

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL JUNCTION TYPE

2SJ107

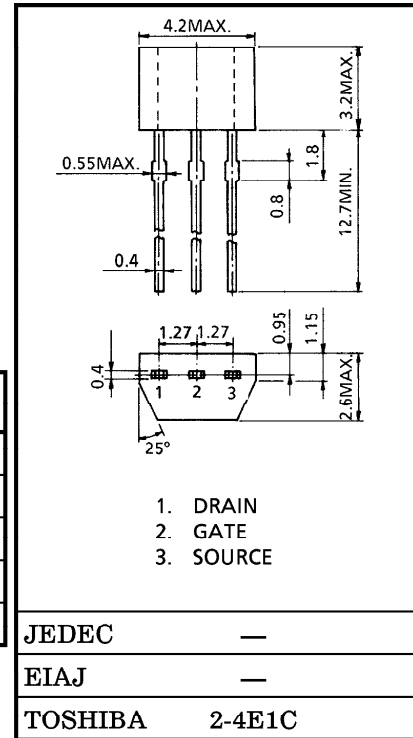
FOR AUDIO AMPLIFIER, ANALOG SWITCH, CONSTANT CURRENT AND IMPEDANCE CONVERTER APPLICATIONS

Unit in mm

- High Input Impedance : $I_{GSS}=1.0\text{nA}$ (Max.) ($V_{GS}=25\text{V}$)
- Low R_{DS} (ON) : R_{DS} (ON) = 40Ω (Typ.)
- Small Package
- Complementary to 2SK366

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	200	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~125	$^\circ\text{C}$



Weight : 0.13g (Typ.)

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

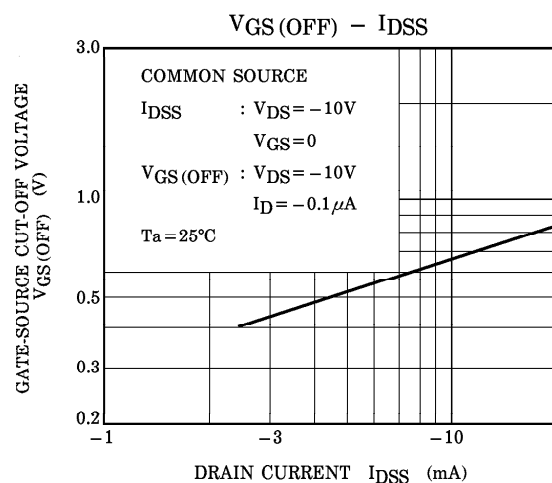
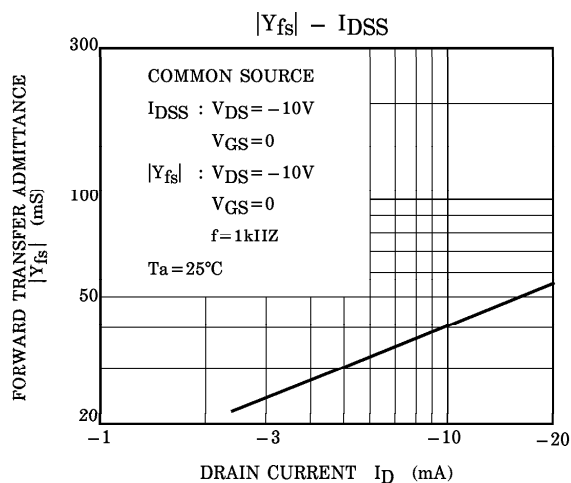
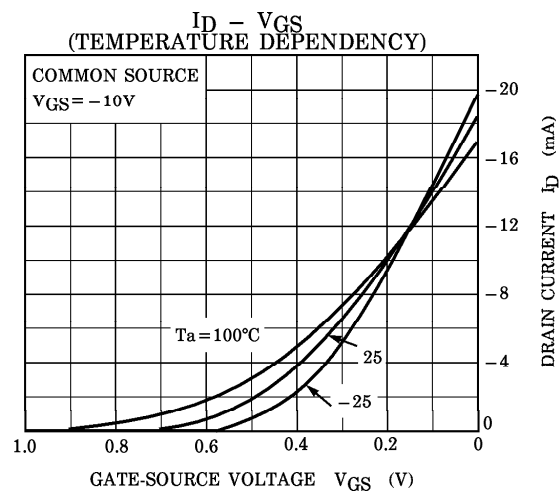
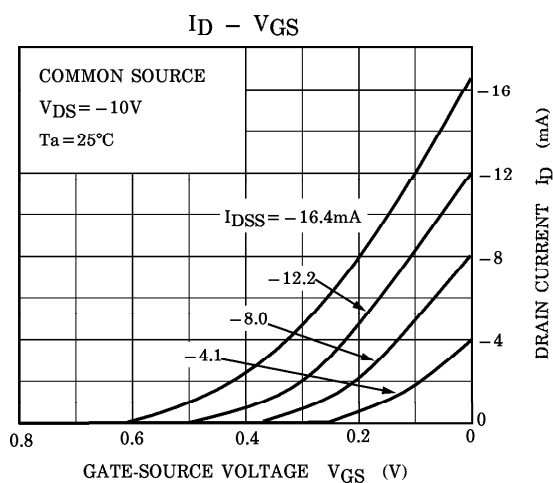
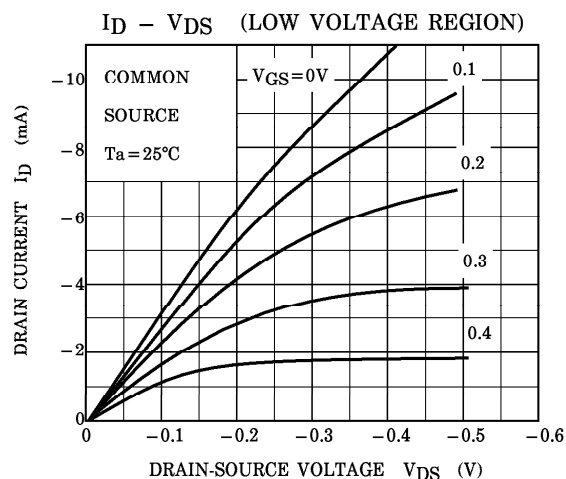
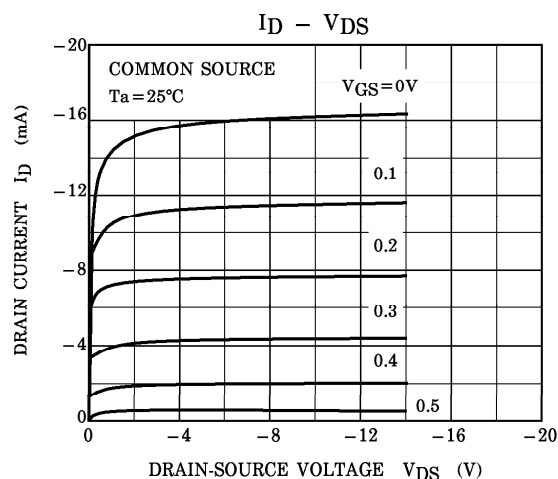
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Cut-off Current	I_{GSS}	$V_{GS}=25\text{V}$, $V_{DS}=0$	—	—	1.0	nA
Gate-Drain Breakdown Voltage	$V_{(BR)GDS}$	$V_{DS}=0$, $I_G=100\mu\text{A}$	25	—	—	V
Drain Current	I_{DSS} (Note 1)	$V_{DS}=-10\text{V}$, $V_{GS}=0$	-2.6	—	-20	mA
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$	$V_{DS}=-10\text{V}$, $I_D=-0.1\mu\text{A}$	0.2	—	2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=-10\text{V}$, $V_{GS}=0$, $f=1\text{kHz}$ (Note 2)	12	30	—	mS
Input Capacitance	C_{iss}	$V_{DS}=-10\text{V}$, $V_{GS}=0$, $f=1\text{MHz}$	—	105	—	pF
Reverse Transfer Capacitance	C_{rss}	$V_{GD}=10\text{V}$, $I_D=0$, $f=1\text{MHz}$	—	32	—	pF
Drain-Source ON Resistance	$R_{DS(ON)}$	$V_{DS}=-10\text{mV}$, $V_{GS}=0$ (Note 2)	—	40	—	Ω

Note 1 : I_{DSS} Classification GR : -2.6~-6.5mA, BL : -6~-12mA, V : -10~-20mA

Note 2 : Condition of the typical Value $I_{DSS}=-5\text{mA}$

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