SILICON P CHANNEL JUNCTION TYPE

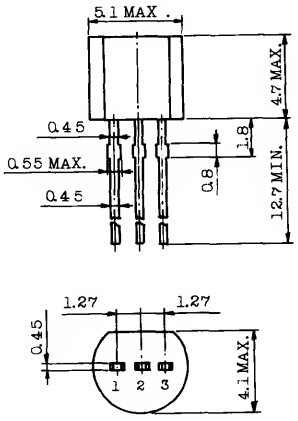
2SJ111

FOR LOW NOISE AUDIO AMPLIFIER APPLICATIONS.

FEATURES:

- Recommended for First Stages of EQ Amplifier and MC Head Amplifiers.
- High $|Y_{fs}|$
  : $|Y_{fs}|$=40mS(Typ.) (V_{DS}=-10V, V_{GS}=0, I_{DSS}=-5mA)
- Low Noise : NF=1.0dB(Typ.)
  (V_{DS}=-10V, I_D=-5mA, f=1kHz, R_g=100Ω)
- High Input Impedance : I_{GSS}=1nA(Max.) (V_{DG}=-25V)
- Complementary to 2SK369

Unit in mm



1. DRAIN
2. GATE
3. SOURCE

JEDEC	TO-92MOD
EIAJ	—
TOSHIBA	2-5F1D

Weight : 0.21g

MAXIMUM RATINGS (Ta=25°C)

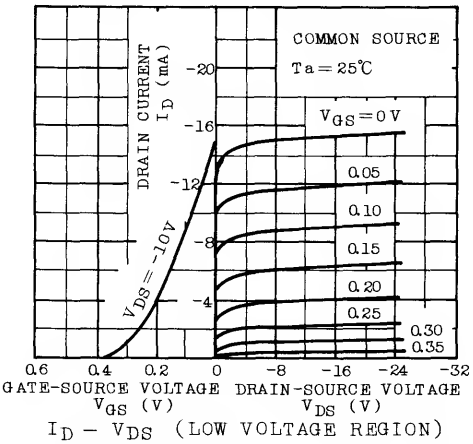
CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	V_{GDS}	25	V
Gate Current	I_G	-10	mA
Drain Power Dissipation	P_D	400	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-55~125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

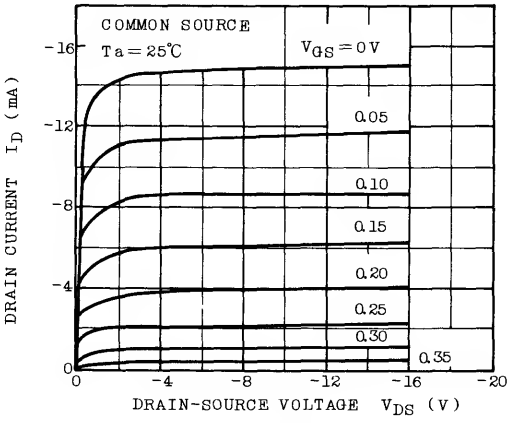
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate-Source Cut-off Current	I_{GSS}	V_{GS}=25V, V_{DS}=0	-	-	1.0	nA
Gate-Drain Breakdown Voltage	$V_{(BR)GDS}$	V_{DS}=0, I_G=100μA	25	-	-	V
Drain Current	I_{DSS} (Note)	V_{DS}=-10V, V_{GS}=0	-5.0	-	-30	mA
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$	V_{DS}=-10V, I_D=-0.1μA	0.3	-	2.0	V
Forward Transfer Adimttance	$\|Y_{fs}\|$	V_{DS}=-10V, V_{GS}=0, f=1kHz (TYP:I_{DSS}=-5mA)	30	40	-	mS
Input Capacitance	C_{iss}	V_{DS}=-10V, V_{GS}=0, f=1MHz	-	185	-	pF
Reverse Transfer Capacitance	C_{rss}	V_{DG}=-10V, I_D=0, f=1MHz	-	55	-	pF
Noise Figure	NF(1)	V_{DS}=-10V, R_g=100Ω I_D=-5mA, f=100Hz	-	5	10	dB
	NF(2)	V_{DS}=-10V, R_g=100Ω I_D=-5mA, f=1kHz	-	1	2	

Note : I_{DSS} Classification GR : -5.0~-10.0, BL : -8.0~-16.0, V : -14.0~-30.0

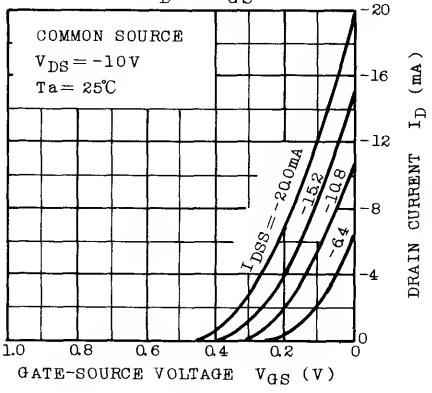
STATIC CHARACTERISTICS



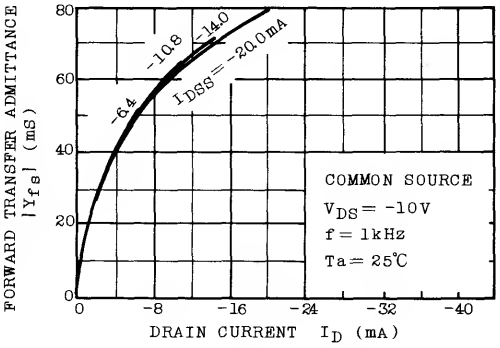
I_D – V_{DS} (LOW VOLTAGE REGION)



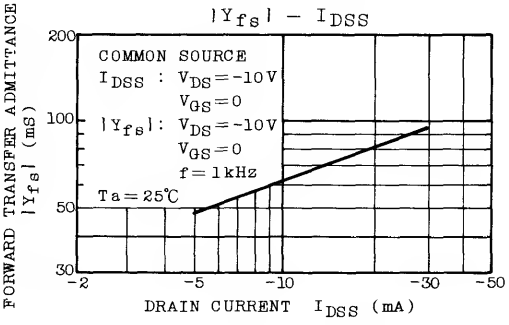
I_D – V_{GS}



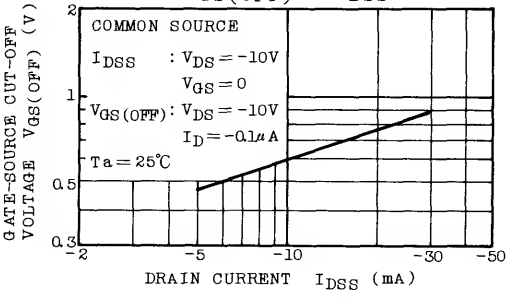
$|Y_{fs}|$ – I_D



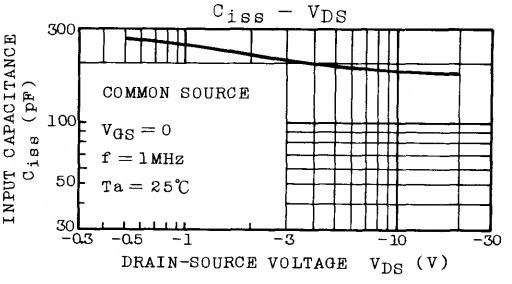
$|Y_{fs}|$ – I_{DSS}



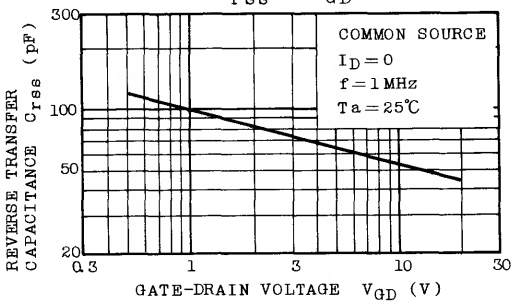
$V_{GS(OFF)}$ – I_{DSS}



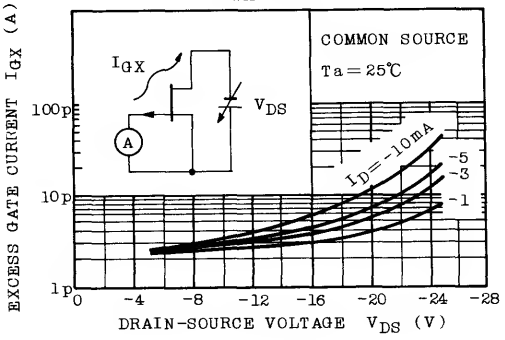
C_{iss} – V_{DS}



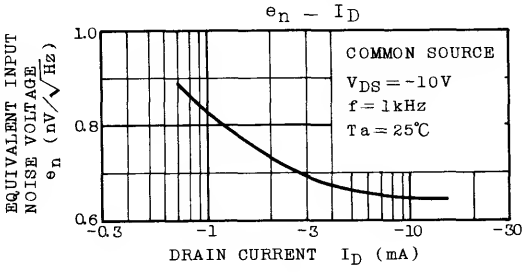
C_{rss} – V_{GD}



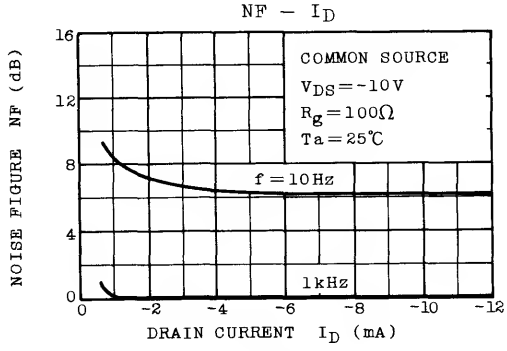
I_{GX} – V_{DS}



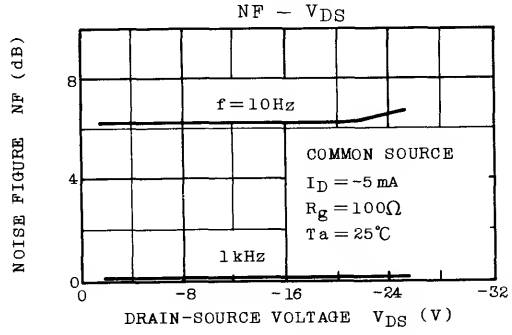
e_n – I_D



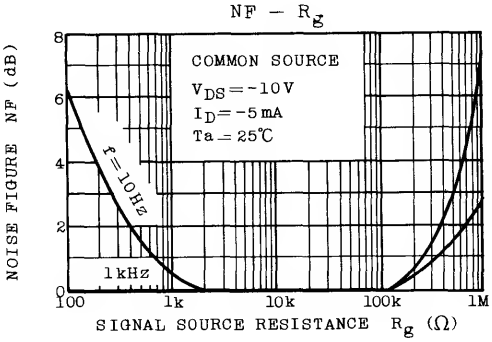
NF – I_D



NF – V_{DS}



NF – R_g



NF – f