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: $V_{GDS} = 50 \text{ V}$
- High input impedance: IGSS = 1.0 nA (max) (VGS = 30 V)
- Low RDS (ON): RDS (ON) = 270 Ω (typ.) (IDSS = -5 mA)
- · Small package

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Gate-drain voltage	V_{GDS}	50	$\langle v \rangle$
Gate current	IG	-10	mA
Drain power dissipation	PD	150	mW
Junction temperature	Tj	125	> °C
Storage temperature range	T _{stg}	-55~125	°C

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the

Toshiba Semiconductor Reliability Handbook ("Handling

Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

1. SOURCE 2. DRAIN 3. GATE TOSHIBA 2.5-0.3 1. SOURCE 2. DRAIN 3. GATE Unit: mm

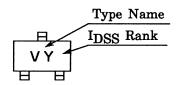
Weight: 0.012 g (typ.)

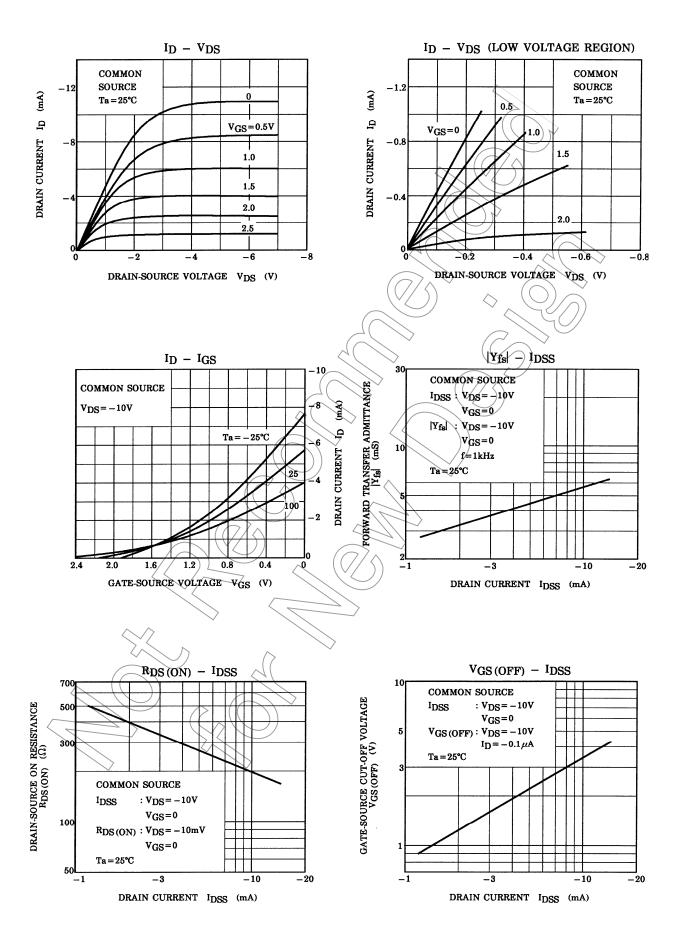
Electrical Characteristics (Ta = 25°C)

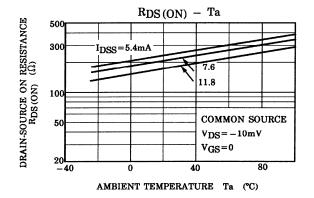
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Gate cut-off current	I _{GSS}	$V_{GS} = 30 \text{ V}, V_{DS} = 0$	_	_	1.0	nA
Gate-drain breakdown voltage	V (BR) GDS	$V_{DS} = 0$, $I_G = 100 \mu A$	50			V
Drain current	I _{DSS} (Note)	$V_{DS} = -10 \text{ V}, V_{GS} = 0$	-1.2		-14	mA
Gate-source cut-off voltage	VGS (OFF)	$V_{DS} = -10 \text{ V}, I_D = -0.1 \mu\text{A}$	0.3		6.0	V
Forward transfer admittance	Yfs	$V_{DS} = -10 \text{ V}, V_{GS} = 0, f = 1 \text{ kHz}$	1.0	4.0		mS
Drain-source on resistance	R _{DS} (ON)	$V_{DS} = -10 \text{ mV}, V_{GS} = 0$ $I_{DSS} = -5 \text{ mA}$		270		Ω
Input capacitance	√ C _{iss}	$V_{DS} = -10 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$	_	18		pF
Reverse transfer capacitance	C _{rss}	$V_{DG} = -10 \text{ V}, I_D = 0, f = 1 \text{ MHz}$	_	3.6	_	pF

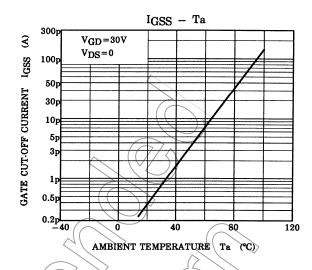
Note: I_{DSS} classification Y: $-1.2\sim-3.0$ mA, GR (G): $-2.6\sim-6.5$ mA, BL (L): $-6\sim-14$ mA

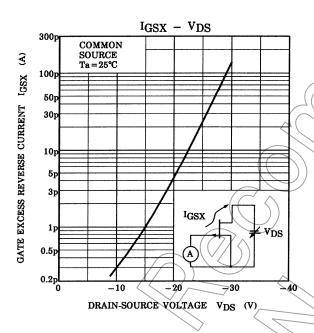
Marking

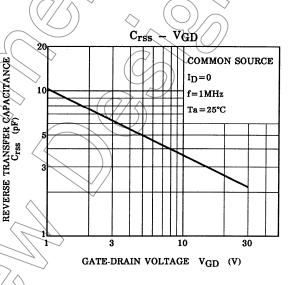


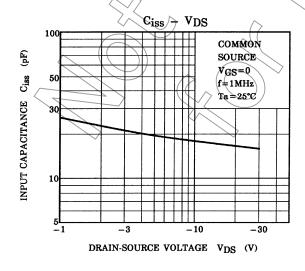


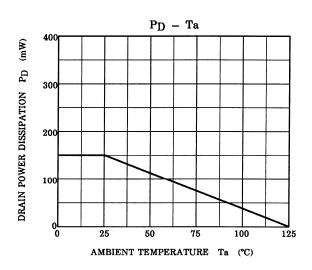












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