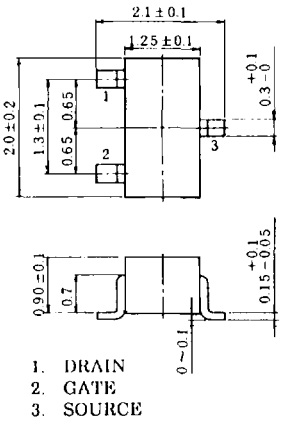
SILICON N CHANNEL MOS TYPE
FIELD EFFECT TRANSISTOR

2SK882

FM TUNER, VHF RF AMPLIFIER APPLICATIONS.

- Low Reverse Transfer Capacitance : C_{rss} = 0.025pF (Typ.)
- Low Noise Figure : NF = 1.7dB (Typ.)
- High Power Gain : G_{ps} = 28dB (Typ.)
- Recommend Operation Voltage : 5~15V

Unit in mm



1. DRAIN
2. GATE
3. SOURCE

USM	
JEDEC	—
EIAJ	SC-70
TOSHIBA	2-2E1C

Weight : 0.006g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	±5	V
Drain Current	I_D	30	mA
Drain Power Dissipation	P_D	100	mW
Channel Temperature	Tch	125	°C
Storage Temperature	T_{stg}	−55~125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	V_{DS} = 0, V_{GS} = ±5V	—	—	±50	nA
Drain-Source Voltage	V_{DSX}	V_{GS} = −4V, I_D = 100μA	20	—	—	V
Drain Current	I_{DSS} (Note)	V_{DS} = 10V, V_{GS} = 0	3	—	14	mA
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$	V_{DS} = 10V, I_D = 100μA	—	—	−2.5	V
Forward Transfer Admittance	$\|Y_{fs}\|$	V_{DS} = 10V, V_{GS} = 0, f = 1kHz	—	10	—	mS
Input Capacitance	C_{iss}	V_{DS} = 10V, V_{GS} = 0, f = 1MHz	—	3.0	4.3	pF
Reverse Transfer Capacitance	C_{rss}		—	0.025	0.04	pF
Power Gain	G_{ps}	V_{DD} = 10V, f = 100MHz (Fig.1)	20	28	—	dB
Noise Figure	NF		—	1.7	3.0	dB

Note : I_{DSS} Classification Y : 3.0~7.0mA GR : 6.0~14.0mA

Marking

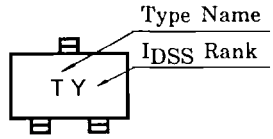
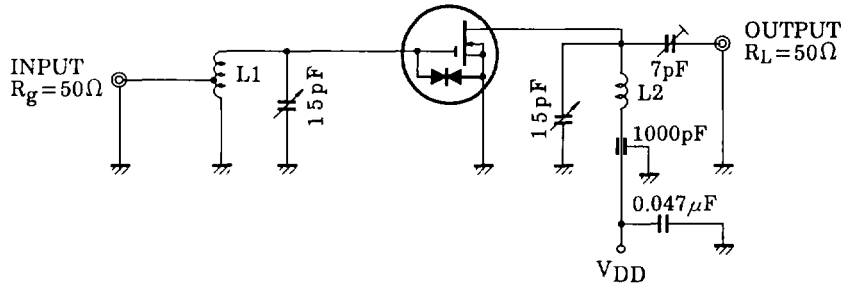
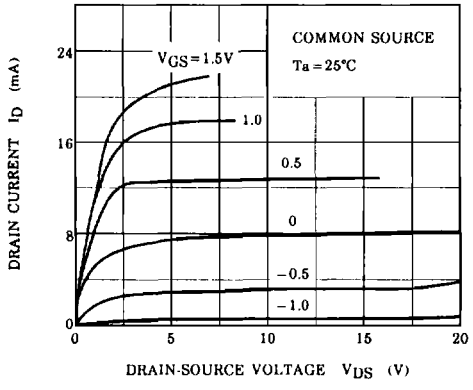


Fig.1 : G_{ps}, NF TEST CIRCUIT

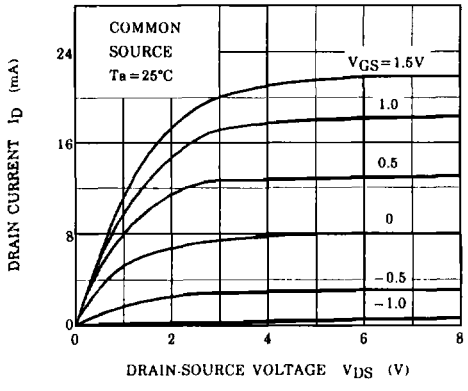


L1 : 1.0mmϕ SILVER PLATED COPPER WIRE
4.0T, 8mmϕ ID
TAP at 1.0T FROM COIL END
L2 : 1.0mmϕ SILVER PLATED COPPER WIRE
3.0T, 8mmϕ ID, 10mm LENGTH

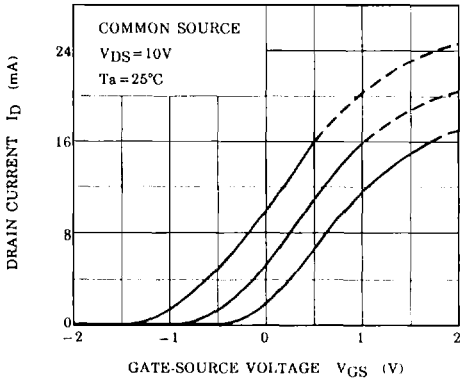
I_D – V_{DS}



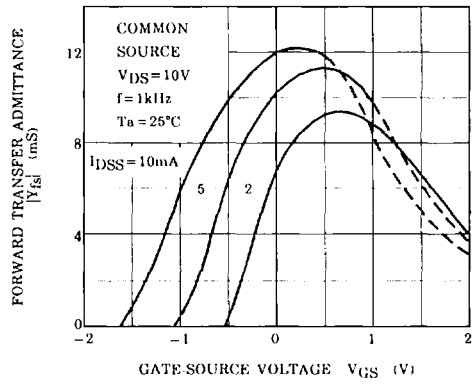
I_D – V_{DS} (LOW VOLTAGE REHION)



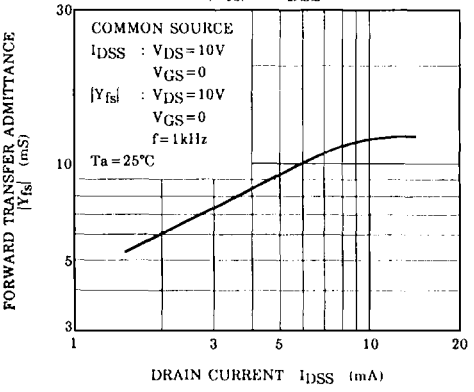
I_D – V_{GS}



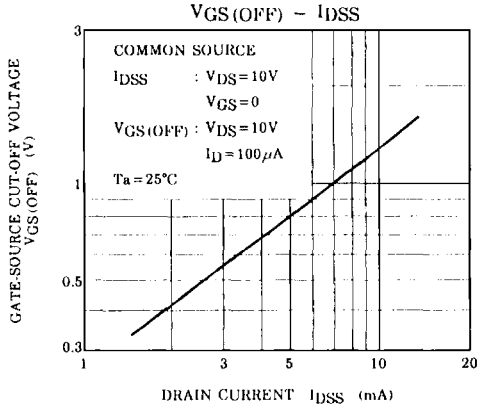
$|Y_{fs}|$ – V_{GS}



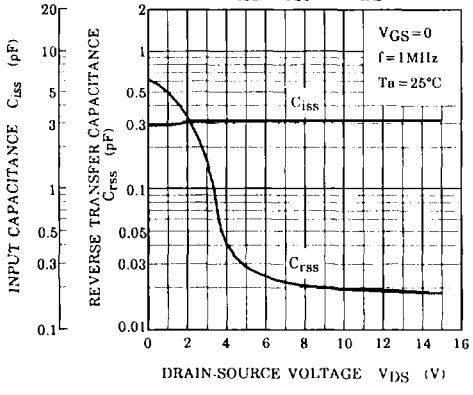
$|Y_{fs}|$ – I_{DSS}



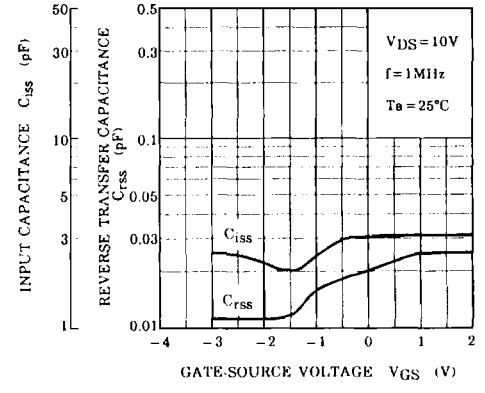
$V_{GS(OFF)}$ – I_{DSS}



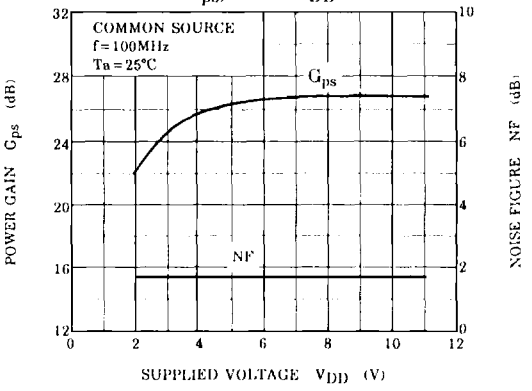
C_{iss}, C_{rss} – V_{DS}



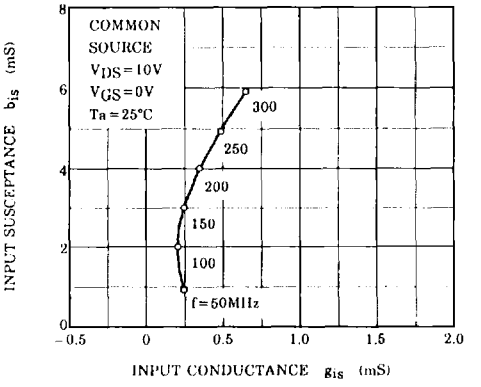
C_{iss}, C_{rss} – V_{GS}



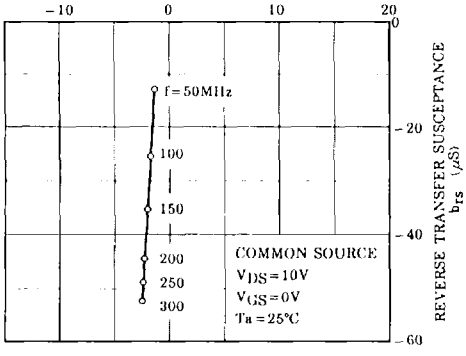
G_{ps}, NF – V_{DD}



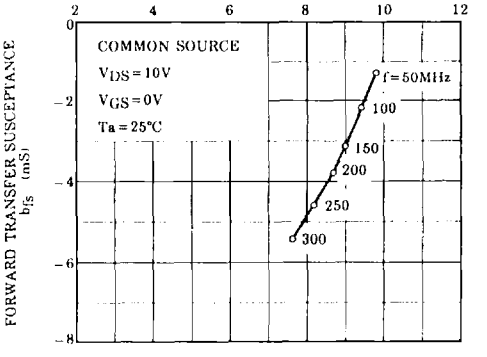
Y_{is} – f



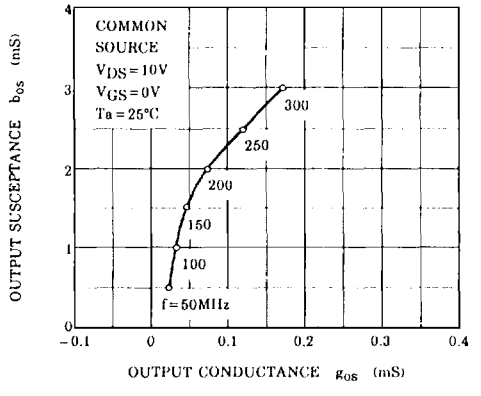
Y_{rs} – f



Y_{fs} – f



Y_{os} – f



P_D – Ta