

**2SK242**

Low-Frequency General-Purpose Amplifier Applications

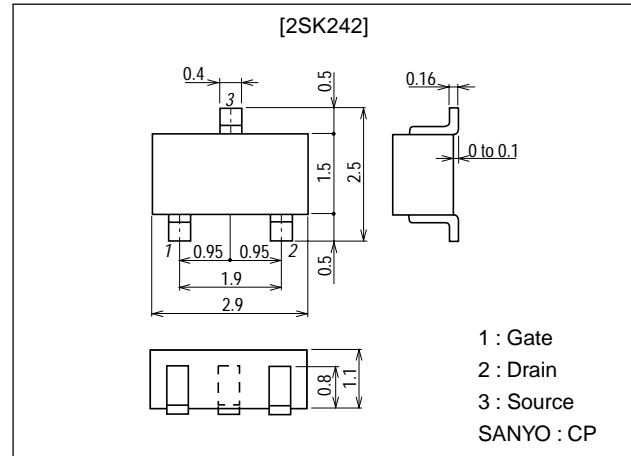
Features

- Ultrasmall-sized package permitting 2SK242-applied sets to be made small and slim.
- Small Crss (Crss=0.04pF typ).

Package Dimensions

unit:mm

2024B



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Gate-to-Drain Voltage	V_{GDO}		-20	V
Gate Current	I_G		10	mA
Drain Current	I_D		20	mA
Allowable Power Dissipation	P_D		150	mW
Junction Temperature	T_j		125	°C
Storage Temperature	T_{stg}		-55 to +125	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDO}$	$I_G = -10\mu A$	-20			V
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = -0.5V, V_{DS} = 0$			-10	nA
Zero-Gate Voltage Drain Current	I_{DSS}^*	$V_{DS} = 5V, V_{GS} = 0$	0.6*		12.0*	mA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 5V, I_D = 10\mu A$			-2.5	V
Forward Transfer Admittance	$ y_{fs} _1$	$V_{DS} = 5V, V_{GS} = 0, f = 1kHz$	2.0	6.0		mS
	$ y_{fs} _2$	$V_{DS} = 5V, V_{GS} = 0, f = 100MHz$	2.0	6.0		mS
Input Capacitance	Ciss	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		4.0		pF
Output Capacitance	Coss	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		4.0		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		0.04	0.15	pF

* : The 2SK242 is classified by I_{DSS} as follows : (unit : mA).

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0.6	2	1.5	1.2	3	3.0	2.5	4	6.0	5.0	5	12.0
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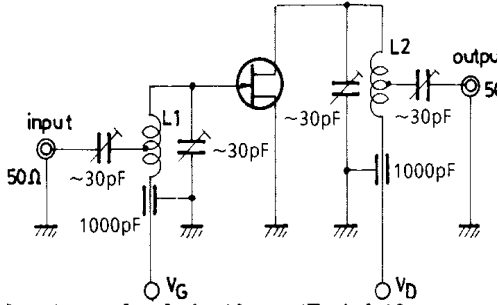
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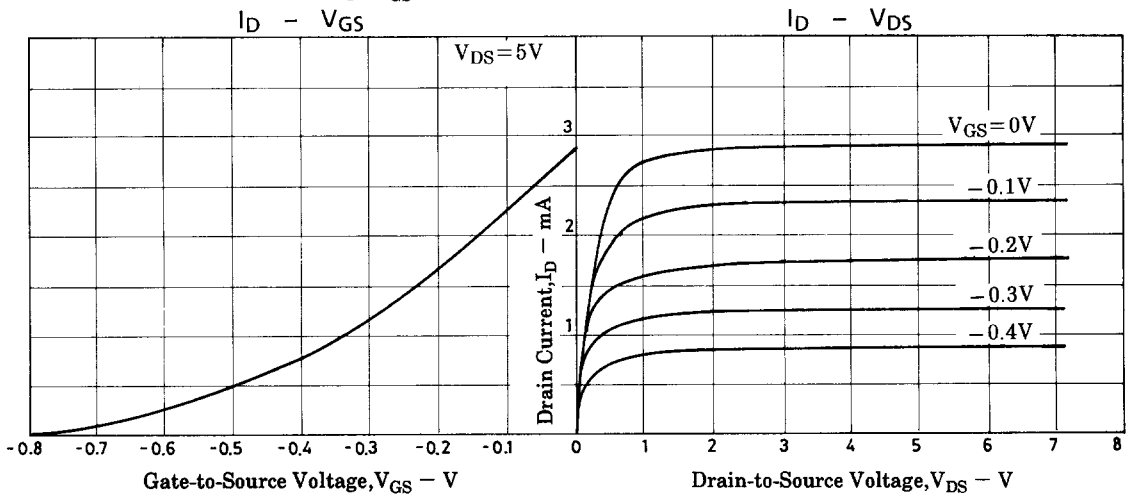
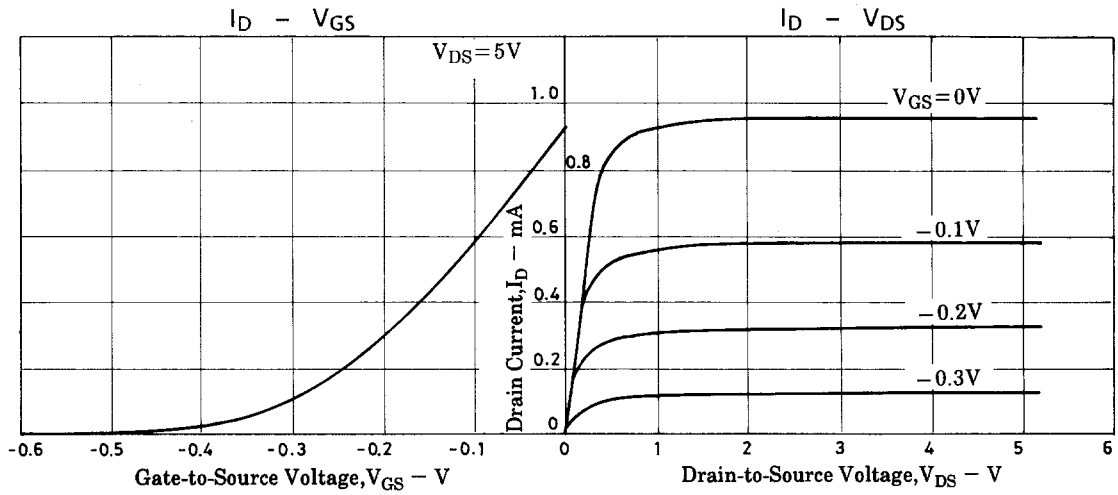
Parameter	Symbol	Conditions	Ratings		Unit
Power Gain	PG	$V_{DS}=5V$, $V_{GS}=0$, $f=100MHz$, See specified Test Circuit	24		dB
Noise Figure	NF	See specified Test Circuit	3.5	6.0	dB

PG, NF Specified Test Circuit

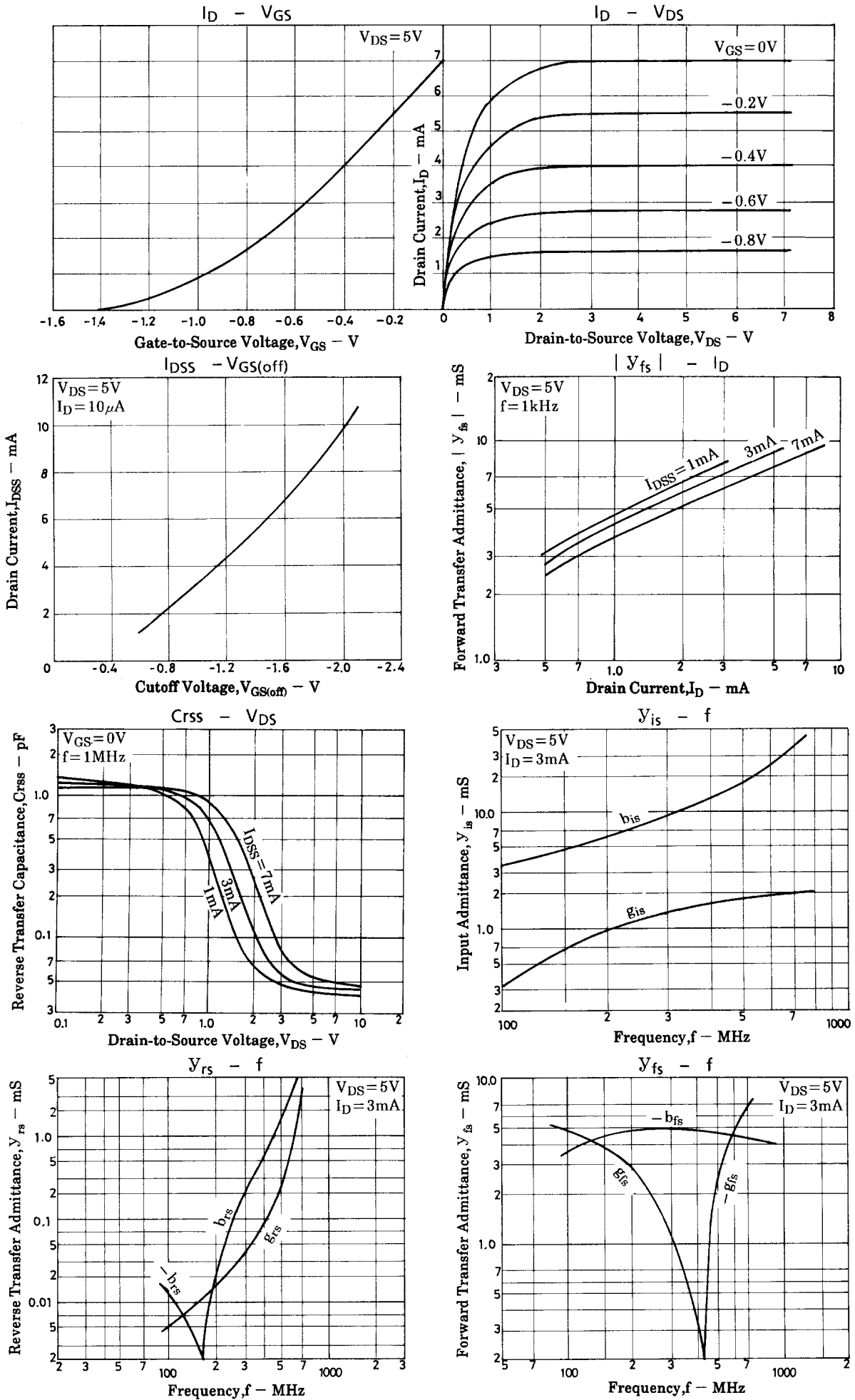


L_1 : 1mm ϕ plated wire 10mm ϕ 4T, pitch 18mm,
tap : 1T from gate side

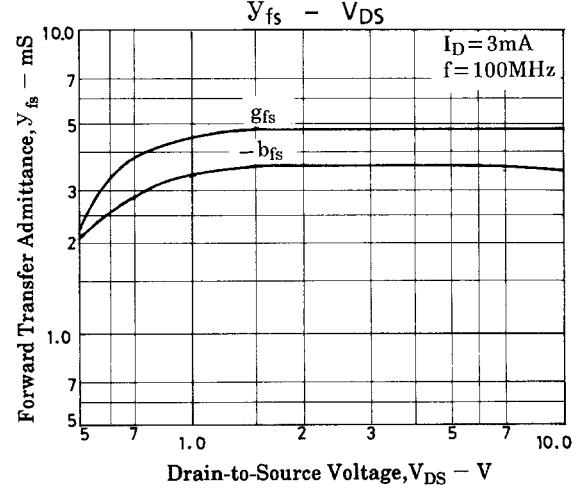
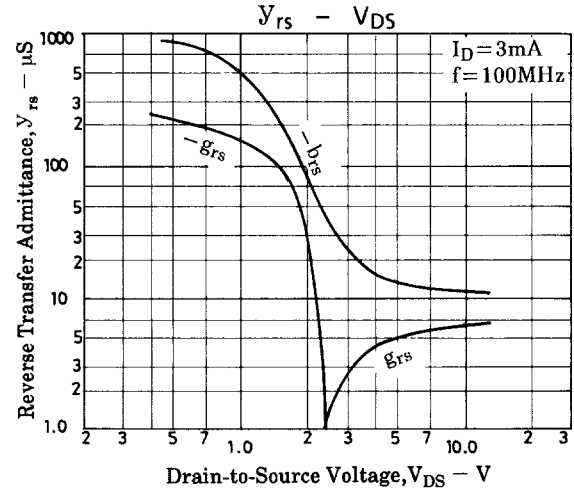
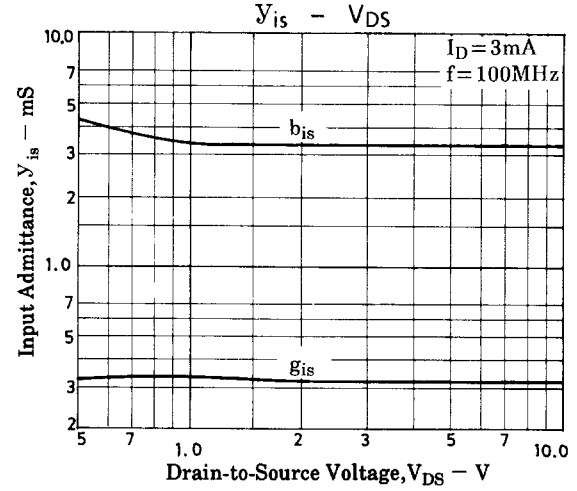
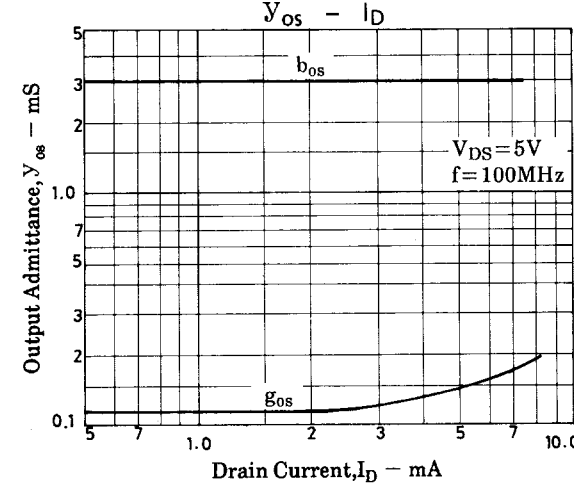
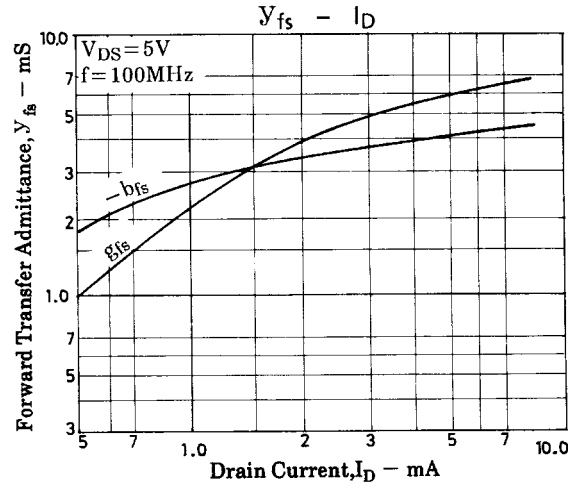
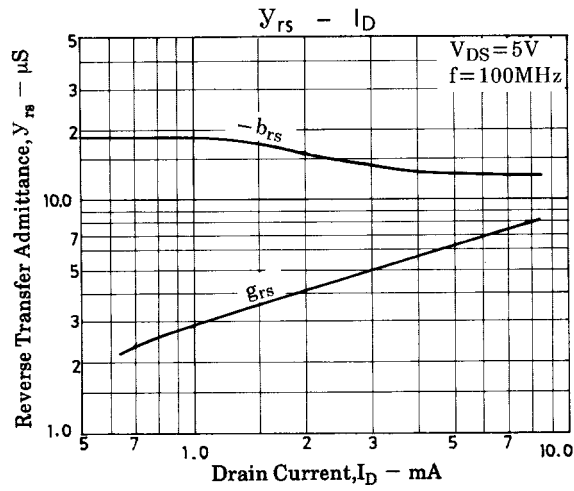
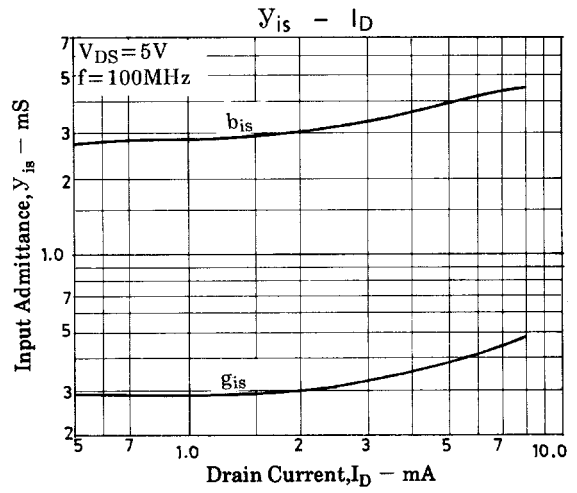
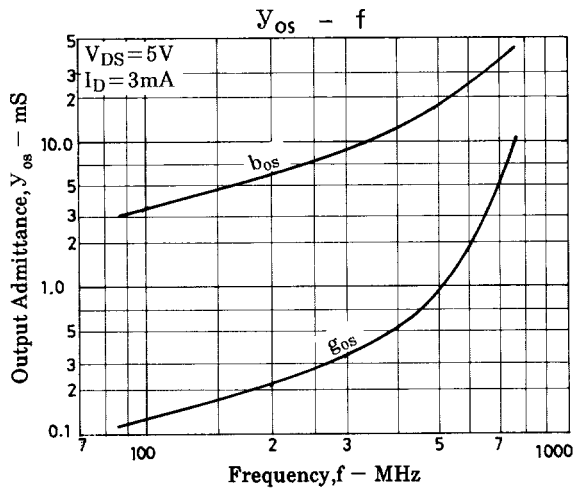
L_2 : 1mm ϕ plated wire 10mm ϕ 6T, pitch 10mm,
tap : 1T from drain side



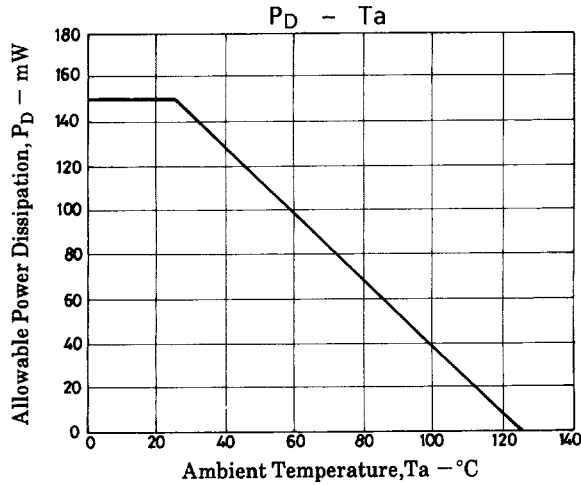
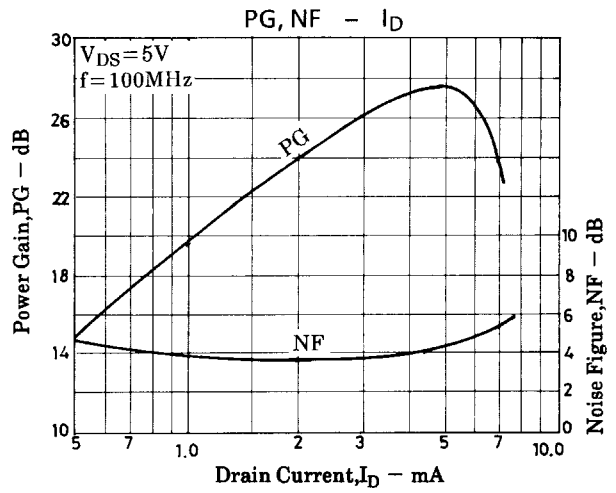
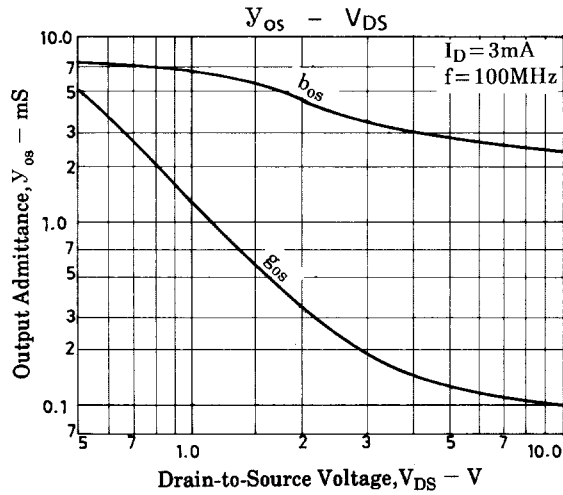
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