TOSHIBA Field Effect Transistor Silicon P Channel Junction Type

## 2SJ103

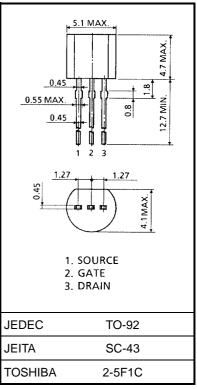
For Audio Amplifier, Analog Switch, Constant Current and Impedance Converter Applications

- High breakdown voltage:  $V_{GDS} = 50 \text{ V}$
- High input impedance:  $I_{GSS} = 1.0 \text{ nA (max) (V}_{GS} = 30 \text{ V)}$
- Low RDS (ON): RDS (ON) = 270  $\Omega$  (typ.) (IDSS = -5 mA)
- Complimentary to 2SK246

## Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Gate-drain voltage	$V_{GDS}$	50	V
Gate current	IG	-10	mA
Drain power dissipation	P <sub>D</sub>	300	mW
Junction temperature	Tj	125	°C
Storage temperature range	T <sub>stg</sub>	-55~125	°C

Unit: mm

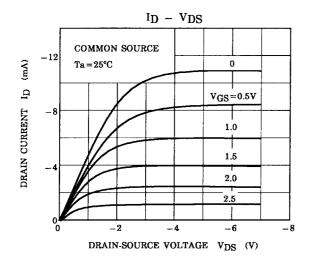


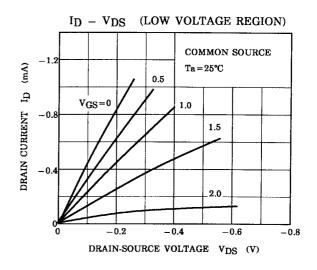
Weight: 0.21 g (typ.)

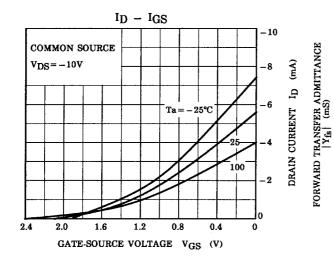
## **Electrical Characteristics (Ta = 25°C)**

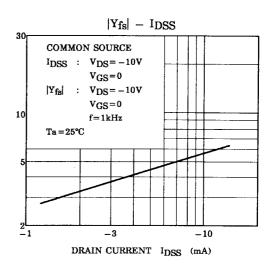
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Gate cut-off current	I <sub>GSS</sub>	$V_{GS} = 30 \text{ V}, V_{DS} = 0$	_	_	1.0	nA
Gate-drain breakdown voltage	V (BR) GDS	$V_{DS} = 0$ , $I_G = 100 \mu A$	50		_	V
Drain current	I <sub>DSS</sub> (Note)	$V_{DS} = -10 \text{ V}, V_{GS} = 0$	-1.2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

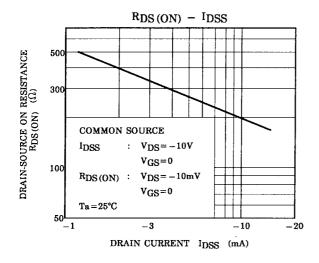
Note: I<sub>DSS</sub> classification Y:  $-1.2\sim-3.0$  mA, GR:  $-2.6\sim-6.5$  mA, BL:  $-6\sim-14$  mA

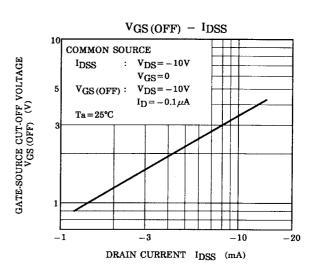




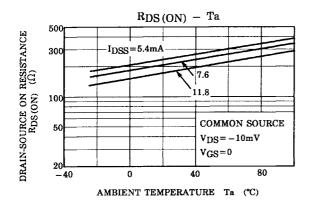


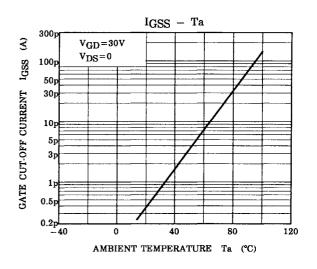


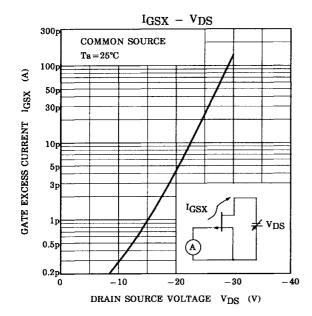


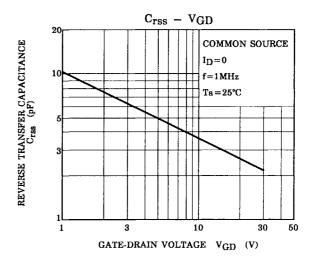


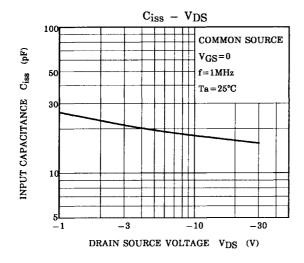
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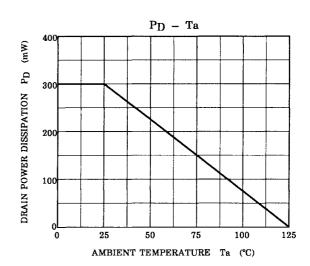












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