

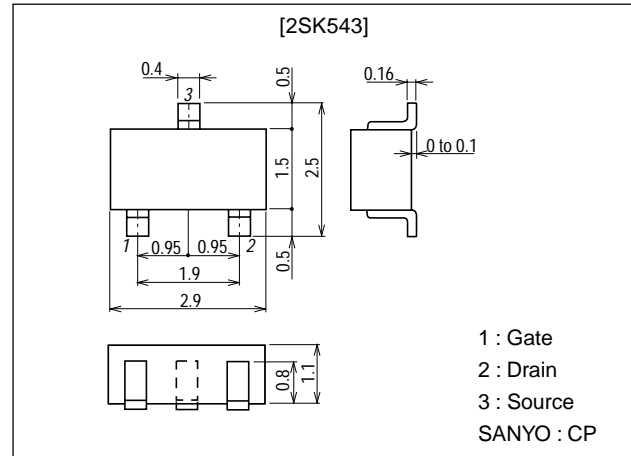
**2SK543****FM Tuner, VHF-Band Amplifier Applications****Features**

- Low noise. NF=1.8dB typ (f=100MHz).
- High power gain. PG=27dB typ (f=100MHz).
- Small reverse transfer capacitance. Crss=0.035pF (V_{DS}=10V, f=1MHz).

Package Dimensions

unit:mm

2024B

**Specifications****Absolute Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DS}		20	V
Gate-to-Source Voltage	V _{GS}		±5	V
Drain Current	I _D		30	mA
Allowable Power Dissipation	P _D		200	mW
Channel Temperature	T _{ch}		125	°C
Storage Temperature	T _{stg}		-55 to +125	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Voltage	V _{DSX}	V _{GS} =-4V, I _D =100μA	20			V
Gate-to-Source Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±5V			10	nA
Zero-Gate Voltage Drain Current	I _{DSS} *	V _{DS} =10V, V _{GS} =0V	1.2*		12*	mA
Cutoff Voltage	V _{GS(off)}	V _{DS} =10V, I _D =100μA			-2.5	V
Forward Transfer Admittance	y _{fs}	V _{DS} =10V, V _{GS} =0V, f=1kHz		11		mS
Input Capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0V, f=1MHz		2.4		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =10V, V _{GS} =0V, f=1MHz		0.035		pF

* : The 2SK543 is classified by I_{DSS} as follows (unit : mA) :

1.2	3	3.0	2.5	4	6.0	5.0	5	12
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(Note) Marking : CJ
I_{DSS} rank : 3, 4, 5

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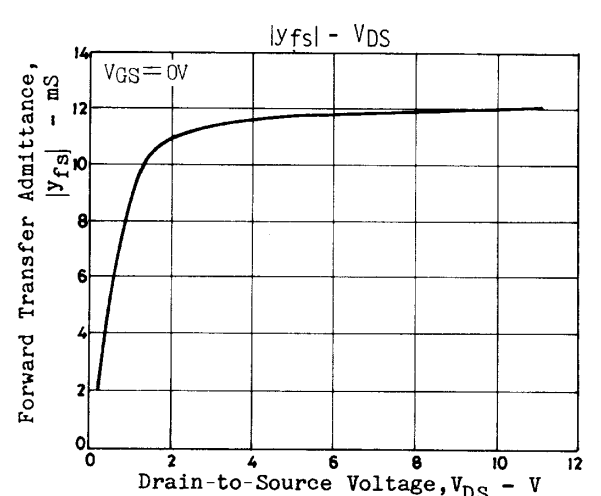
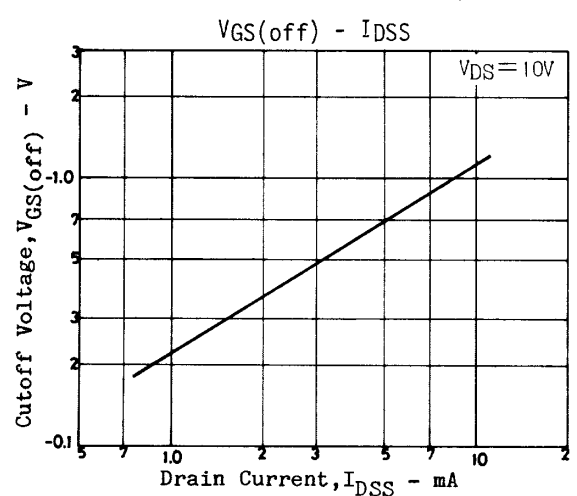
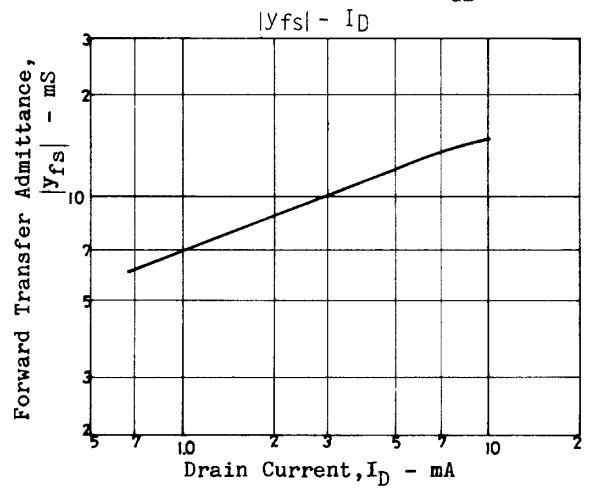
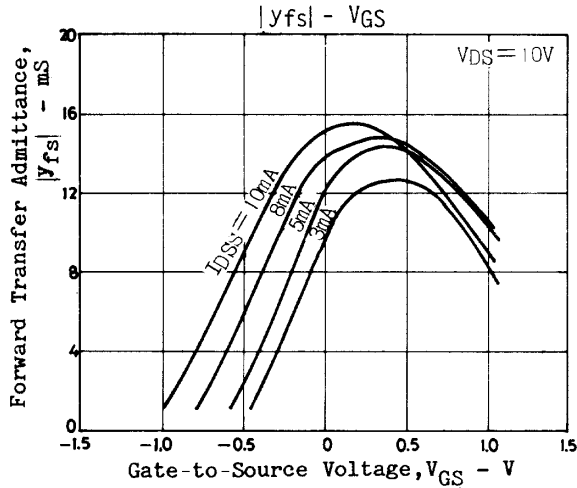
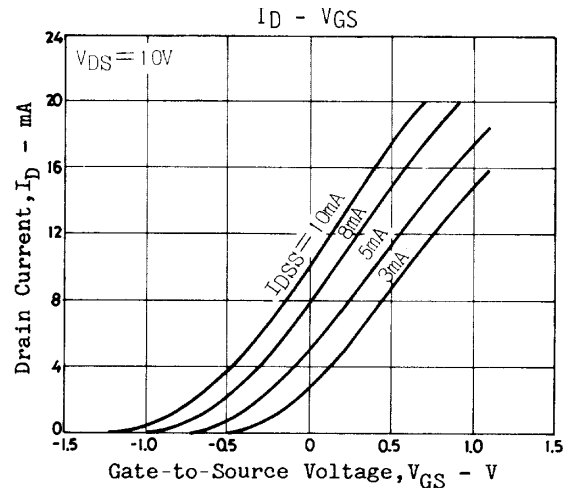
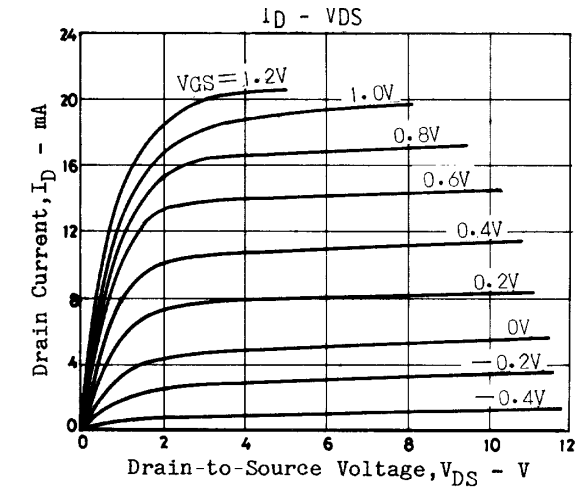
SANYO Electric Co.,Ltd. Semiconductor Company

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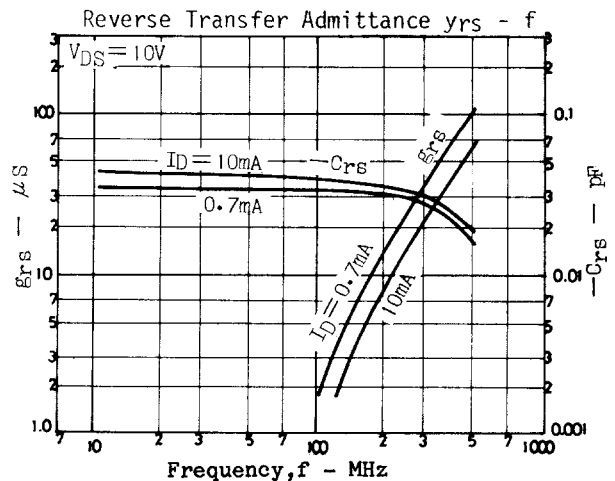
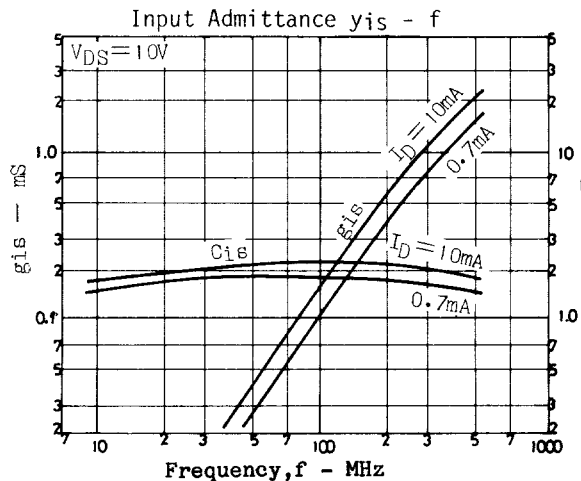
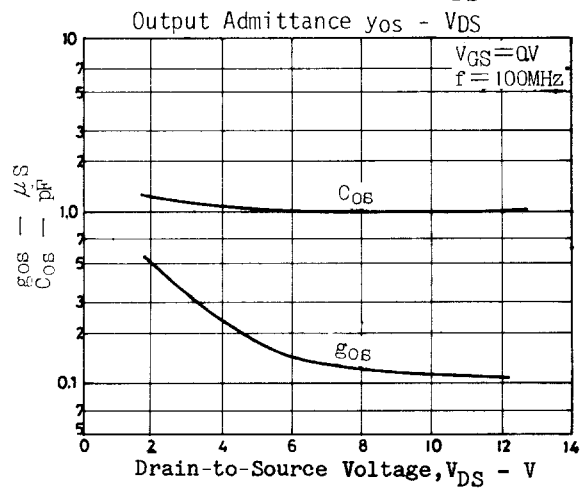
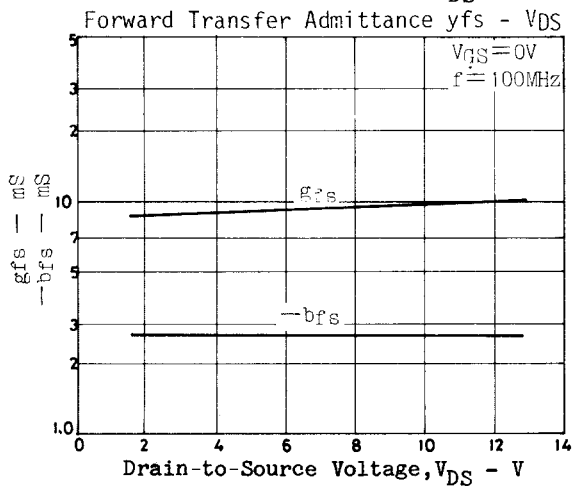
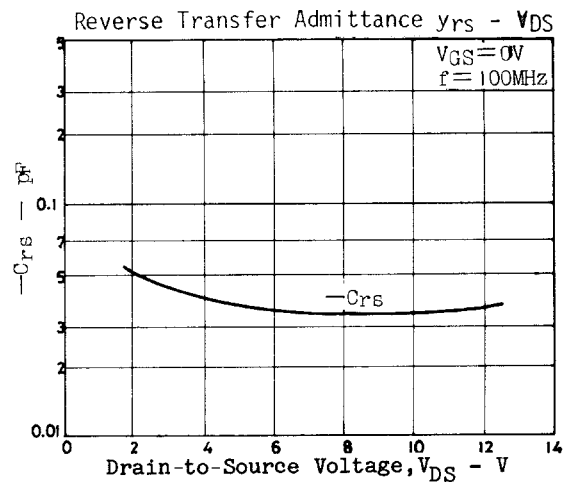
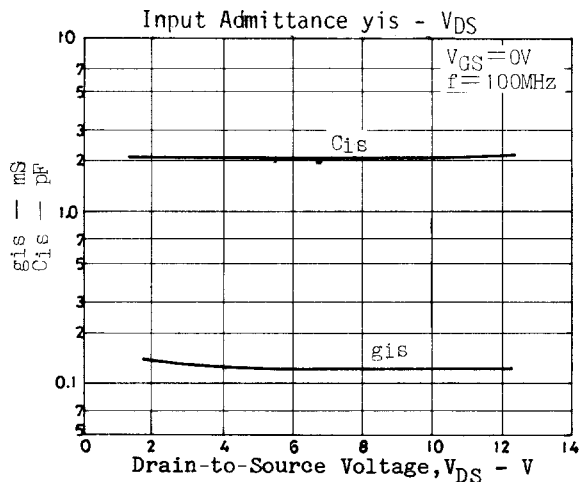
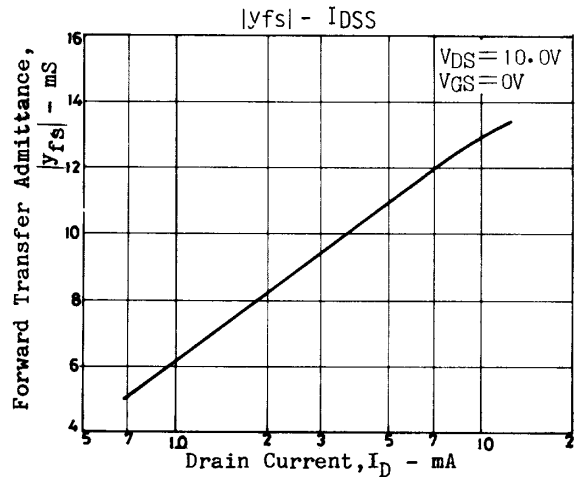
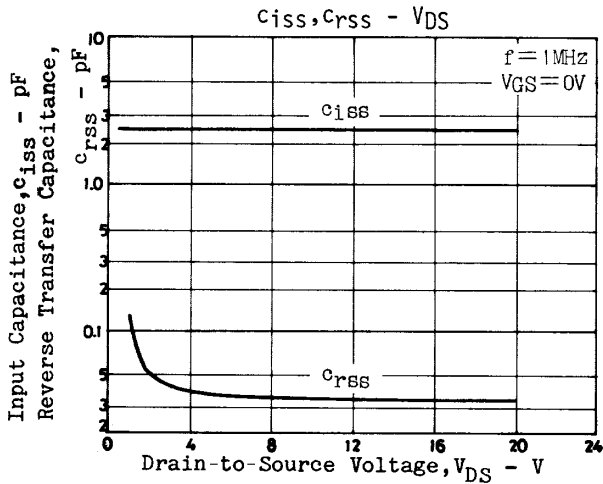
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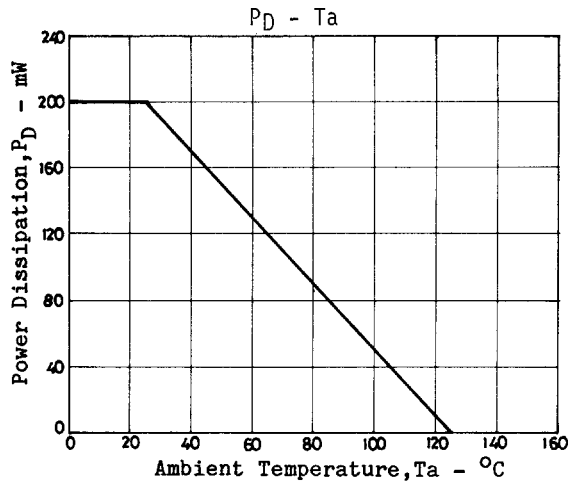
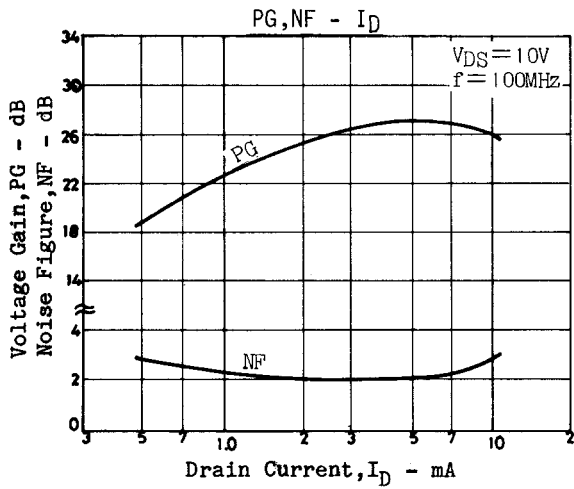
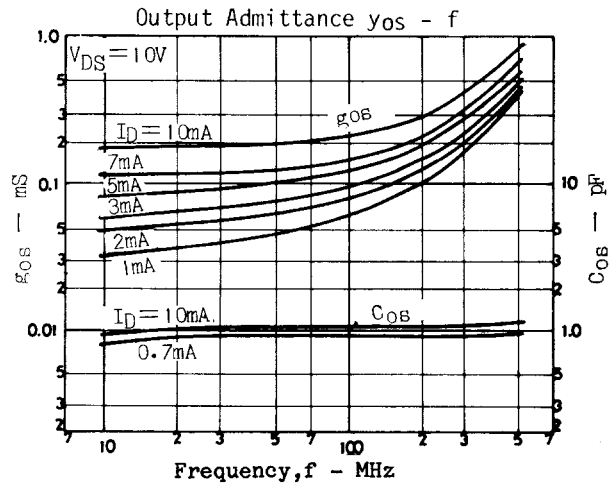
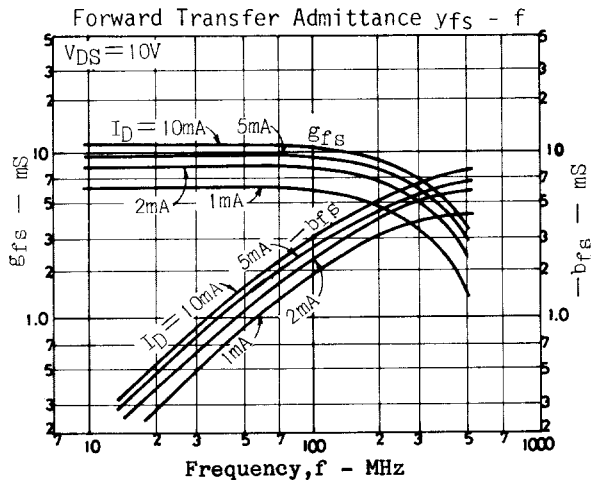
Parameter	Symbol	Conditions	Ratings		Unit
Power Gain	PG	$V_{DS}=10V, V_{GS}=0V, f=100MHz$, See specified Test Circuit	27		dB
Noise Figure	NF	$V_{DS}=10V, V_{GS}=0V, f=100MHz$, See specified Test Circuit	1.8	3.0	dB



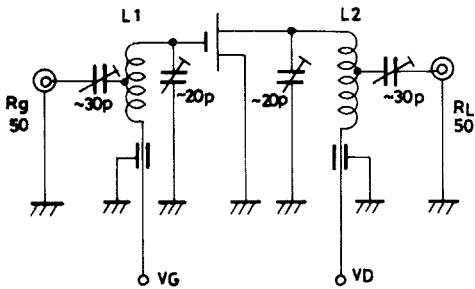
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PG, NF Specified Test Circuit



- L1: 1mm ϕ plated wire 10mm ϕ 6T, tap: 3T from H side
- L2: 1mm ϕ plated wire 10mm ϕ 7T, tap: 4T from H side

Unit (resistance : Ω , capacitance : F)

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