

**2SK427**

AM Tuner RF Amplifier Applications

Applications

- AM tuner RF amplifiers and low-noise amplifiers.

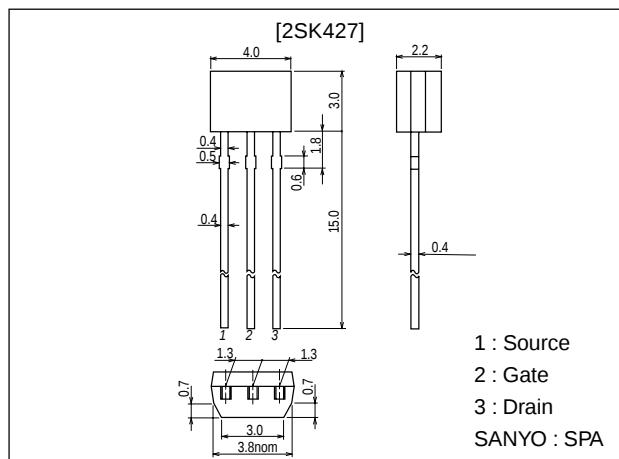
Features

- Large $|y_{fs}|$.
- Ultralow noise figure.
- Small C_{rss} .

Package Dimensions

unit:mm

2034A



Specifications

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

Parameter	Symbol	Conditions	Ratings	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		20	mA
Allowable Power Dissipation	P_D		200	mW
Junction Temperature	T_J		125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -10\mu\text{A}$, $V_{DS} = 0$	-15			V
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = -10\text{V}$, $V_{DS} = 0$			-1.0	nA
Zero-Gate Voltage Drain Current	I_{DSS}^*	$V_{DS} = 5\text{V}$, $V_{GS} = 0$	1.2*		12.0*	mA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 5\text{V}$, $I_D = 100\mu\text{A}$		-0.5	-1.5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 5\text{V}$, $V_{GS} = 0$, $f = 1\text{kHz}$	8.0	17		mS
Input Capacitance	C_{iss}	$V_{DS} = 5\text{V}$, $V_{GS} = 0$, $f = 1\text{MHz}$		7.0		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 5\text{V}$, $V_{GS} = 0$, $f = 1\text{MHz}$		2.0		pF
Noise Figure	NF	$V_{DS} = 5\text{V}$, $I_D = 1\text{mA}$, $R_g = 1\text{k}\Omega$, $f = 1\text{kHz}$		1.5		dB

* : The 2SK427 is classified by I_{DSS} as follows : (unit : mA)

1.2	P	2.1	1.7	Q	3.0	2.5	R	4.2
3.5	S	6.0	5.0	T	8.5	7.3	U	12.0

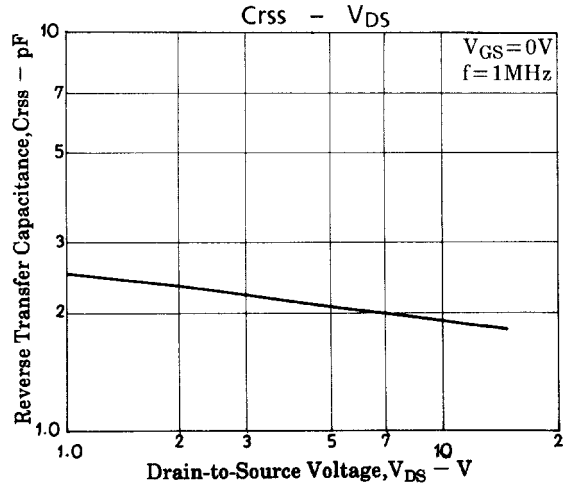
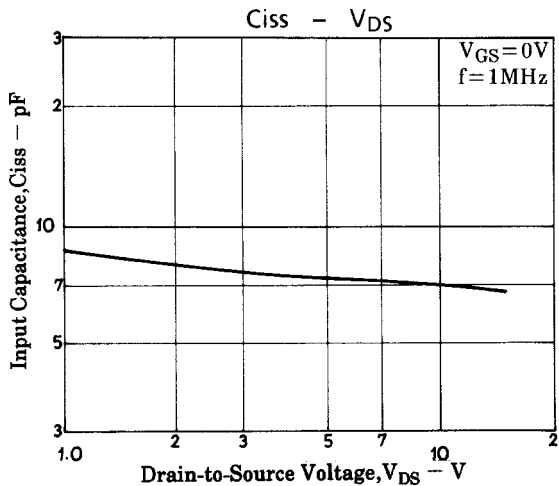
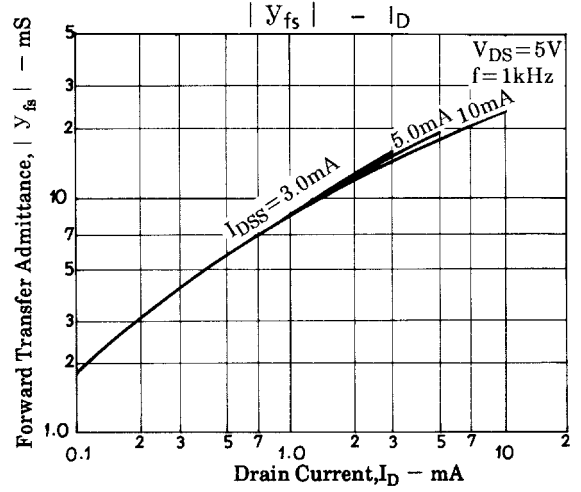
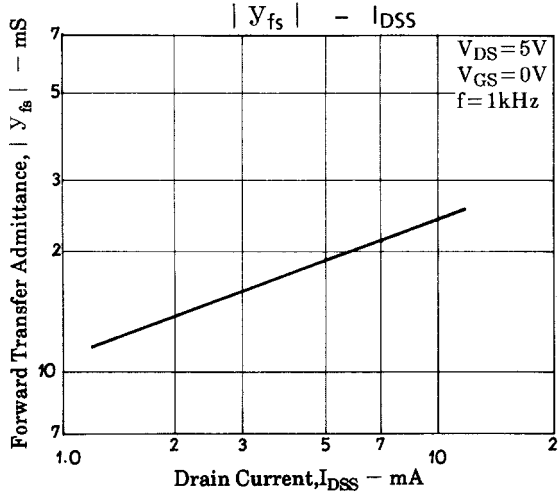
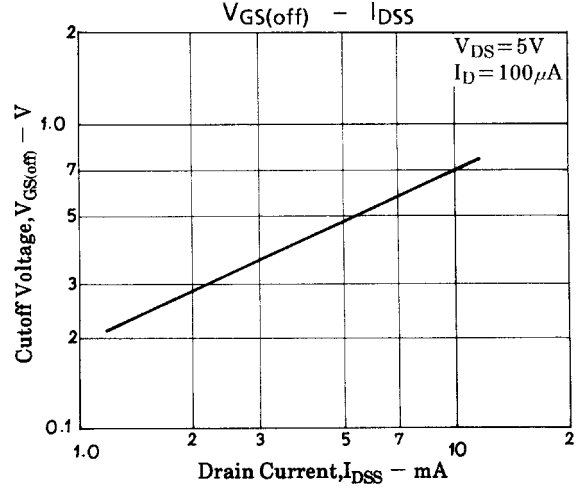
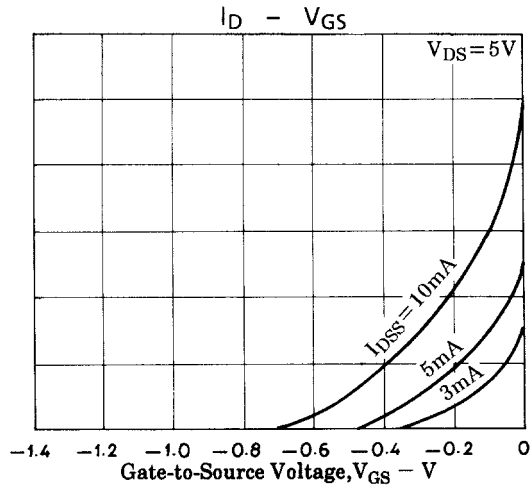
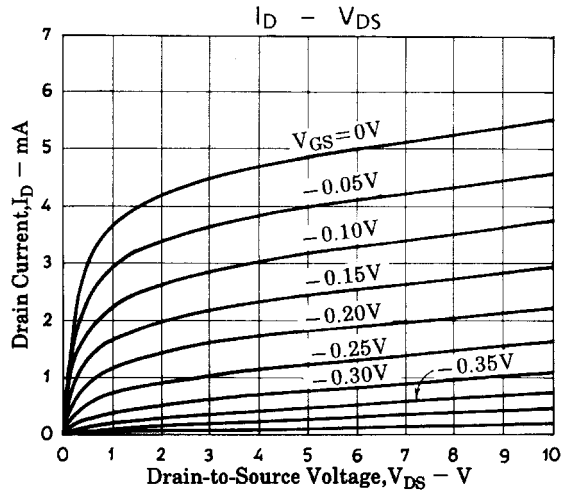
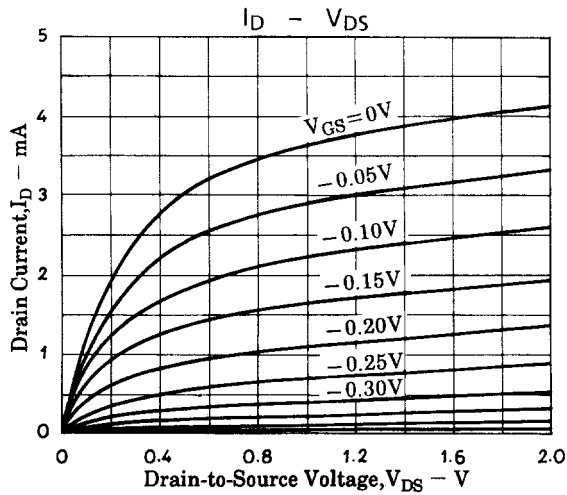
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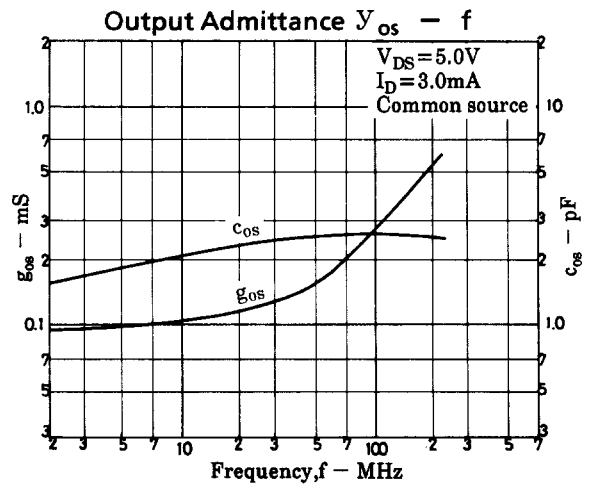
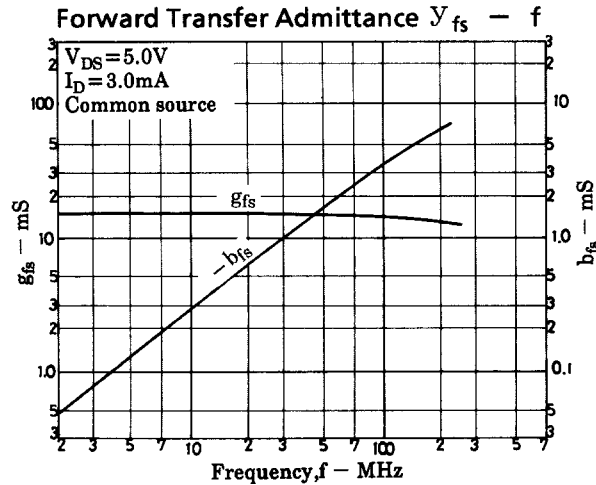
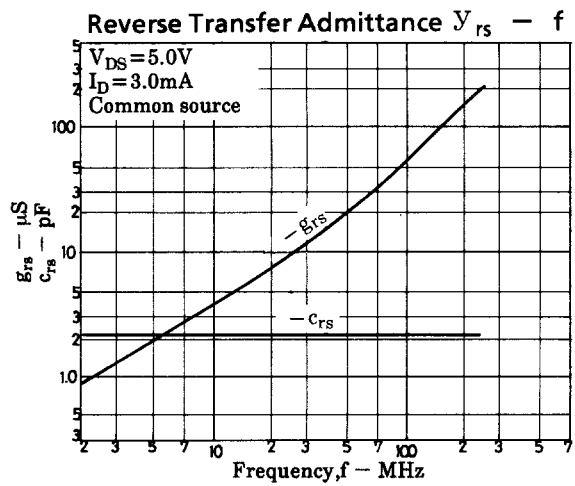
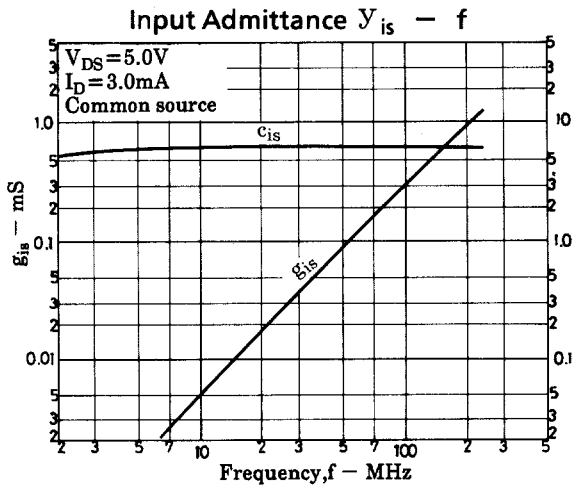
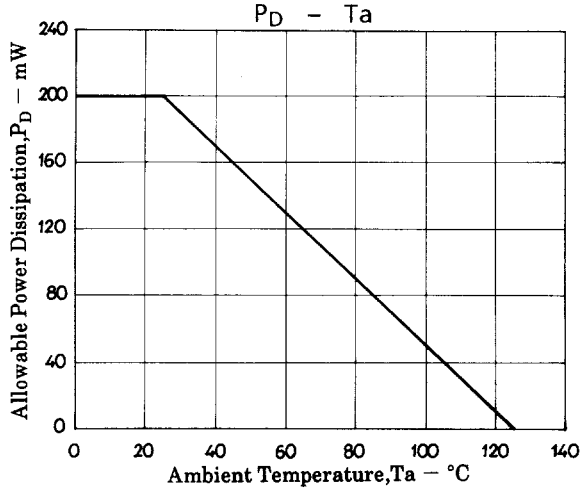
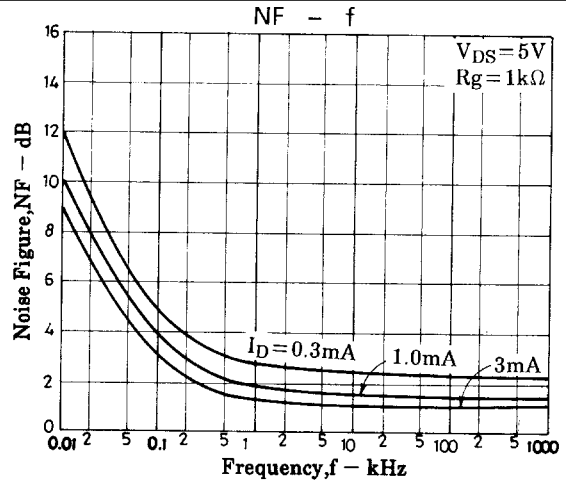
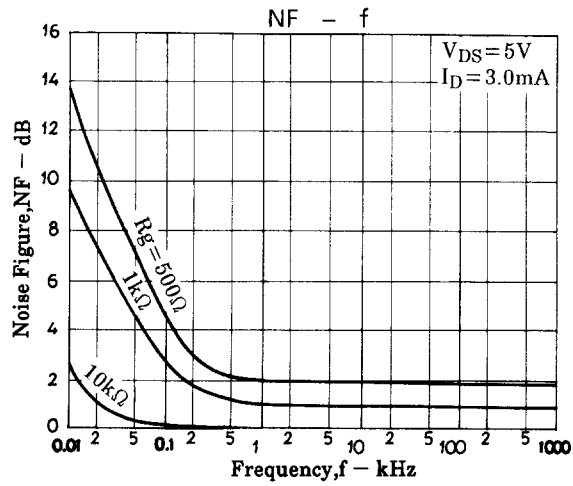
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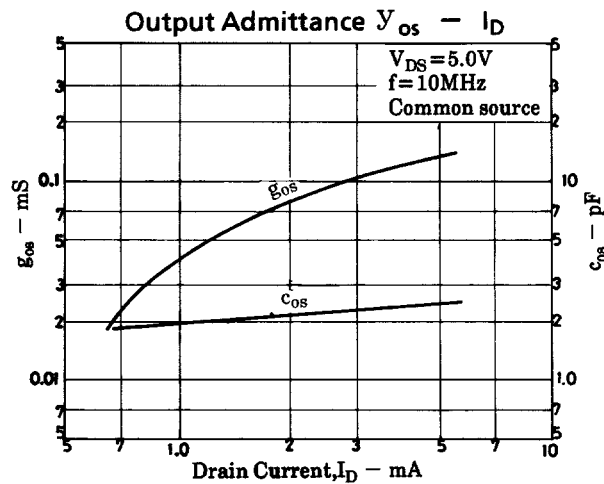
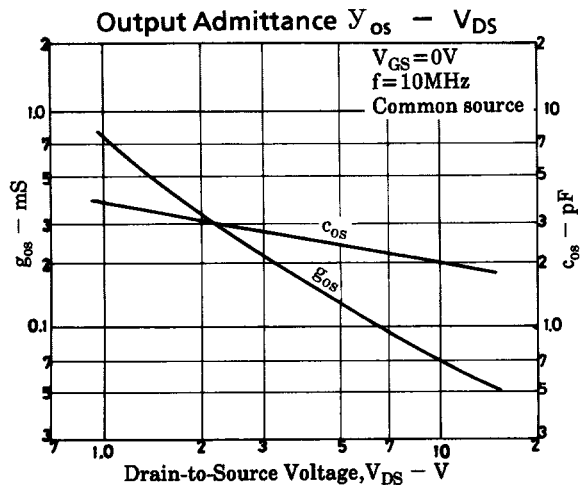
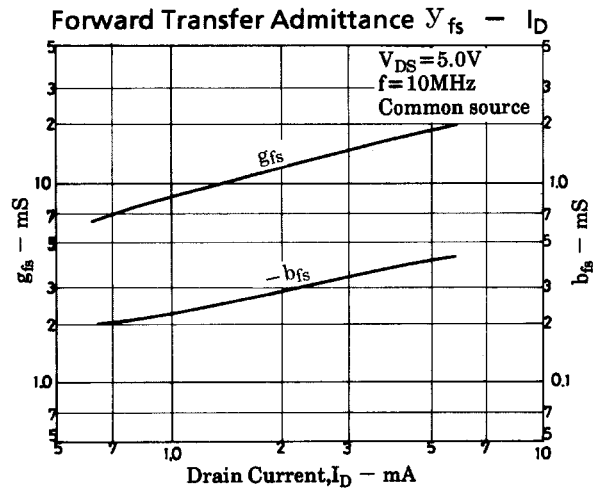
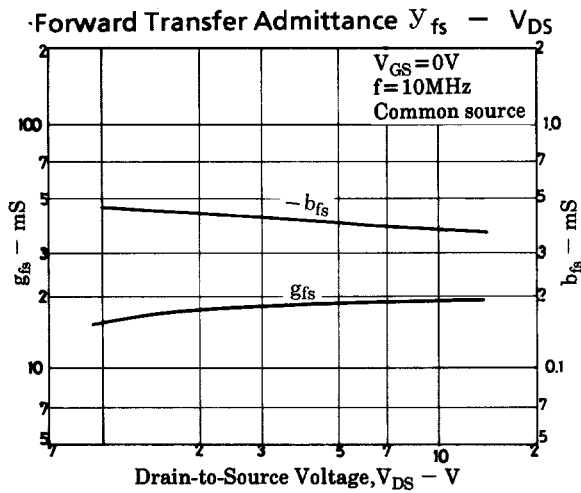
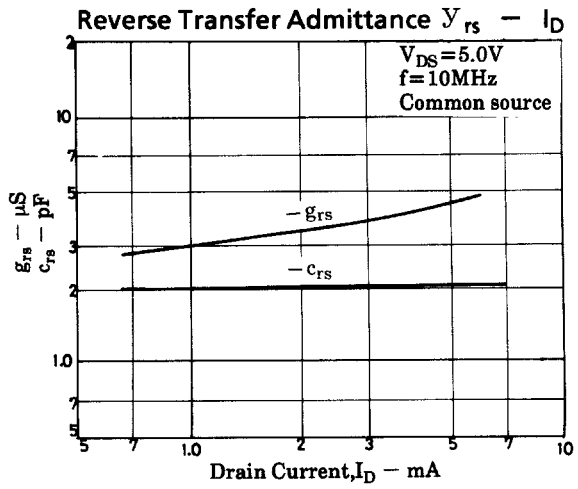
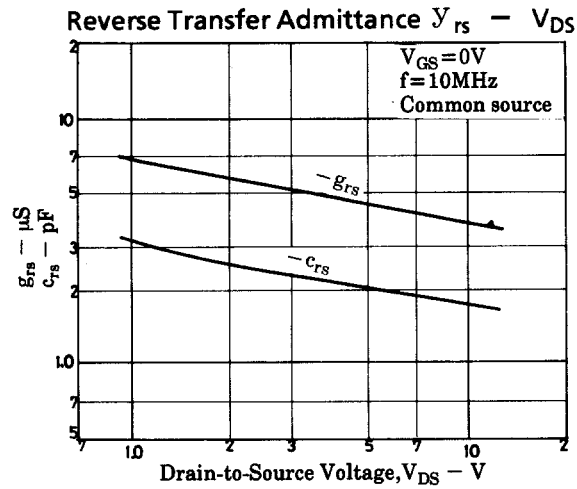
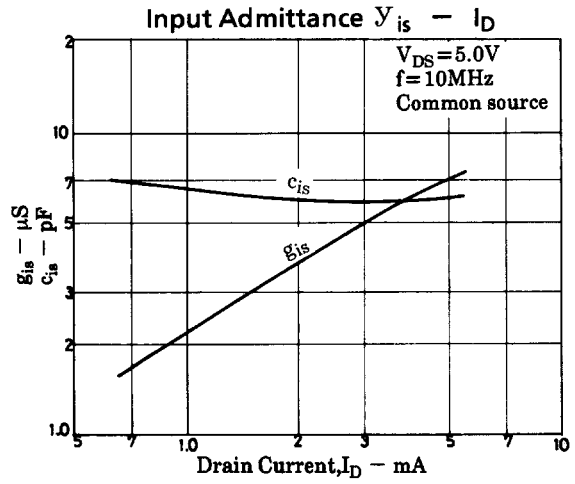
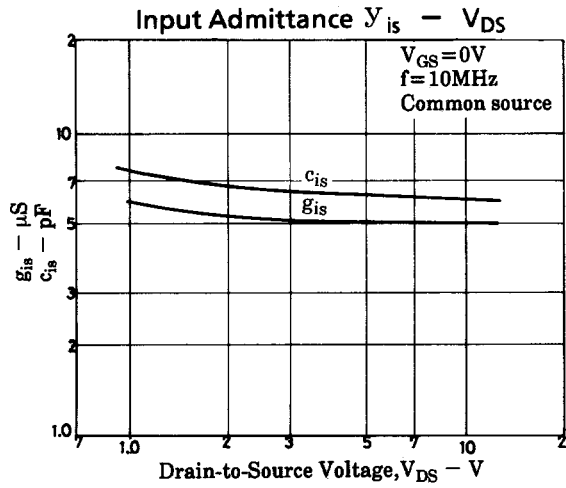
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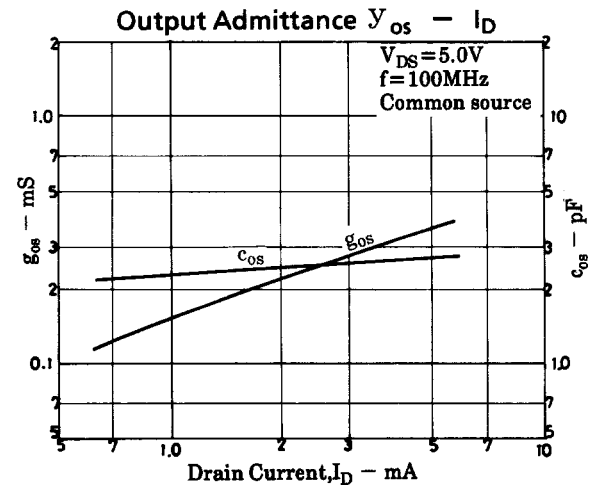
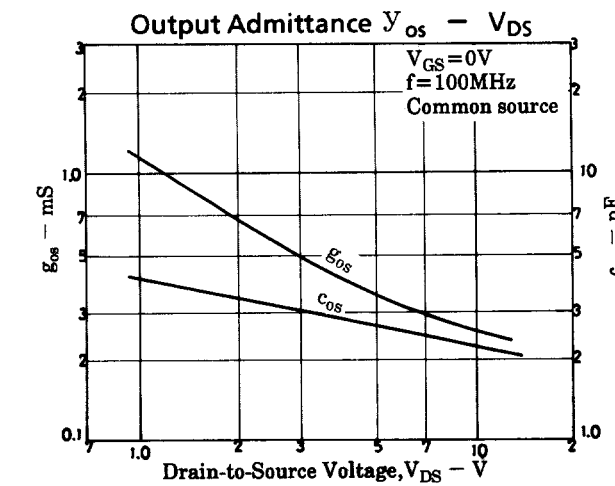
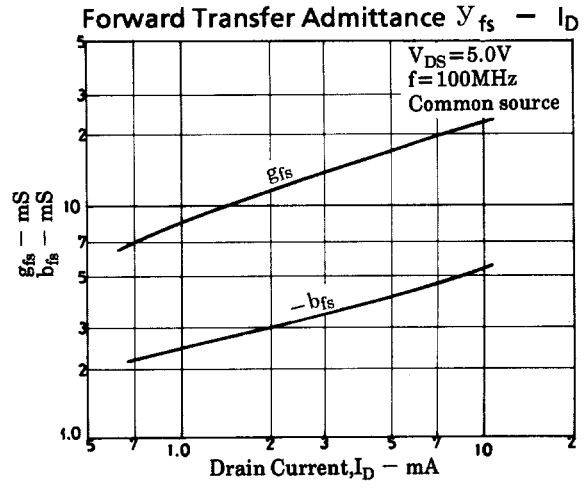
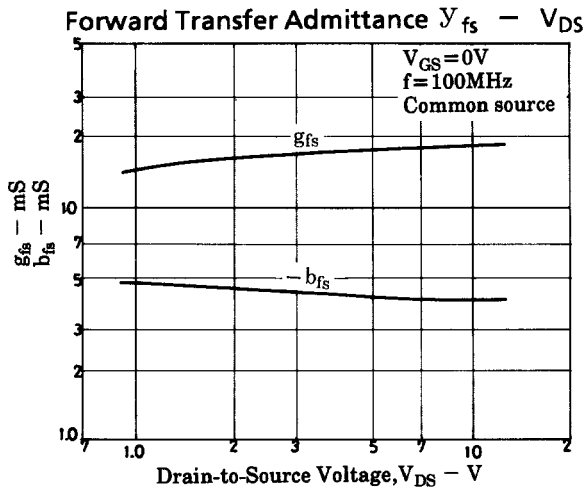
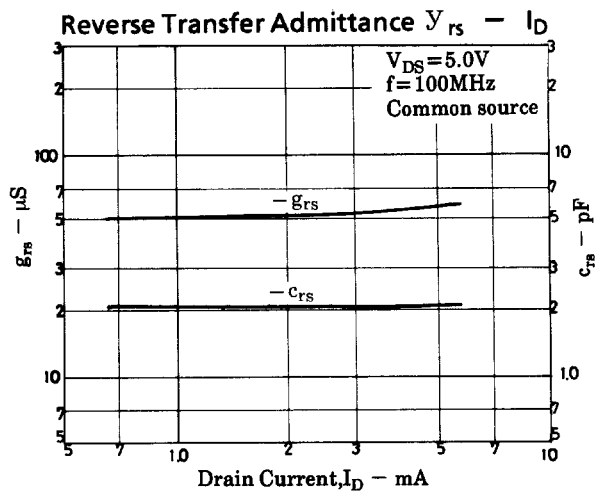
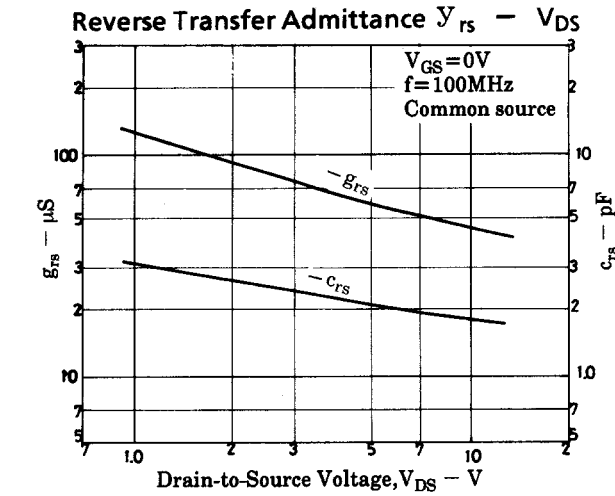
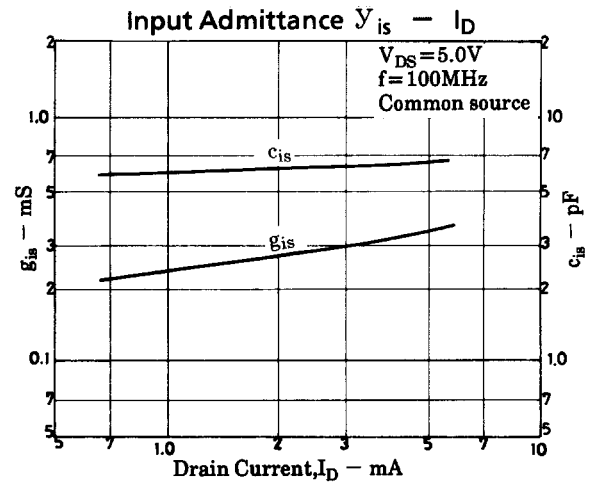
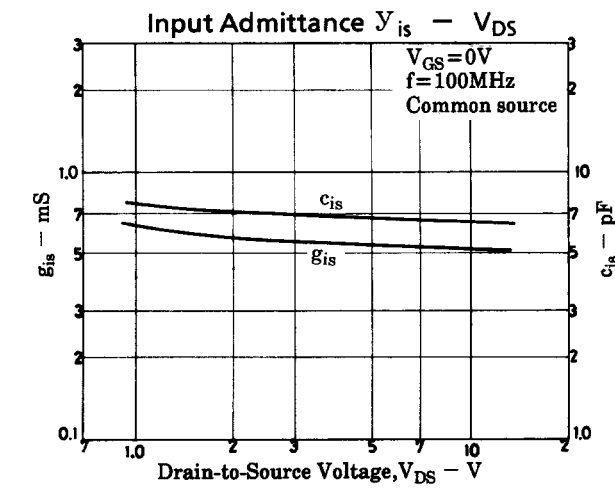
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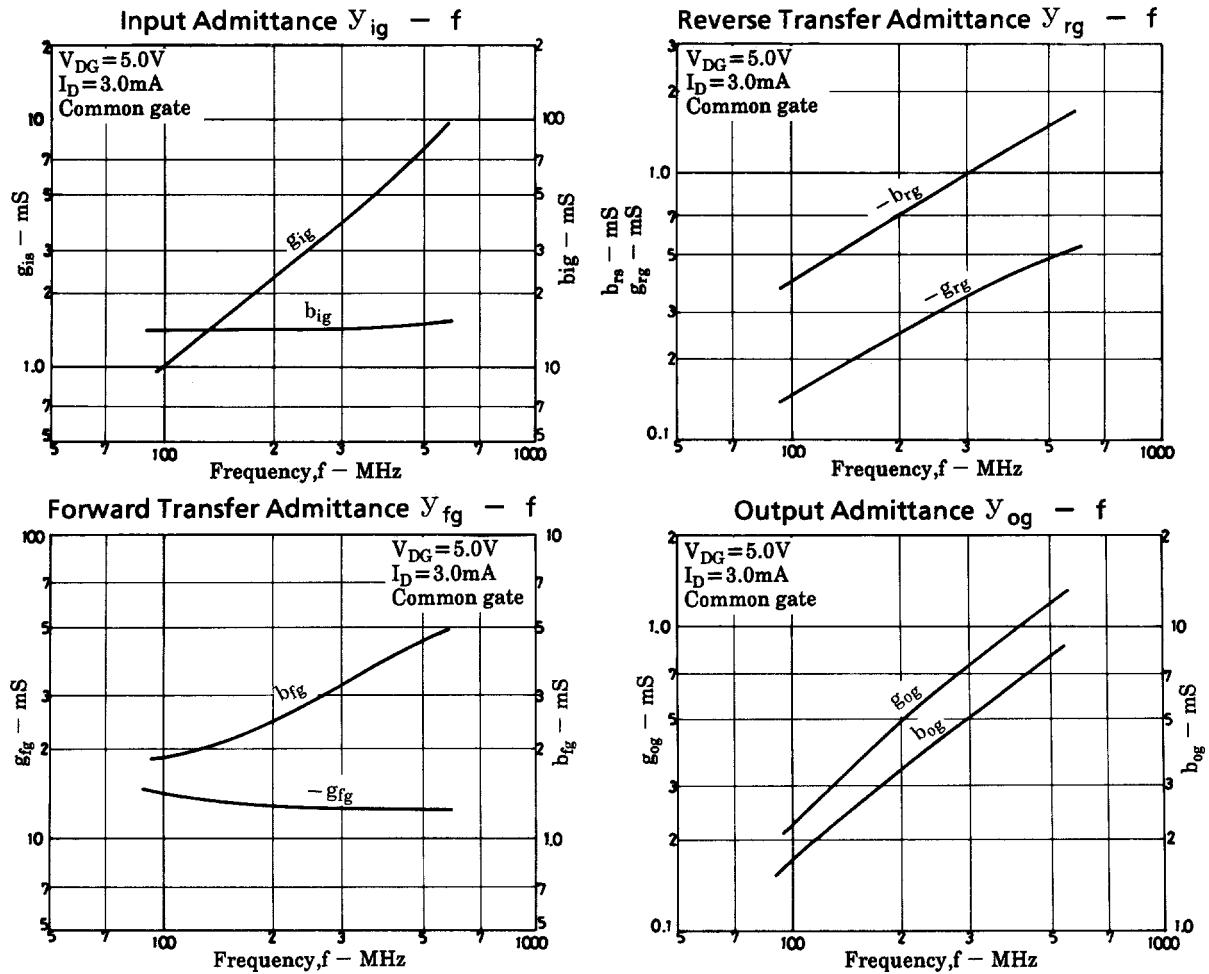
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