

LOW NOISE AUDIO AMPLIFIER APPLICATIONS.
DIFFERENTIAL AMPLIFIER APPLICATIONS.

FEATURES:

- Recommended for first stages of EQ Amplifiers and M.C. Head Amplifiers.
- High $|y_{fs}|$: $|y_{fs}|=40\text{mS}(\text{Typ.})$
($V_{DS}=-10\text{V}$, $V_{GS}=0$, $I_{DSS}=-5\text{mA}$)
- Excellent Pair Characteristics
: $|V_{GS1}-V_{GS2}|=20\text{mV}(\text{Max.})$
($V_{DS}=-10\text{V}$, $I_D=-5\text{mA}$)
- Low Noise : $NF=1.0\text{dB}(\text{Typ.})$
($V_{DS}=-10\text{V}$, $I_D=-5\text{mA}$, $f=1\text{kHz}$, $R_g=100\Omega$)
- High Input Impedance : $I_{GSS}=1\text{nA}(\text{Max.})$
($V_{GS}=25\text{V}$)
- Complementary to 2SK146

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

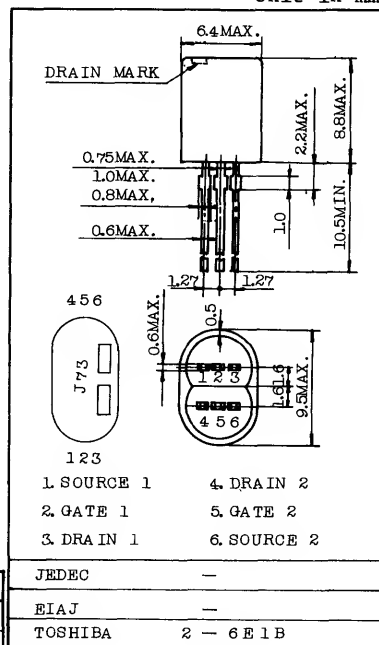
CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	V_{GDS}	25	V
Gate Current	I_G	-10	mA
Drain Power Dissipation	P_D	600×2	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim 125$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage 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	$I_{DSS}(\text{Note})$	$V_{DS}=-10\text{V}$, $V_{GS}=0$	-5.0	-	-30	mA
Gate-Source Cut-off Voltage	$V_{GS}(\text{OFF})$	$V_{DS}=-10\text{V}$, $I_D=-0.1\mu\text{A}$	0.3	-	2.0	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=-10\text{V}$, $V_{GS}=0$, $f=1\text{kHz}$	25	40	-	mS
Differential Gate-Source Voltage	$ V_{GS1}-V_{GS2} $	$V_{DS}=-10\text{V}$, $I_D=-5\text{mA}$	-	-	20	mV
Input Capacitance	C_{iss}	$V_{DS}=-10\text{V}$, $V_{GS}=0$, $f=1\text{MHz}$	-	185	-	pF
Reverse Transfer Capacitance	C_{rss}	$V_{DG}=-10\text{V}$, $I_D=0$, $f=1\text{MHz}$	-	55	-	pF
Noise Figure	NF(1)	$V_{DS}=-10\text{V}$, $I_D=-5\text{mA}$ $R_g=100\Omega$, $f=100\text{Hz}$	-	5	10	dB
	NF(2)	$V_{DS}=-10\text{V}$, $I_D=-5\text{mA}$ $R_g=100\Omega$, $f=1\text{kHz}$	-	1	2	

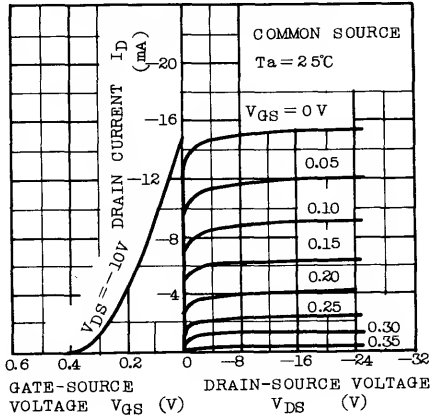
Note: I_{DSS} Classification GR : $-5.0 \sim -10$, BL : $-8.0 \sim -16$, V : $-14 \sim -30$

Unit in mm

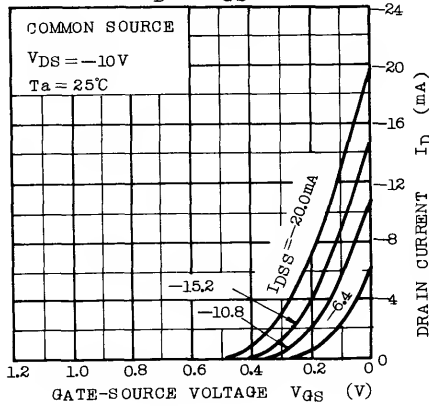


Weight : 1.1g

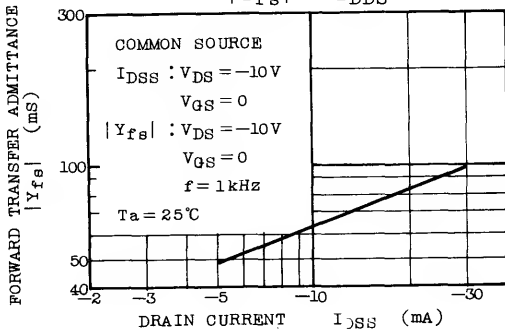
STATIC CHARACTERISTIC



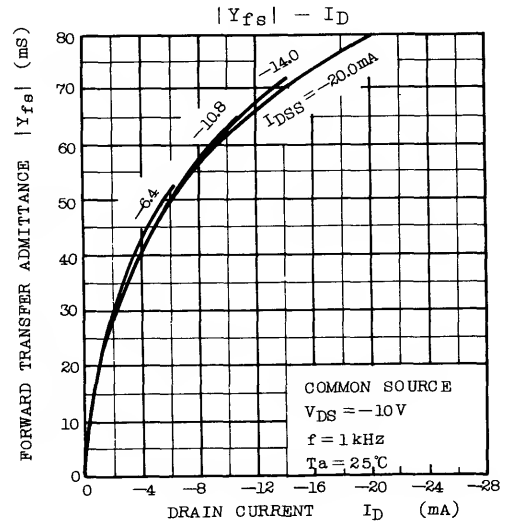
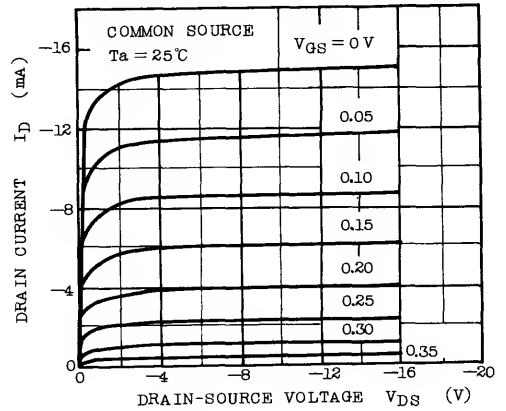
ID - VGS



|Yfs| - IDSS



ID - VDS (LOW VOLTAGE REGION)



VGS(OFF) - IDSS

