Ordering number: EN 1792C

SANYO

No.1792C

2SK544

N-Channel MOS Silicon FET

FM Tuner, VHF Amp Applications

Features

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

Absolute Maximum Ratings at Ta=25°C

			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	300	mW
Channel Temperature	Tch	125	°C
Storage Temperature	Tstg	−55 to +125	°C

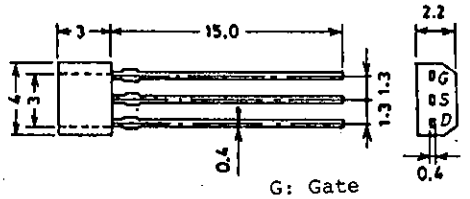
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Drain to Source Voltage	V_{DSX}	V_{GS}=−4V, I_D=100μA	20			V
Gate Cutoff Current	I_{GSS}	V_{DS}=0V, V_{GS}=±5V			10	nA
Drain Current	I_{DSS}	V_{DS}=10V, V_{GS}=0V	1.2*		12*	mA
Gate to Source 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=1kHz		2.4		pF
Reverse Transfer Capacitance	c_{rss}			0.035		pF
Power Gain	PG	V_{DS}=10V, V_{GS}=0V, f=100MHz		27		dB
Noise Figure	NF	See specified Test Circut.		1.8	3.0	dB

*: The 2SK544 is classified by I_{DSS} as follows (unit:mA):

1.2 D 3.0	2.5 E 6.0	5.0 F 12

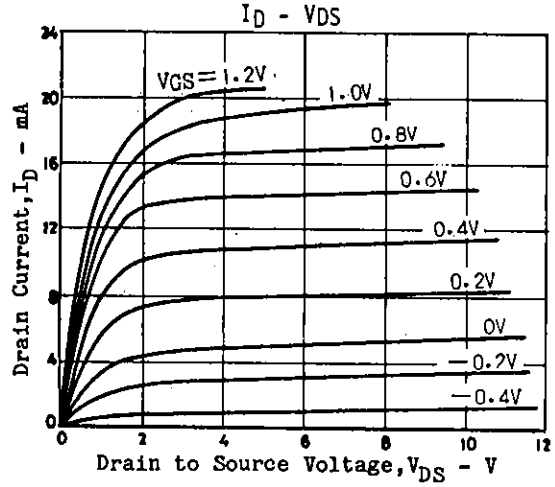
Package Dimensions 2040
(unit: mm)



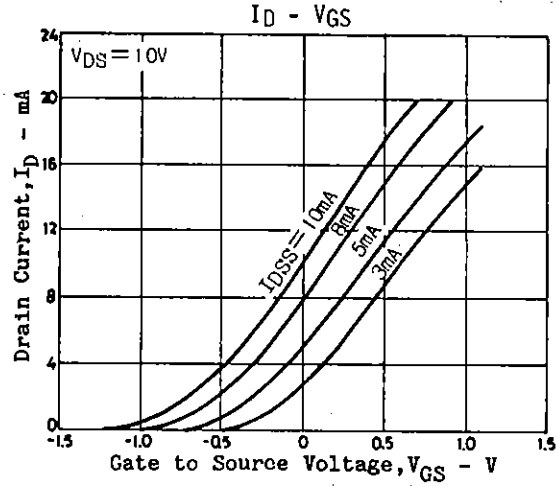
G: Gate
S: Source
D: Drain

SANYO: SPA

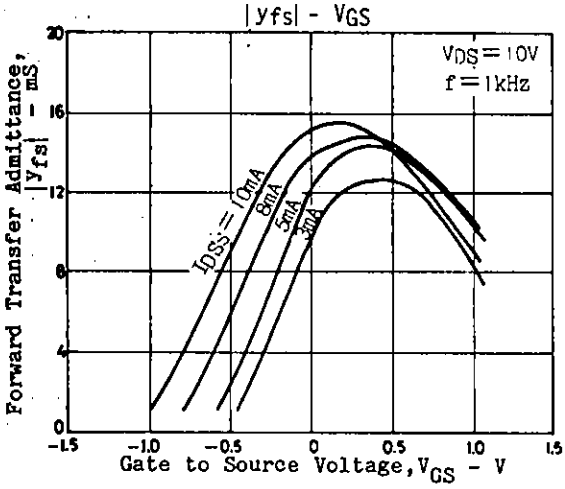
I_D - V_{DS}



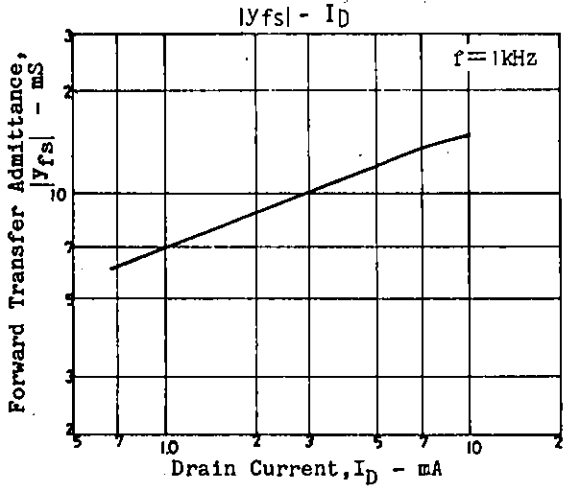
I_D - V_{GS}



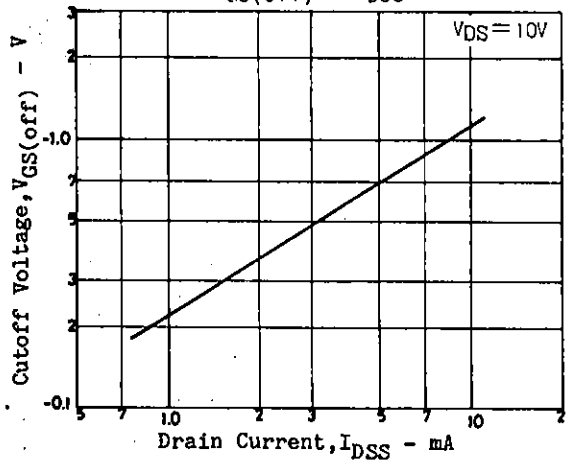
|yfs| - V_{GS}



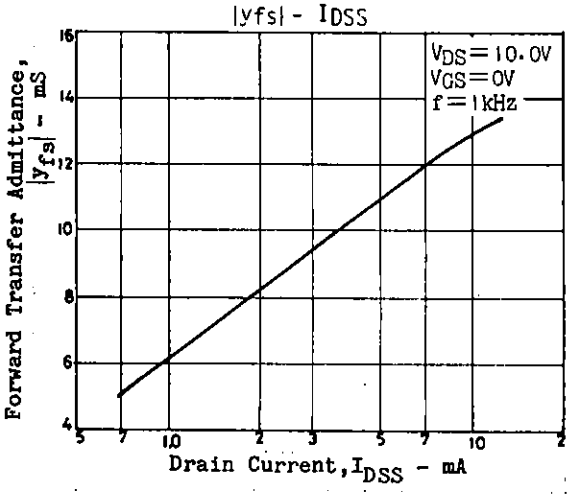
|yfs| - I_D



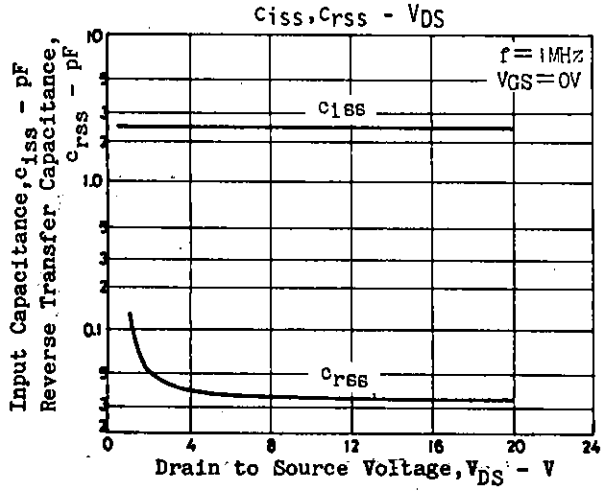
$V_{GS(off)}$ - I_{DSS}



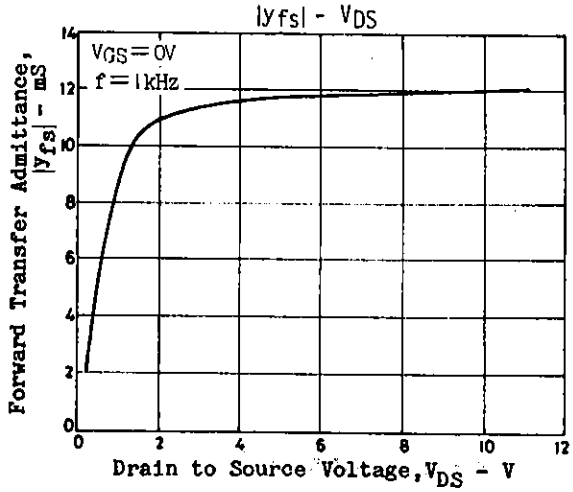
|yfs| - I_{DSS}



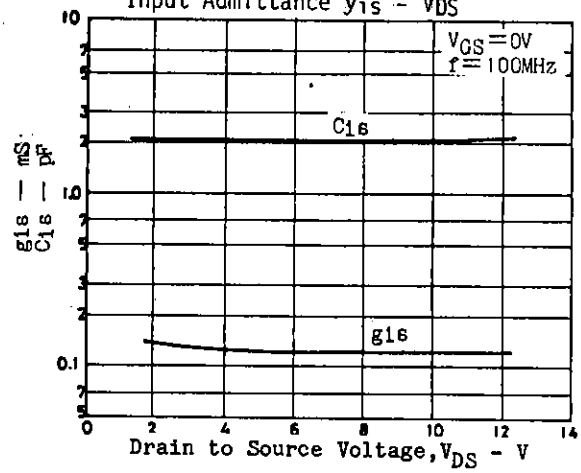
C_{iss}, C_{rss} - V_{DS}



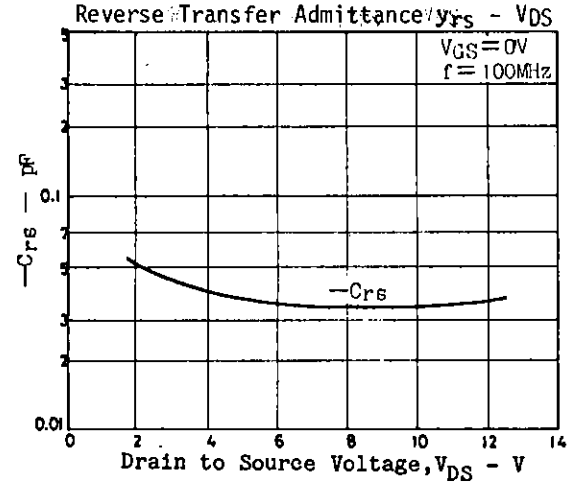
|yfs| - V_{DS}



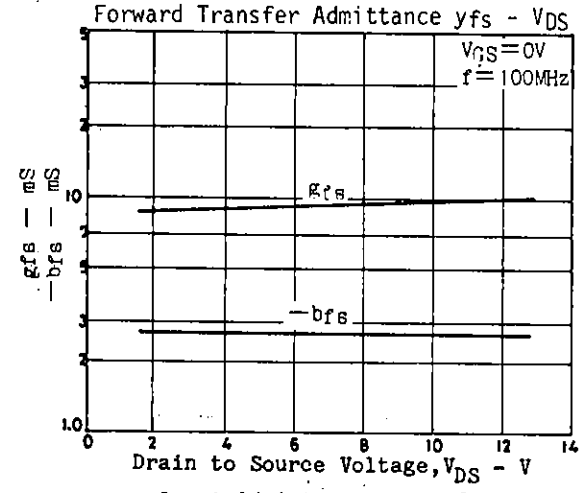
Input Admittance y_{is} - V_{DS}



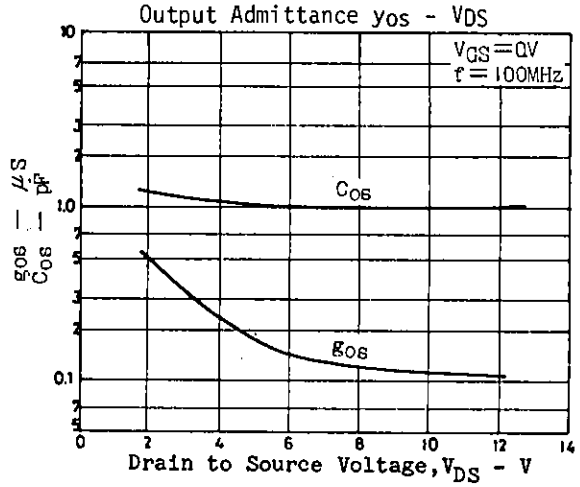
Reverse Transfer Admittance y_{rs} - V_{DS}



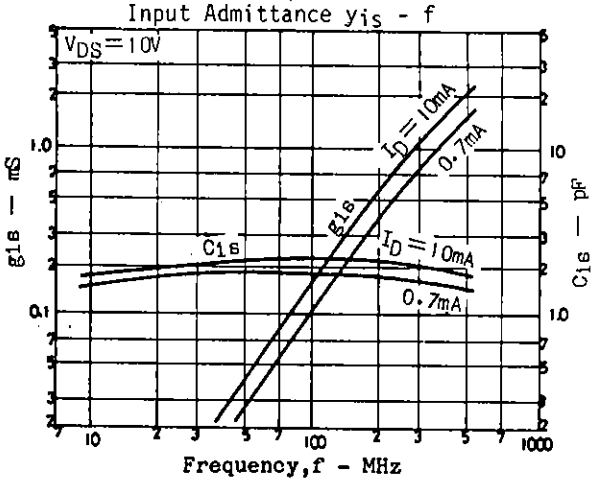
Forward Transfer Admittance y_{fs} - V_{DS}



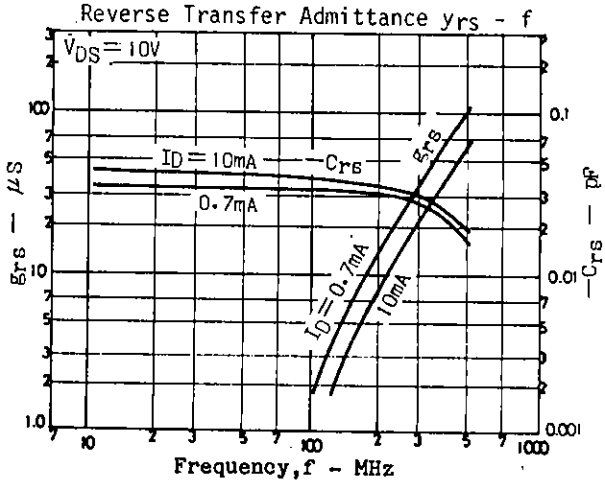
Output Admittance y_{os} - V_{DS}



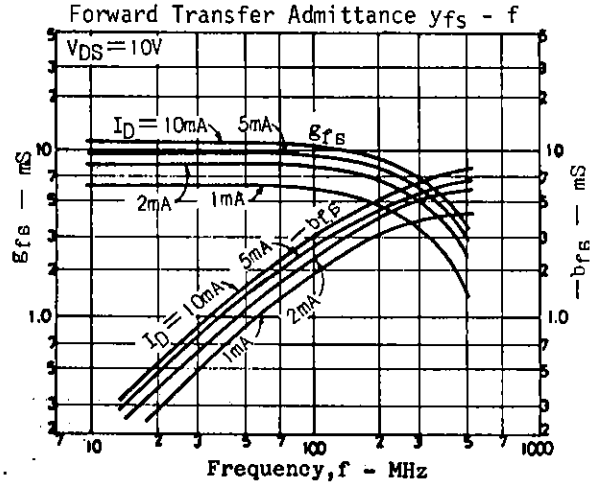
Input Admittance y_{is} - f



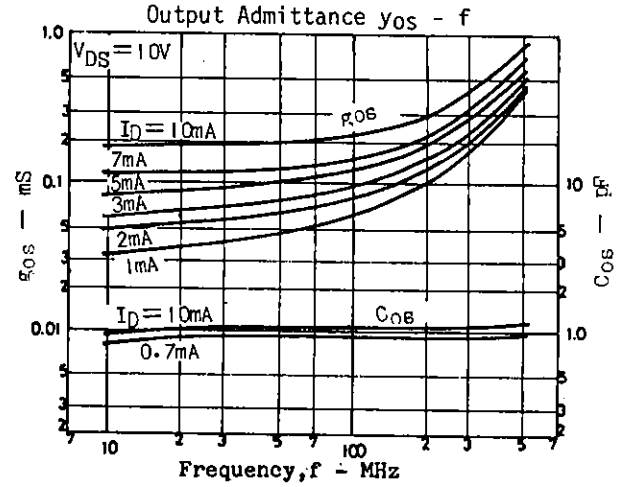
Reverse Transfer Admittance y_{rs} - f

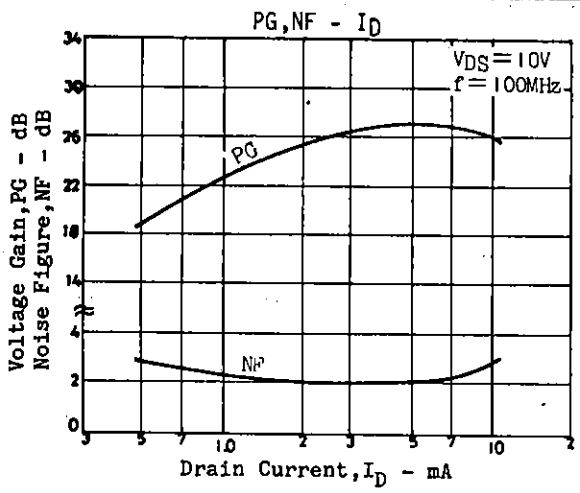


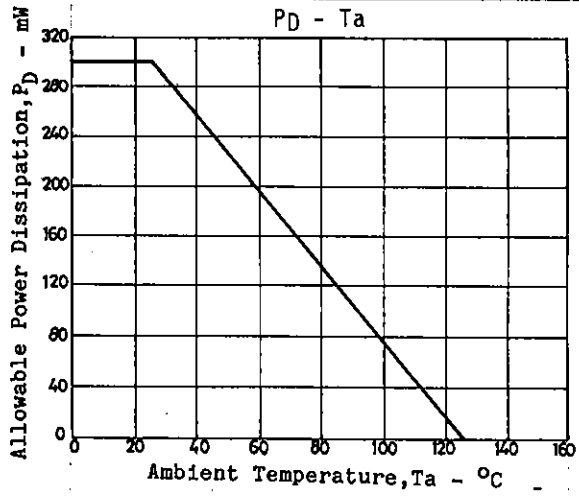
Forward Transfer Admittance y_{fs} - f



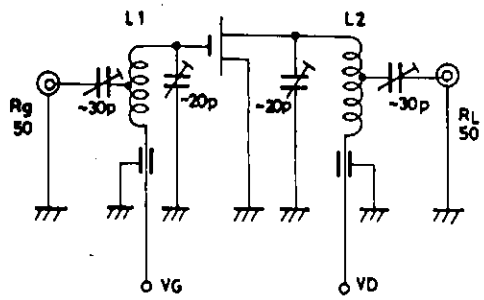
Output Admittance y_{os} - f







PG, NF Test Circuit



Unit(Capacitance : F)

L1: 1.0mmø plated wire 10mmø 6T, tap: 3T from H side
L2: 1.0mmø plated wire 10mmø 7T, tap: 4T from H side