



2SK212

FM Tuner Applications

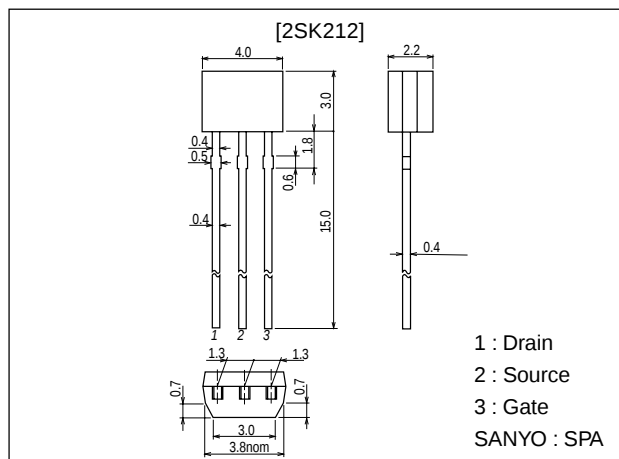
Features

- Ideal for FM tuners in low-voltage radios, car radios, etc.
- Small-sized package permitting 2SK212-applied sets to be made small and slim.
- Small C_{rss} ($C_{rss}=0.04\text{pF}$ typ).
- High $|y_{fs}|$ ($|y_{fs}|=6.0\text{mS}$ typ).

Package Dimensions

unit:mm

2040A



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		200	mW
Junction Temperature	T_J		125	°C
Storage Temperature	T_{stg}		−55 to +125	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDO}$	$I_G = -10\mu A$	-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	C _{iss}	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		4.0		pF
Output Capacitance	C _{oss}	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		4.0		pF
Reverse Transfer Capacitance	C _{rss}	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		0.04	0.15	pF

* : The 2SK212 is classified by I_{DSS} as follows (unit : mA).

Continued on next page.

0.6	C	1.5	1.2	D	3.0	2.5	E	6.0	5.0	F	12.0
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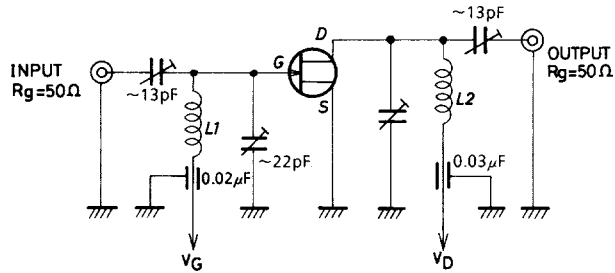
42099TH (KT)/90895MO (KOTO)6027KI/2225MW, TS 8-3280 No.661-1/5

2SK212

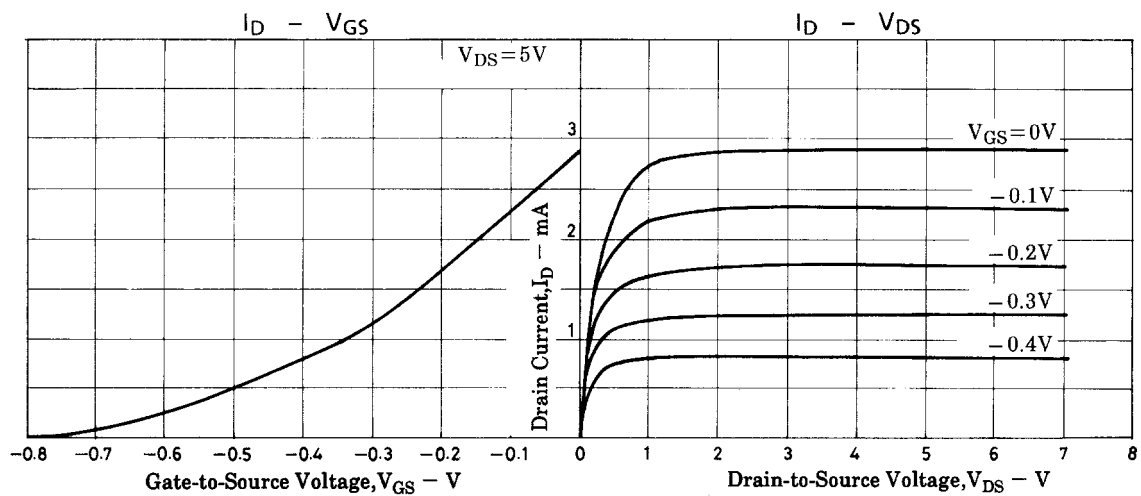
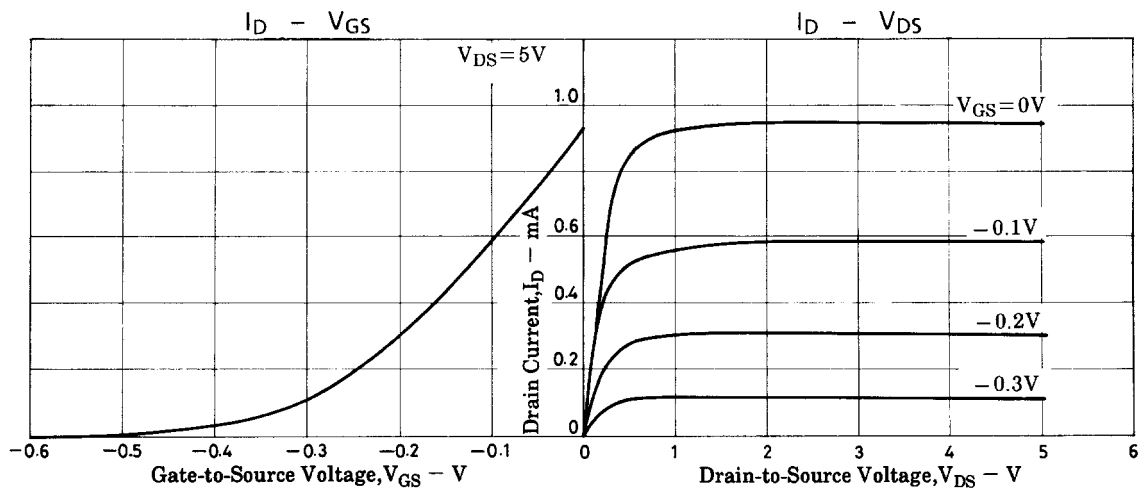
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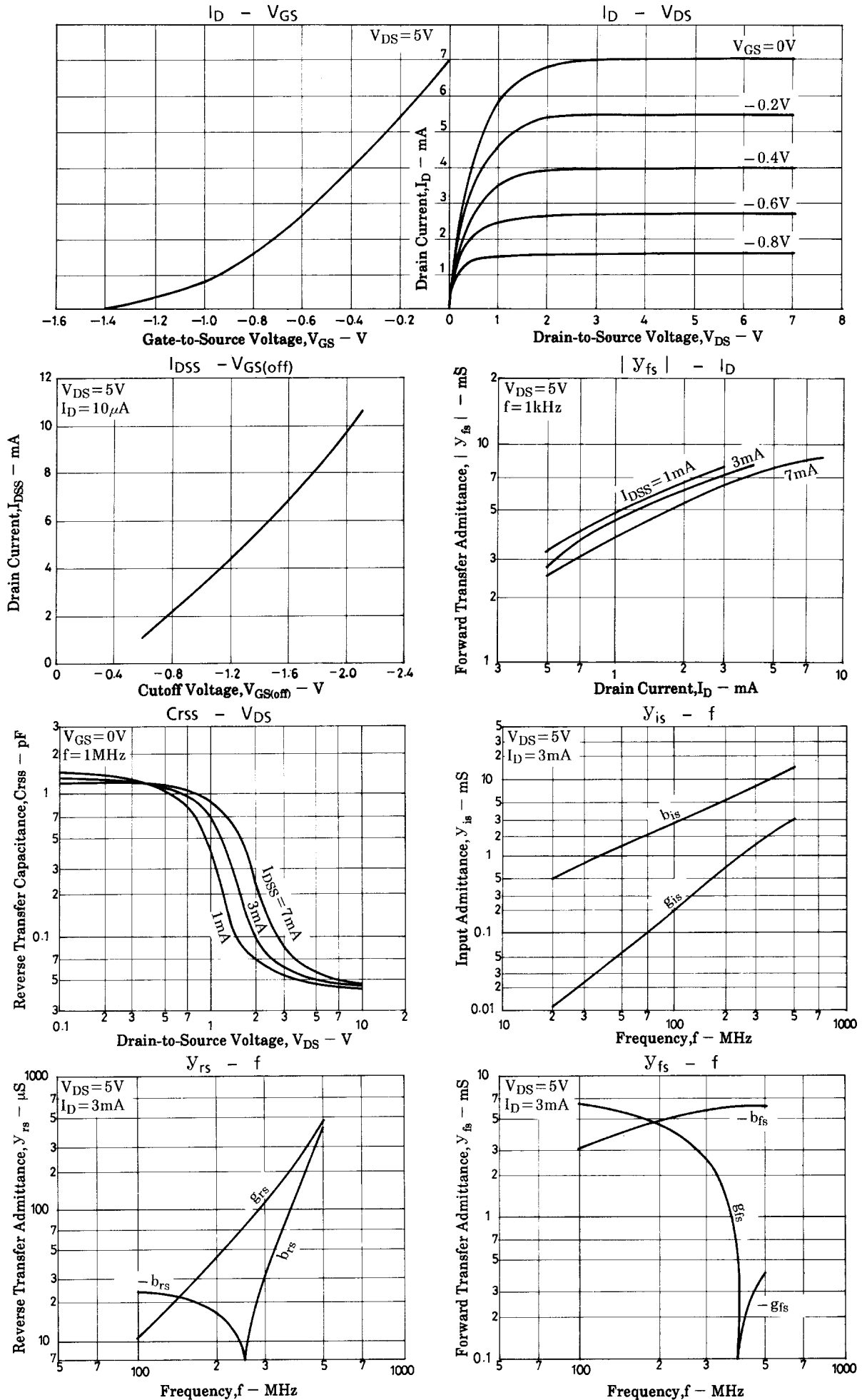
Parameter	Symbol	Conditions	Ratings		Unit
Power Gain	PG	$V_{DS}=5V$, $V_{GS}=0$, $f=100MHz$, See specified Test Circuit	21		dB
Noise Figure	NF	See specified Test Circuit	3.5	6.0	dB

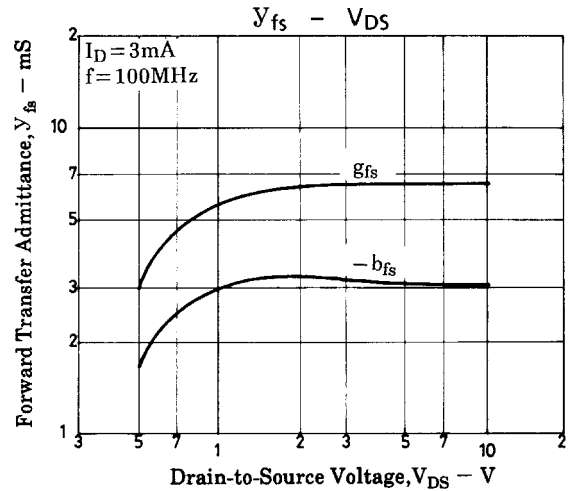
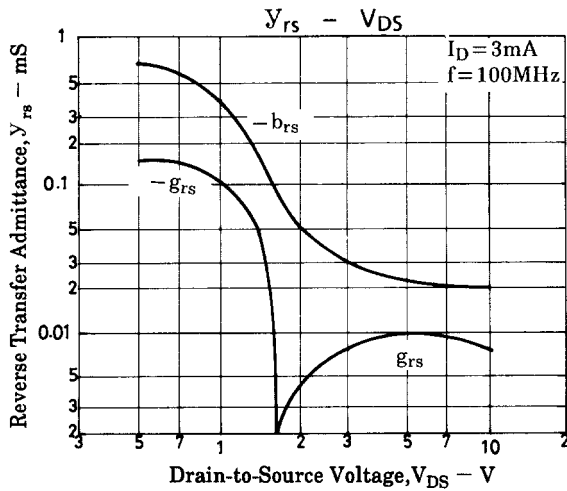
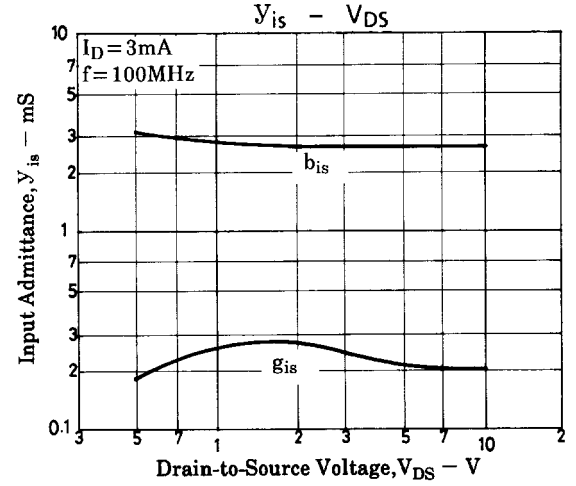
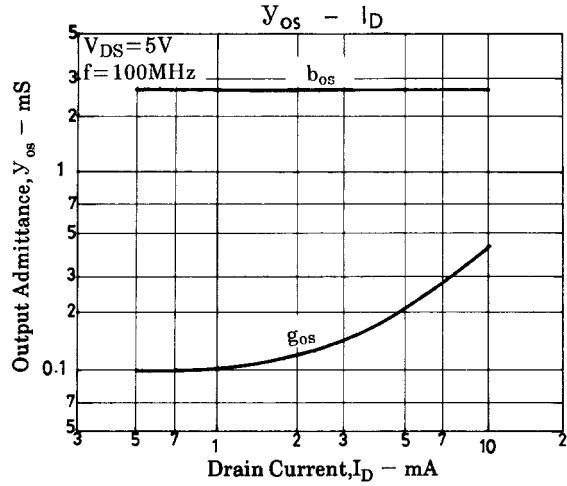
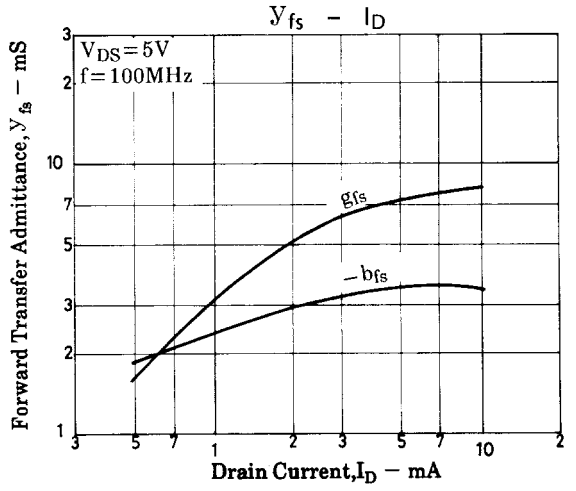
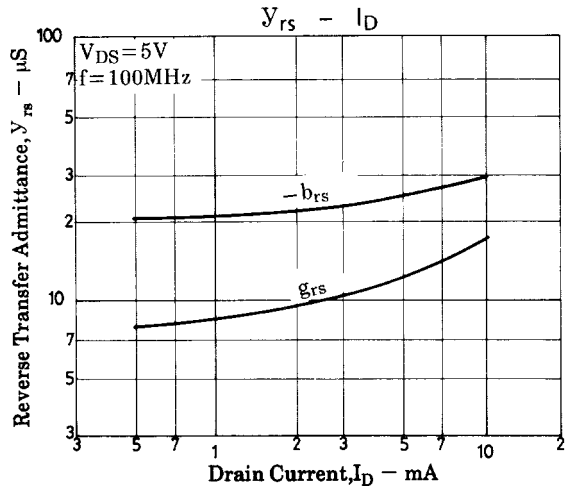
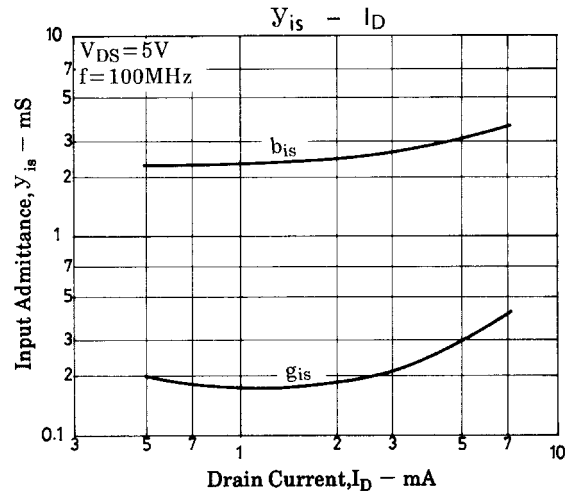
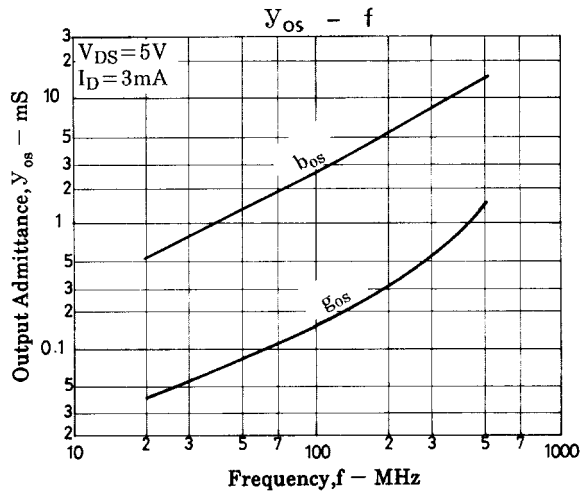
PG, NF Specified Test Circuit

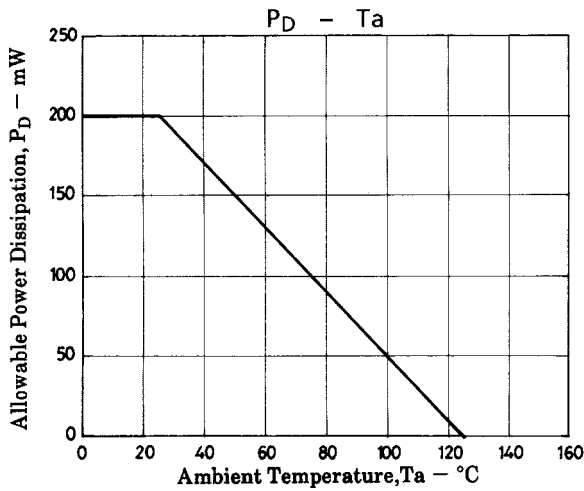
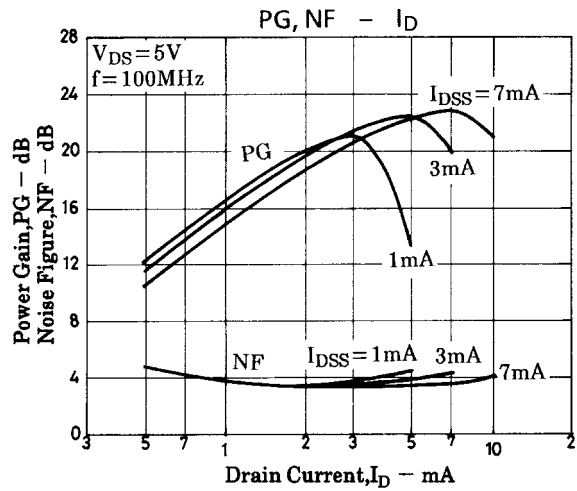
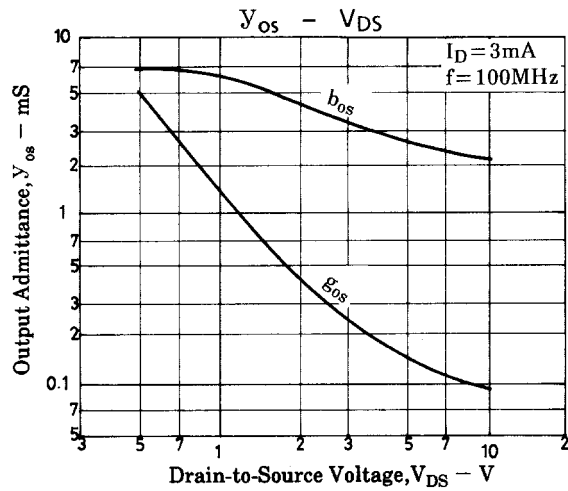


L1 : 1mmϕ tin-plated wire, air core 10mmϕ 4.5T
L2 : 1mmϕ tin-plated wire, air core 10mmϕ 3.5T









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