

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL JUNCTION TYPE

# 2SJ106

AUDIO FREQUENCY AMPLIFIER APPLICATIONS  
 ANALOG SWITCH APPLICATIONS  
 CONSTANT CURRENT APPLICATIONS  
 IMPEDANCE CONVERTER APPLICATIONS

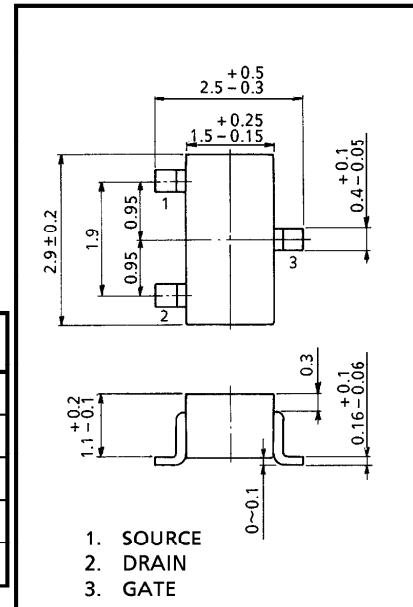
- High Breakdown Voltage :  $V_{GDS} = 50V$
- High Input Impedance :  $I_{GSS} = 1.0nA$  (Max.) ( $V_{GS} = 30V$ )
- Low  $R_{DS}$  (ON) :  $R_{DS}$  (ON) = 270 $\Omega$  (Typ.) ( $I_{DSS} = -5mA$ )

- Small Package

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	$V_{GDS}$	50	V
Gate Current	$I_G$	-10	mA
Drain Power Dissipation	$P_D$	150	mW
Junction Temperature	$T_j$	125	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~125	$^\circ C$

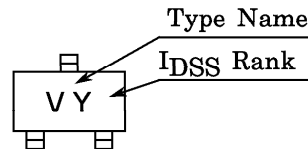
Unit in mm



JEDEC	TO-236MOD
EIAJ	SC-59
TOSHIBA	2-3F1B

Weight : 0.012g

Marking



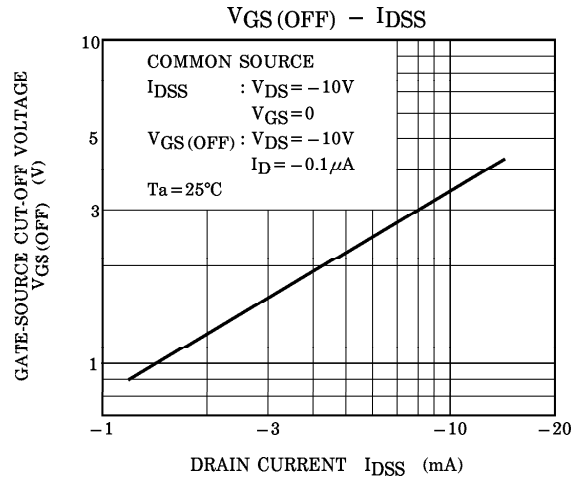
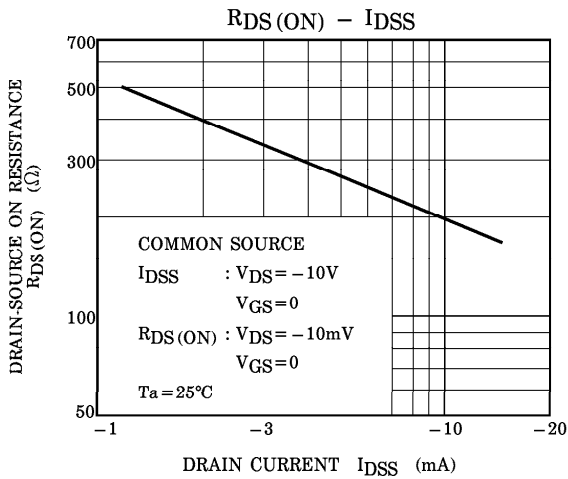
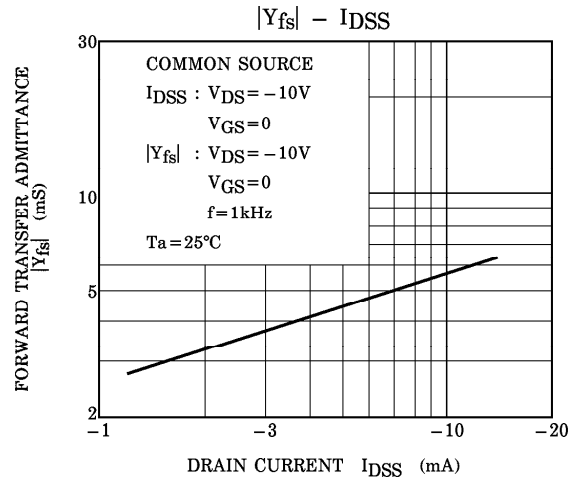
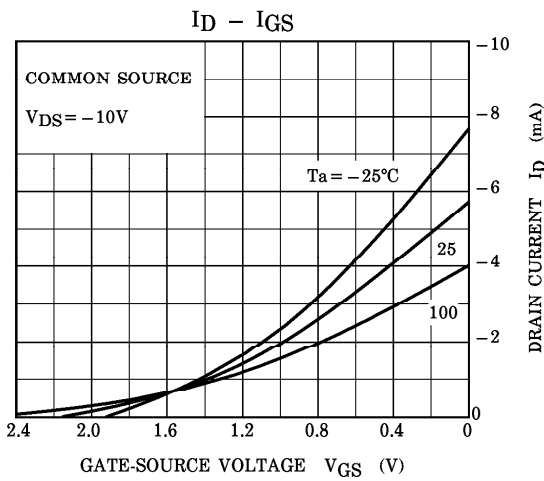
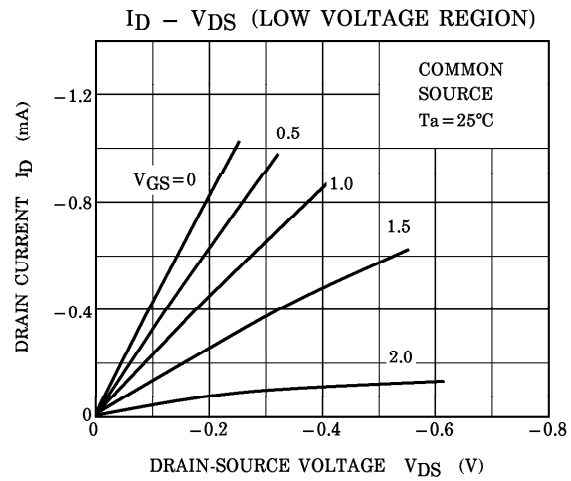
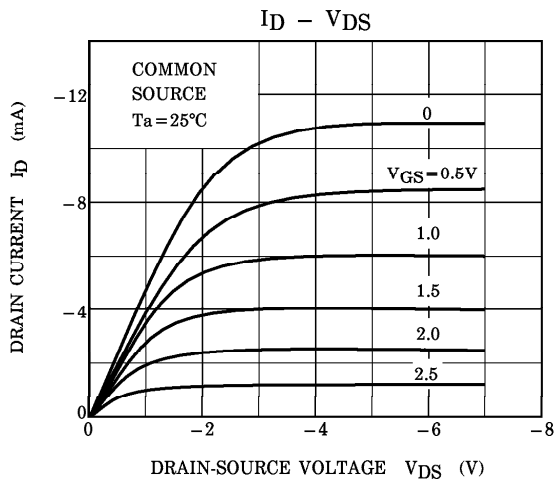
ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Cut-off Current	$I_{GSS}$	$V_{GS} = 30V, V_{DS} = 0$	—	—	1.0	nA
Gate-Drain Breakdown Voltage	$V_{(BR)GDS}$	$V_{DS} = 0, I_G = 100\mu A$	50	—	—	V
Drain Current	$I_{DSS}$ (Note)	$V_{DS} = -10V, V_{GS} = 0$	-1.2	—	-14	mA
Gate-Source Cut-off Voltage	$V_{GS}(OFF)$	$V_{DS} = -10V, I_D = -0.1\mu A$	0.3	—	6.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10V, V_{GS} = 0, f = 1kHz$	1.0	4.0	—	mS
Drain-Source On Resistance	$R_{DS}(ON)$	$V_{DS} = -10mV, V_{GS} = 0$ $I_{DSS} = -5mA$	—	270	—	$\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = -10V, V_{GS} = 0, f = 1MHz$	—	18	—	pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DG} = -10V, I_D = 0, f = 1MHz$	—	3.6	—	pF

Note :  $I_{DSS}$  Classification Y : -1.2~-3.0mA, GR(G) : -2.6~-6.5mA,  
 BL(L) : -6~-14mA

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