Ordering number: EN 2747

SANYO

No.2747

2SK1066

N-Channel Junction Silicon FET

High-Frequency General-Purpose Amp Applications

Applications

- High-frequency general-purpose amp
- AM tuner RF amp
- Low-noise amp

Features

- Large $|y_{fs}|$
- Small c_{rss}
- Very low noise figure
- Very small-sized package permitting 2SK1066-applied sets to be made smaller and slimmer

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	10	mA
Drain Current	I_D	20	mA
Allowable Power Dissipation	P_D	150	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55 to +150	°C

Electrical Characteristics at Ta = 25°C

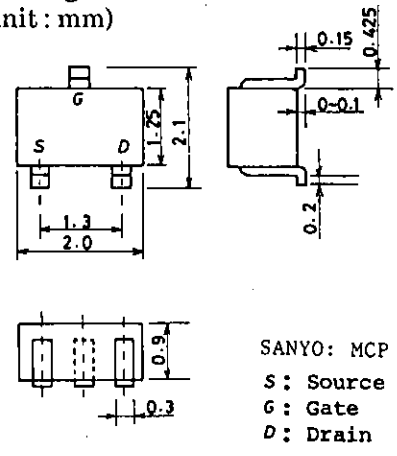
			min	typ	max	unit
Gate to Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -10\mu A, V_{DS} = 0$	−15			V
Gate Cutoff Current	I_{GSS}	$V_{GS} = -10V, V_{DS} = 0$			−1.0	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 5V, I_D = 100\mu A$	−0.2	−0.5	−1.5	V
Drain Current	I_{DSS}	$V_{DS} = 5V, V_{GS} = 0$	※3.5		※12.0	mA
Forward Transfer Admittance	$\|y_{fs}\|$	$V_{DS} = 5V, V_{GS} = 0, f = 1kHz$	10	17		mS
Input Capacitance	c_{iss}	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		7.0		pF
Reverse Transfer Capacitance	c_{rss}	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		2.0		pF
Noise Figure	NF	$V_{DS} = 5V, Rg = 1k\Omega, I_D = 1mA, f = 1kHz$		1.5		dB

※ : The 2SK1066 is classified by I_{DSS} as follows (unit : mA) :

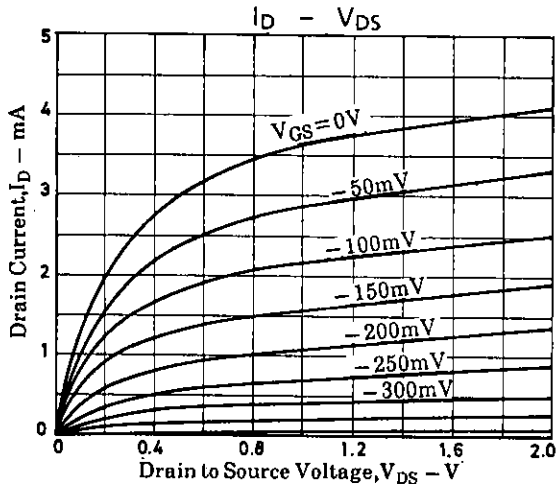
3.5 20 6.0	5.0 21 8.5	7.3 22 12.0

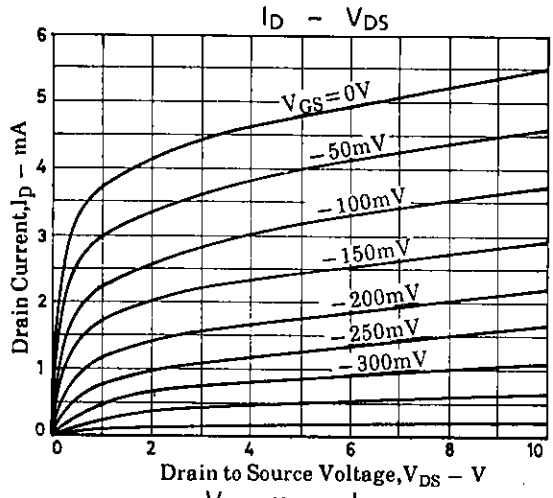
(Note) Marking : A
I_{DSS} rank : 20,21,22
●For CP package version, use the 2SK436.

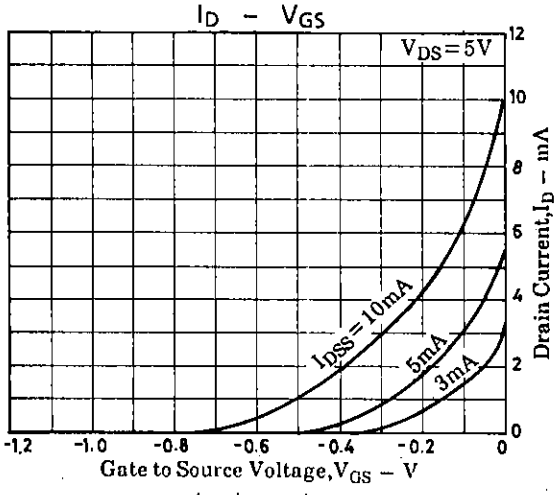
Package Dimensions 2058
(unit : mm)

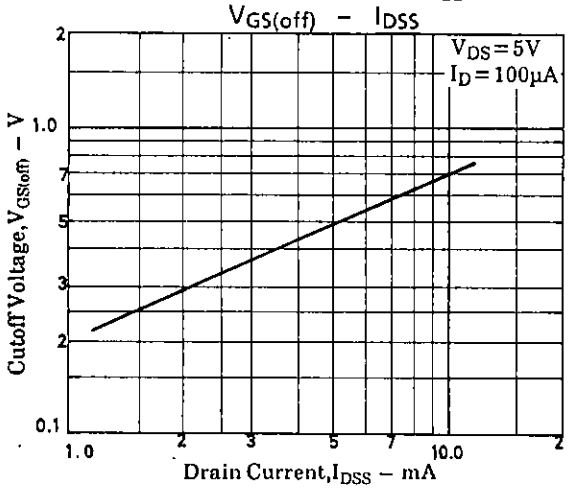


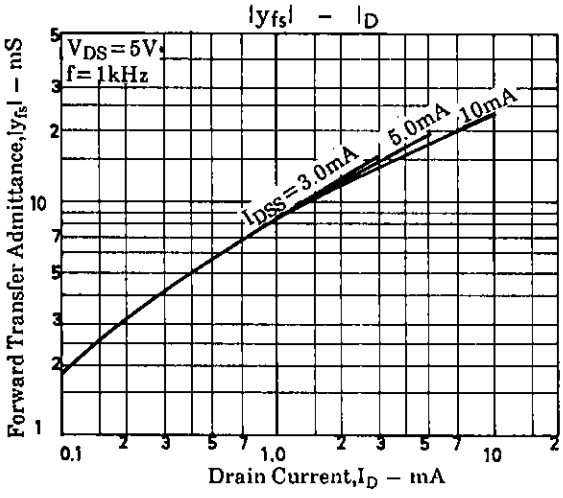
SANYO: MCP
S : Source
G : Gate
D : Drain

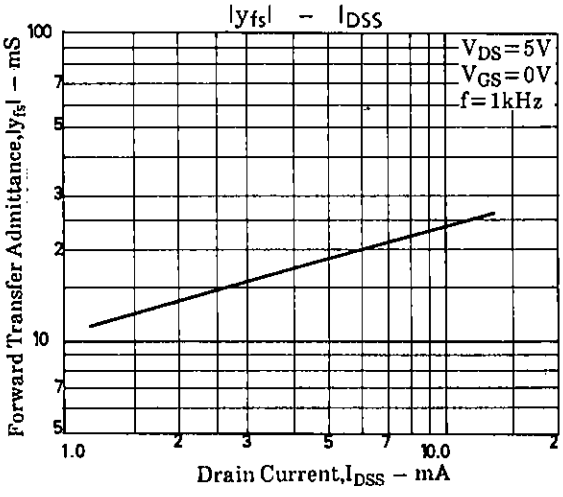

ID – VDS
VGS=0V
–50mV
–100mV
–150mV
–200mV
–250mV
–300mV
Drain Current, ID – mA
Drain to Source Voltage, VDS – V

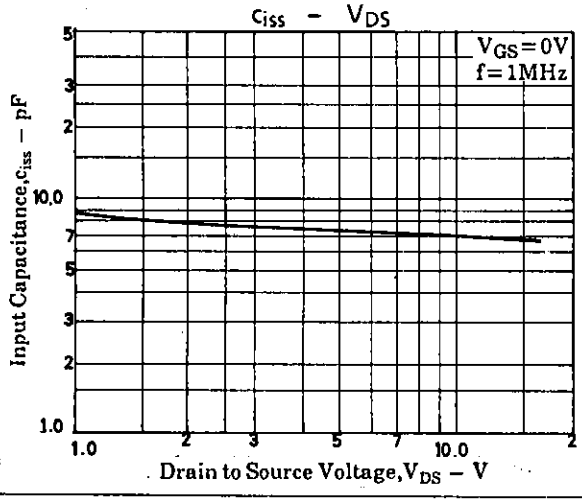

ID – VDS
VGS=0V
–50mV
–100mV
–150mV
–200mV
–250mV
–300mV
Drain Current, ID – mA
Drain to Source Voltage, VDS – V

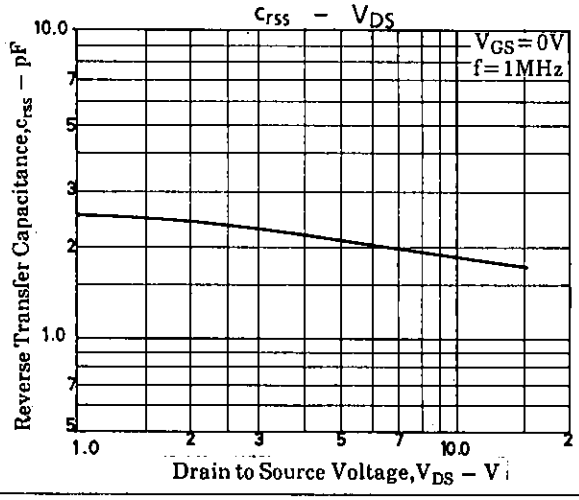

ID – VGS
VDS=5V
IDSS=10mA
5mA
3mA
Drain Current, ID – mA
Gate to Source Voltage, VGS – V


VGS(off) – IDSS
VDS=5V
ID=100μA
Cutoff Voltage, VGS(off) – V
Drain Current, IDSS – mA

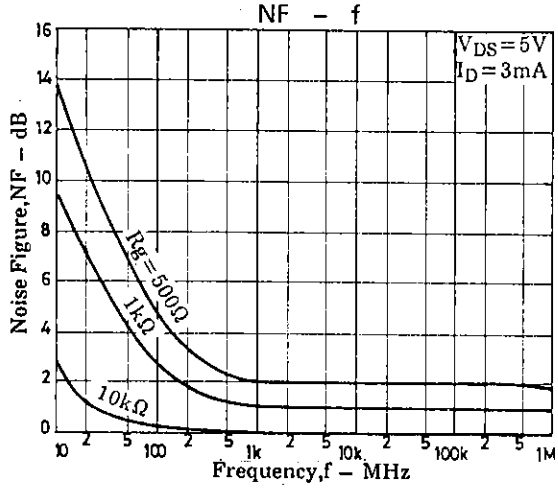

|yfs| – ID
VDS=5V
f=1kHz
IDSS=3.0mA
5.0mA
10mA
Forward Transfer Admittance, |yfs| – mS
Drain Current, ID – mA


|yfs| – IDSS
VDS=5V
VGS=0V
f=1kHz
Forward Transfer Admittance, |yfs| – mS
Drain Current, IDSS – mA

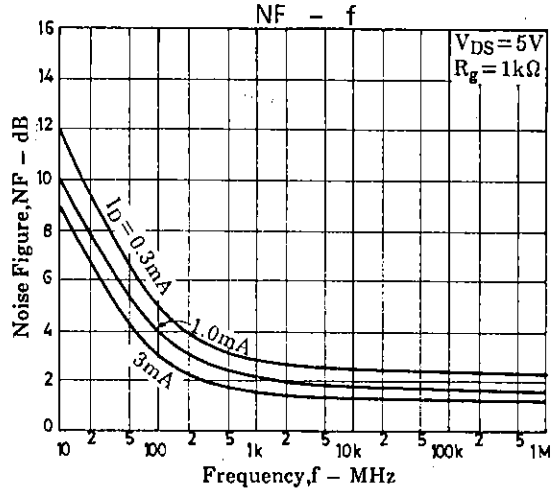

Ciss – VDS
VGS=0V
f=1MHz
Input Capacitance, Ciss – pF
Drain to Source Voltage, VDS – V


Crss – VDS
VGS=0V
f=1MHz
Reverse Transfer Capacitance, Crss – pF
Drain to Source Voltage, VDS – V

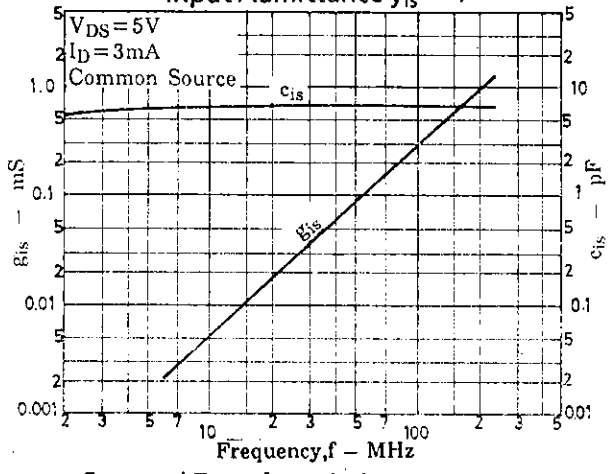
NF – f



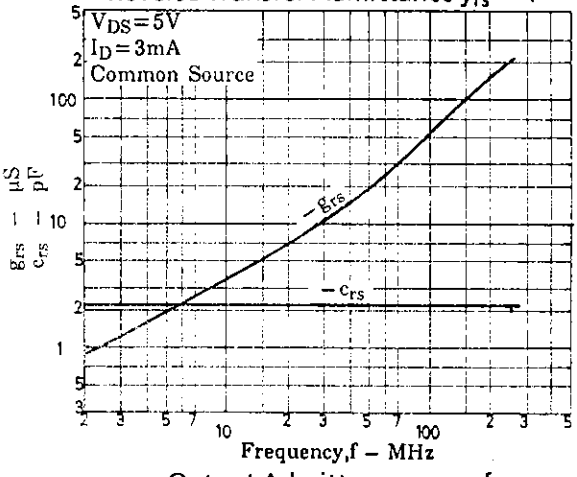
NF – f



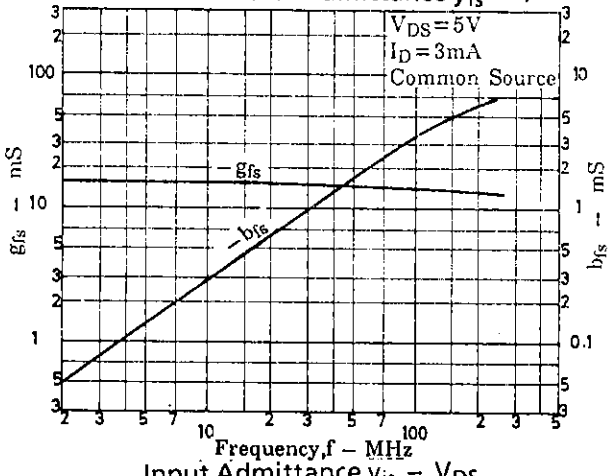
Input Admittance y_{is} – f



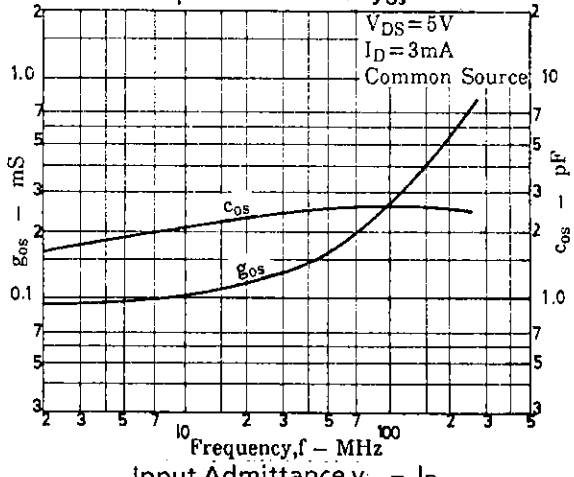
Reverse Transfer Admittance y_{rs} – f



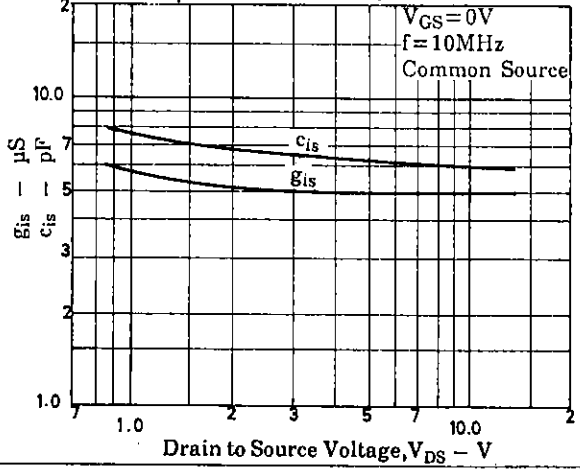
Forward Transfer Admittance y_{fs} – f



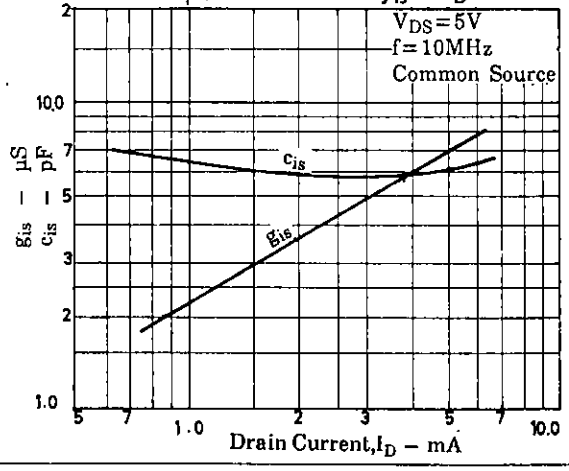
Output Admittance y_{os} – f



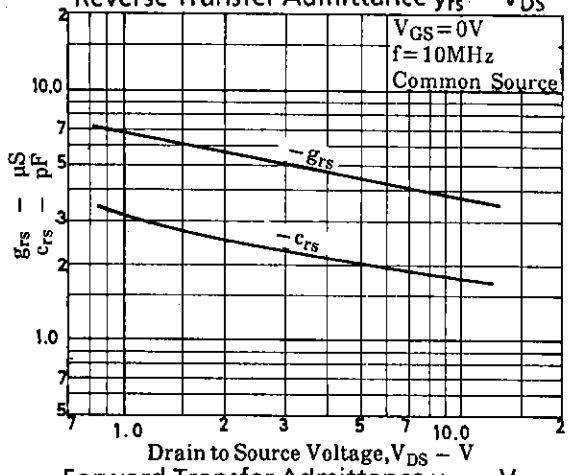
Input Admittance y_{is} – V_{DS}



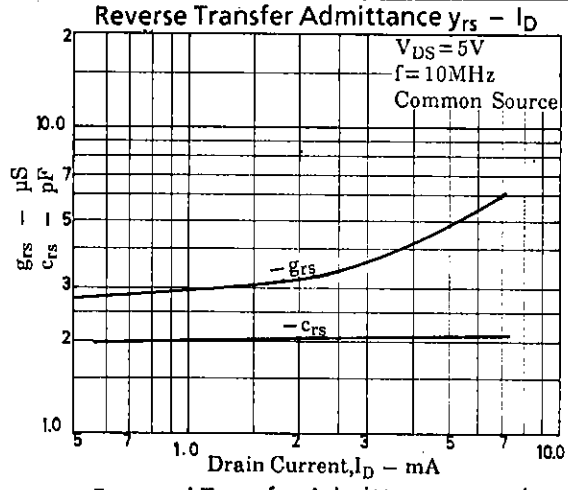
Input Admittance y_{is} – I_D



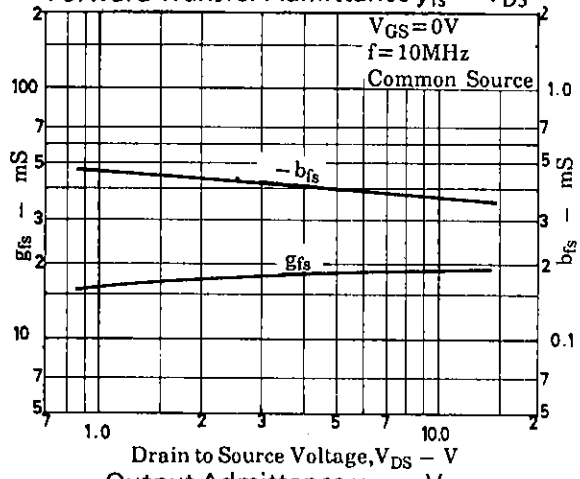
Reverse Transfer Admittance y_{rs} – V_{DS}



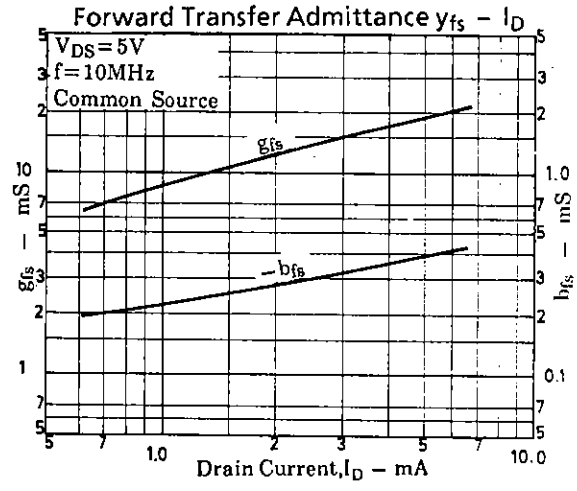
Reverse Transfer Admittance y_{rs} – I_D



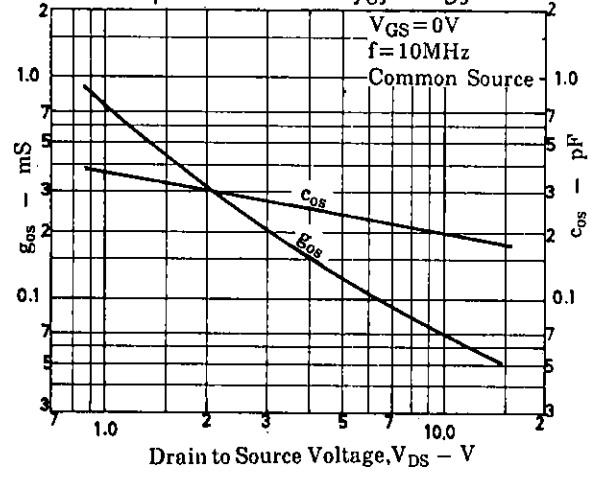
Forward Transfer Admittance y_{fs} – V_{DS}



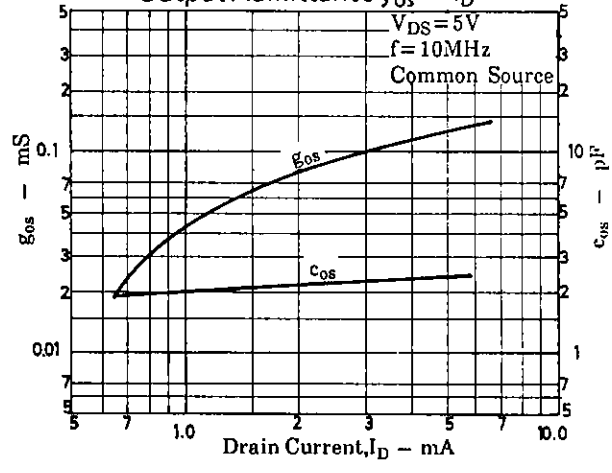
Forward Transfer Admittance y_{fs} – I_D



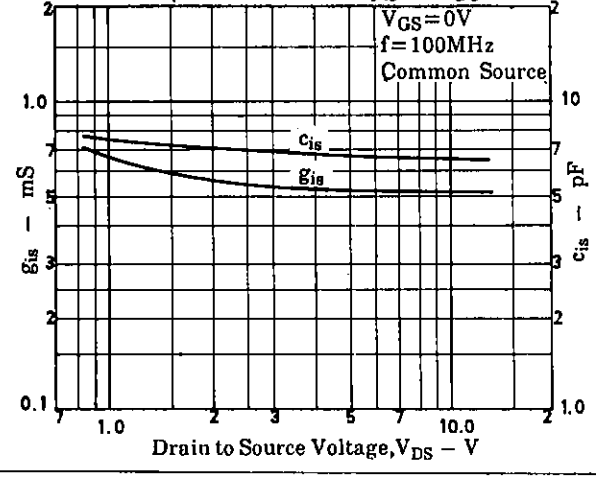
Output Admittance y_{os} – V_{DS}



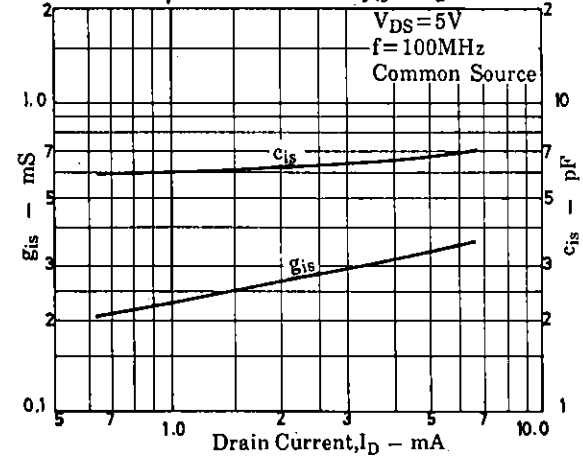
Output Admittance y_{os} – I_D



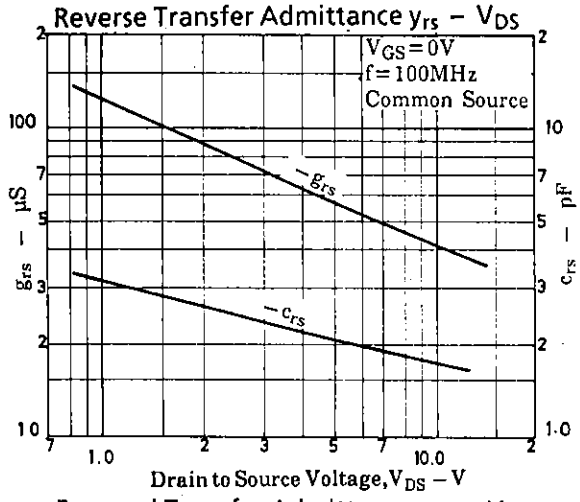
Input Admittance y_{is} – V_{DS}



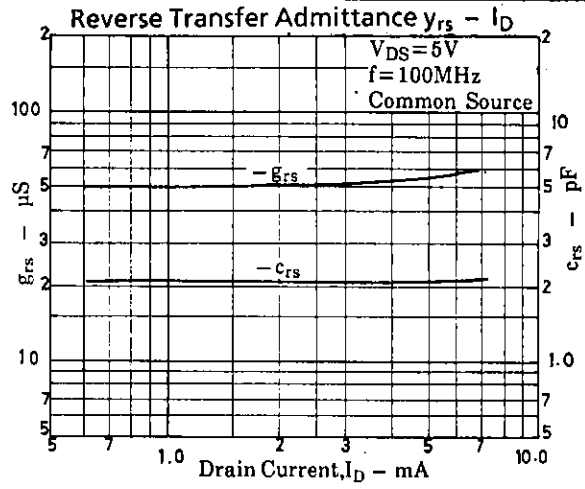
Input Admittance y_{is} – I_D



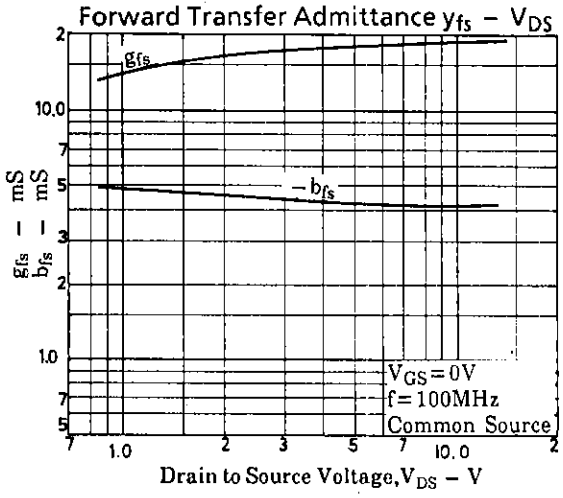
Reverse Transfer Admittance y_{rs} – V_{DS}



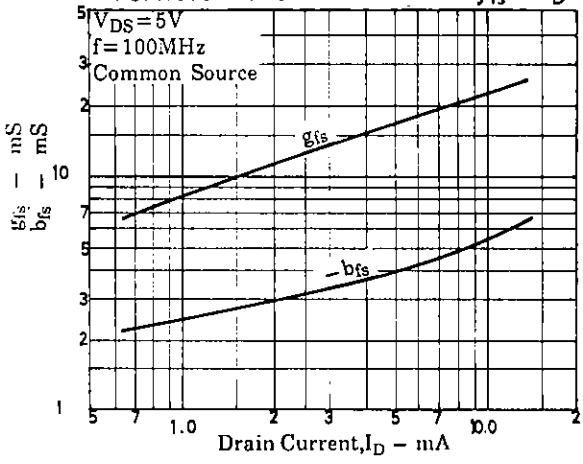
Reverse Transfer Admittance y_{rs} – I_D



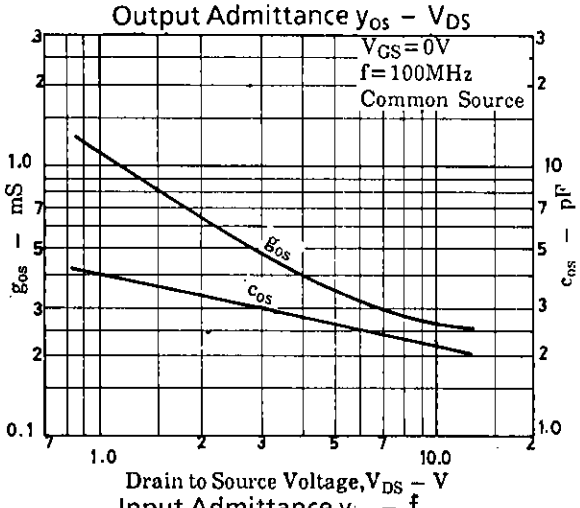
Forward Transfer Admittance y_{fs} – V_{DS}



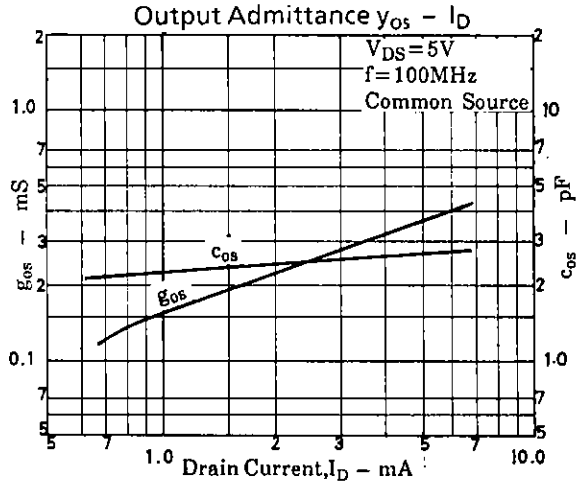
Forward Transfer Admittance y_{fs} – I_D



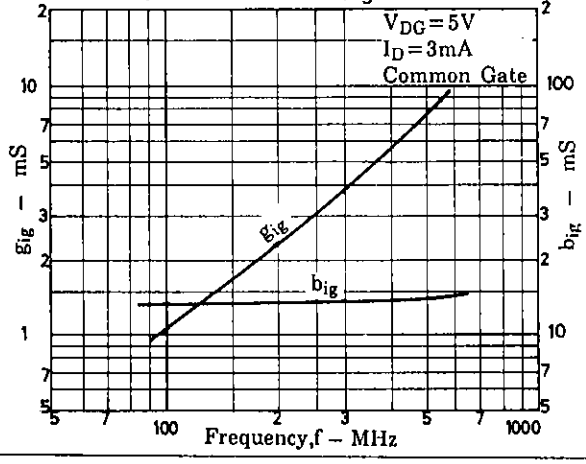
Output Admittance y_{os} – V_{DS}



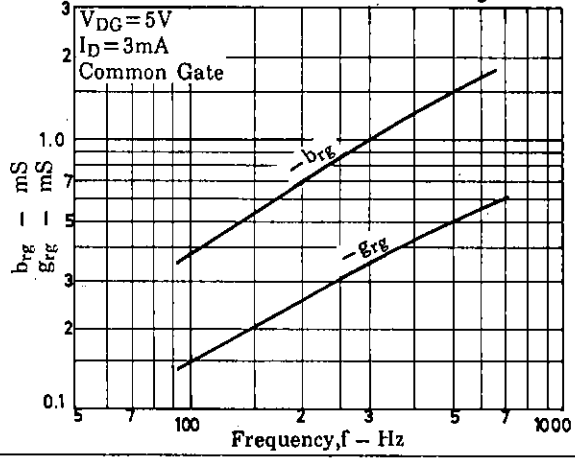
Output Admittance y_{os} – I_D



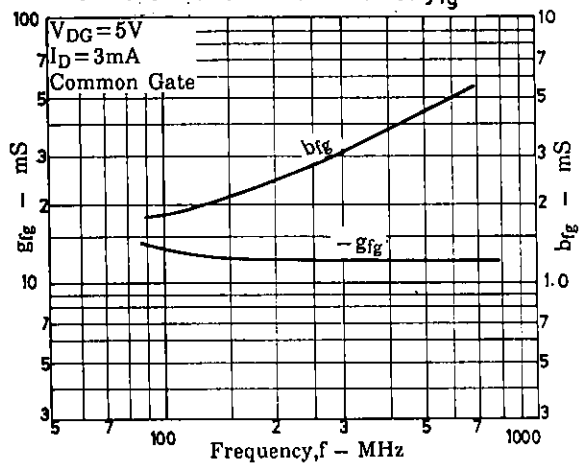
Input Admittance y_{ig} – f



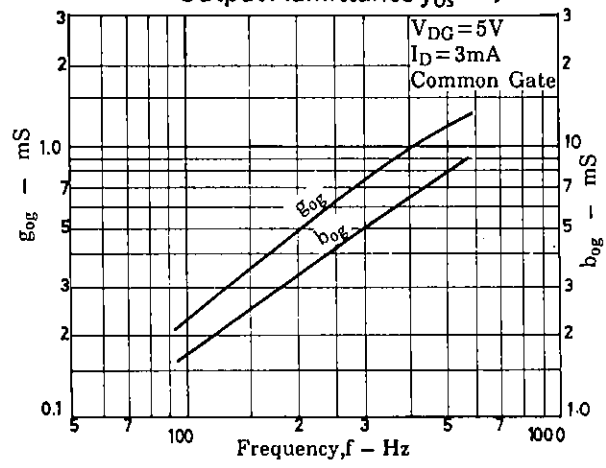
Reverse Transfer Admittance y_{rg} – f



Forward Transfer Admittance y_{fg} – f



Output Admittance y_{os} – f



P_D – T_a