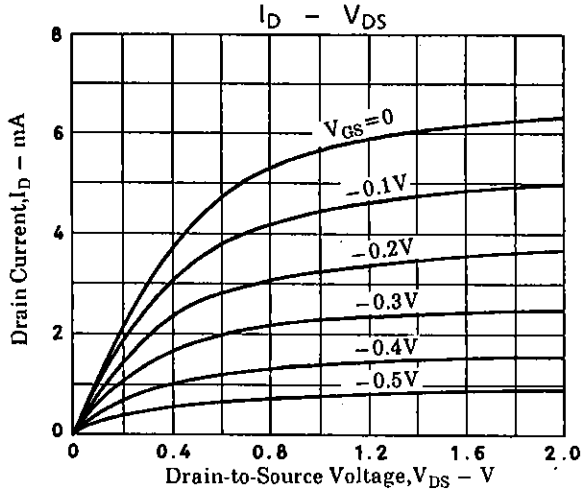
SANYO : CP

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

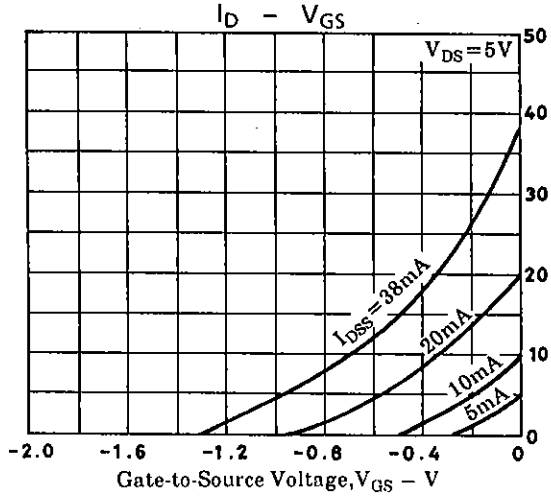
I_D – V_{DS}



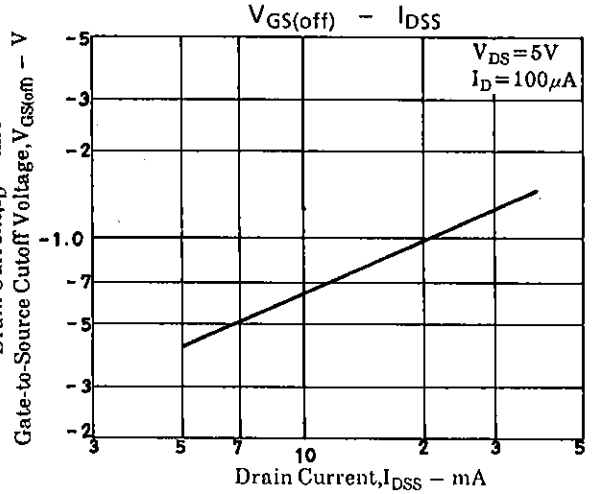
I_D – V_{DS}



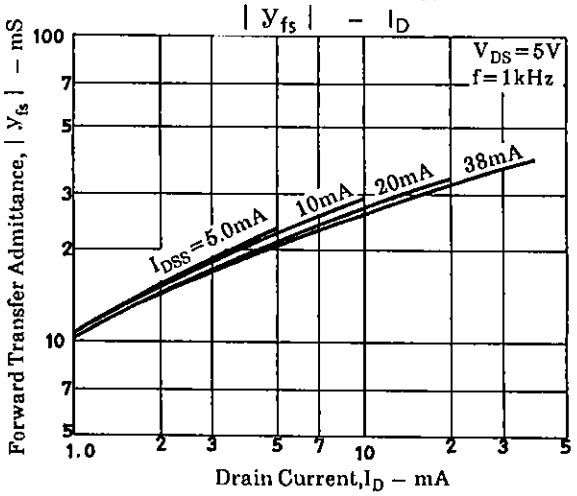
I_D – V_{GS}



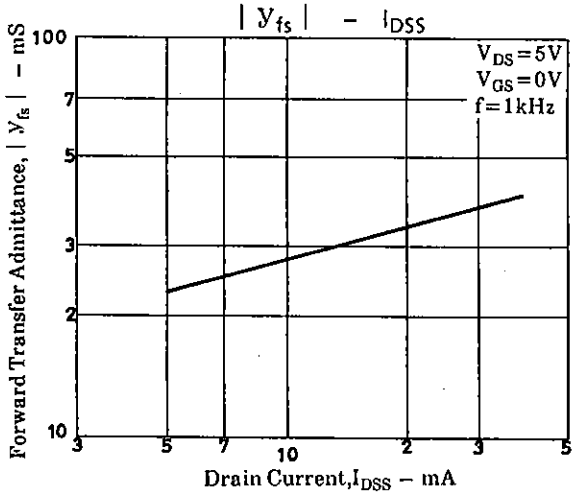
$V_{GS(off)}$ – I_{DSS}



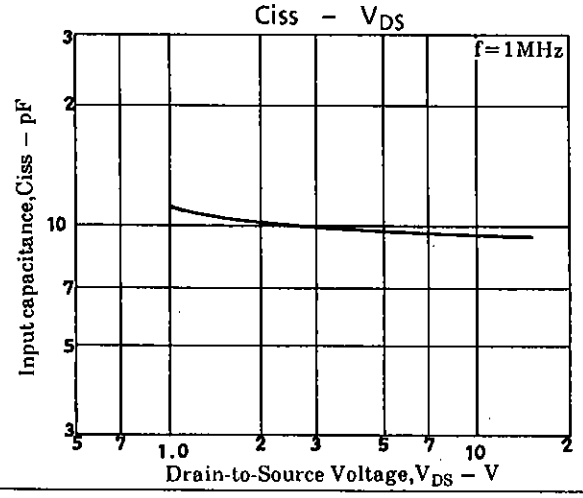
$|y_{fs}|$ – I_D



$|y_{fs}|$ – I_{DSS}



Ciss – V_{DS}



Crss – V_{DS}