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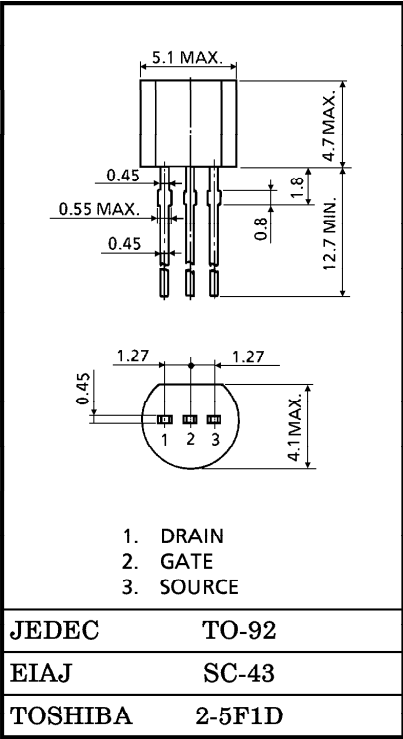
LOW NOISE AUDIO AMPLIFIER APPLICATIONS

Unit in mm

- Recommended for first stages of EQ Amplifiers and M.C. Head Amplifiers.
- High $|Y_{fs}|$
: $|Y_{fs}|=22\text{mS (Typ.)}$ ($V_{DS}=-10\text{V}$, $V_{GS}=0$, $I_{DSS}=-3\text{mA}$)
- Low Noise : $E_n=0.95\text{nV}/\sqrt{\text{Hz}}$ (Typ.)
($V_{DS}=-10\text{V}$, $I_D=-1\text{mA}$, $f=1\text{kHz}$)
- High Input Impedance : $I_{GSS}=1.0\text{nA (Max.)}$ ($V_{GS}=25\text{V}$)
- Complimentary to 2SK170

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



Weight : 0.21g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

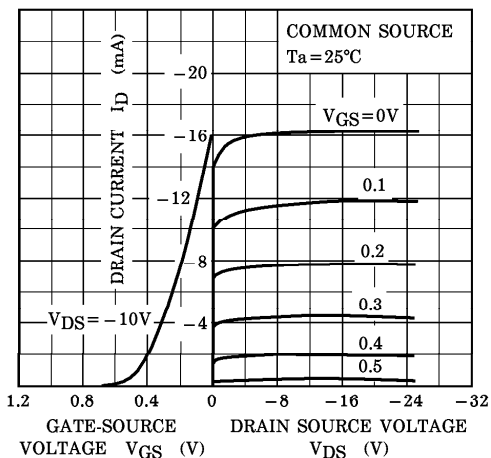
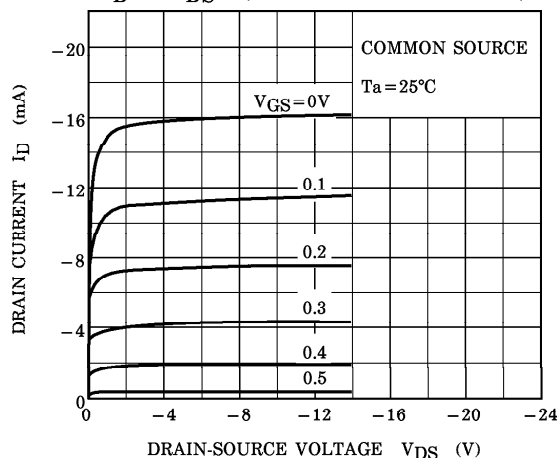
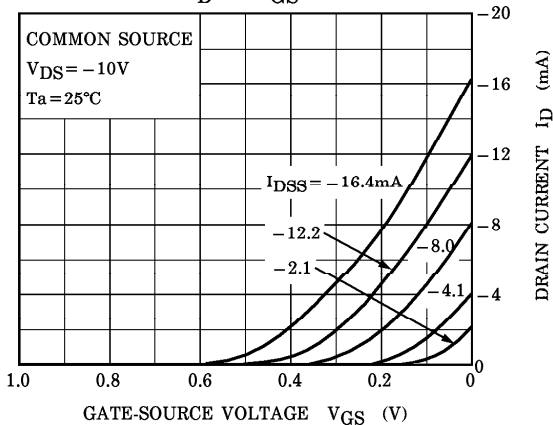
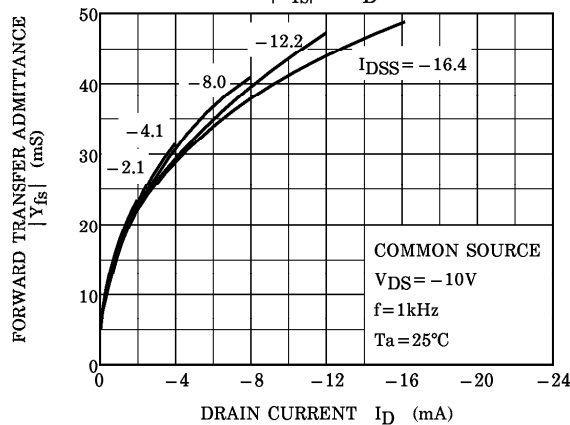
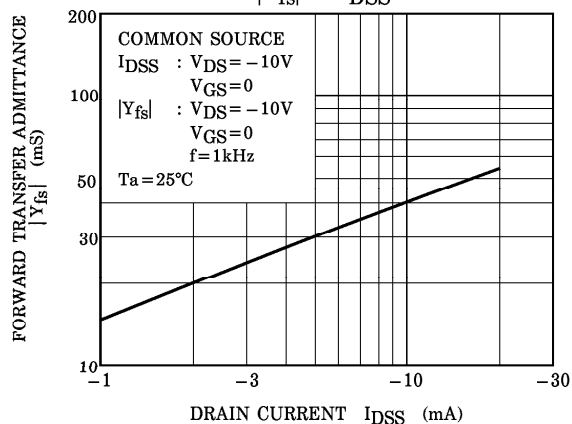
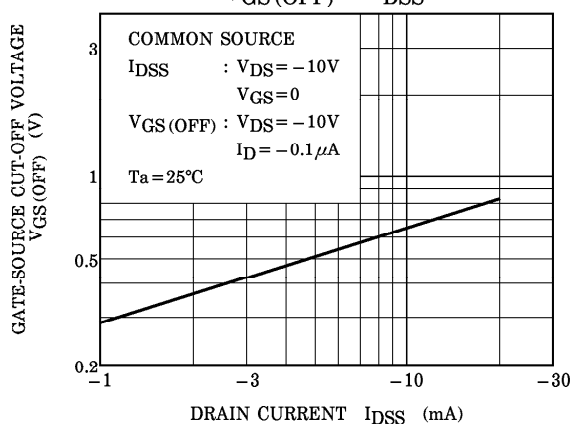
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Cut-off Current	I_{GSS}	$V_{GS}=25\text{V}$, $V_{DS}=0$	—	—	1.0	nA
Gate-Drain Breakdown Voltage	$V_{(BR)GDS}$	$V_{DS}=0$, $I_G=100\mu\text{A}$	25	—	—	V
Drain Current	I_{DSS} (Note)	$V_{DS}=-10\text{V}$, $V_{GS}=0$	-2.6	—	-20	mA
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$	$V_{DS}=-10\text{V}$, $I_D=-0.1\mu\text{A}$	0.15	—	2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=-10\text{V}$, $V_{GS}=0$, $f=1\text{kHz}$	8	22	—	mS
Input Capacitance	C_{iss}	$V_{DS}=-10\text{V}$, $V_{GS}=0$, $f=1\text{MHz}$	—	105	—	pF
Reverse Transfer Capacitance	C_{rss}	$V_{DG}=-10\text{V}$, $I_D=0$, $f=1\text{MHz}$	—	32	—	pF
Noise Figure	NF (1)	$V_{DS}=-10\text{V}$, $I_D=-1\text{mA}$, $R_G=1\text{k}\Omega$, $f=10\text{Hz}$	—	1.0	10	dB
	NG (2)	$V_{DS}=-10\text{V}$, $I_D=-1\text{mA}$, $R_G=1\text{k}\Omega$, $f=1\text{kHz}$	—	0.5	2	

Note : I_{DSS} Classification GR : -2.6~-6.5mA, BL : -6.0~-12mA, V : -10~-20mA

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STATIC CHARACTERISTICS

 $I_D - V_{DS}$ (LOW VOLTAGE REGION) $I_D - V_{GS}$  $|Y_{fs}| - I_D$  $|Y_{fs}| - I_{DSS}$  $V_{GS}(\text{OFF}) - I_{DSS}$ 

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