TOSHIBA Field Effect Transistor Silicon N Channel Junction Type

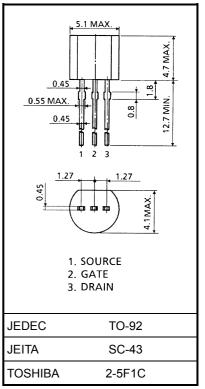
# 2SK246

## For Constant Current, Impedance Converter and DC-AC High Input Impedance Amplifier Circuit Applications

- High breakdown voltage:  $V_{GDS} = -50 V$
- High input impedance:  $I_{GSS} = -1 \text{ nA} (max) (V_{GS} = -30 \text{ V})$

#### Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Gate-drain voltage	V <sub>GDS</sub>	-50	V
Gate current	l <sub>G</sub>	10	mA
Drain power dissipation	PD	300	mW
Junction temperature	Тј	125	°C
Storage temperature range	T <sub>stg</sub>	-55~125	°C



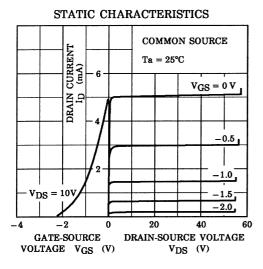
Weight: 0.21 g (typ.)

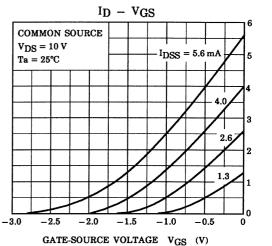
### **Electrical Characteristics (Ta = 25°C)**

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Gate cut-off current	I <sub>GSS</sub>	$V_{GS} = -30 V, V_{DS} = 0$	_	_	-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)	$V_{DS} = 10 \text{ V}, \text{ V}_{GS} = 0$	1.2		14	mA
Gate-source cut-off voltage	V <sub>GS (OFF)</sub>	$V_{DS} = 10 \text{ V}, \text{ I}_{D} = 0.1 \mu\text{A}$	-0.7	_	-6.0	V
Forward transfer admittance	Y <sub>fs</sub>	$V_{DS} = 10 \text{ V}, \text{ V}_{GS} = 0, \text{ f} = 1 \text{ kHz}$	1.5	_	_	mS
Input capacitance	C <sub>iss</sub>	$V_{DS} = 10 \text{ V}, \text{ V}_{GS} = 0, \text{ f} = 1 \text{ MHz}$	_	9.0	_	pF
Reverse transfer capacitance	C <sub>rss</sub>	$V_{DG} = 10 \text{ V}, \text{ I}_{D} = 0, \text{ f} = 1 \text{ MHz}$		2.5		pF

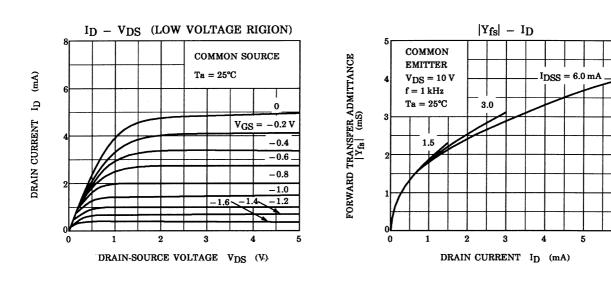
Note: I<sub>DSS</sub> classification Y: 1.2~3.0 mA, GR: 2.6~6.5 mA, BL: 6~14 mA

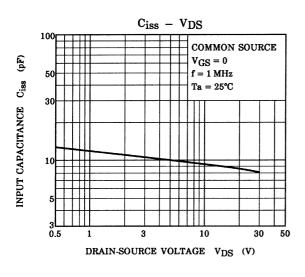
Unit: mm

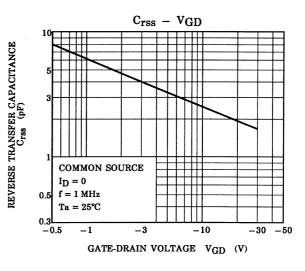




DRAIN CURRENT ID (mA)

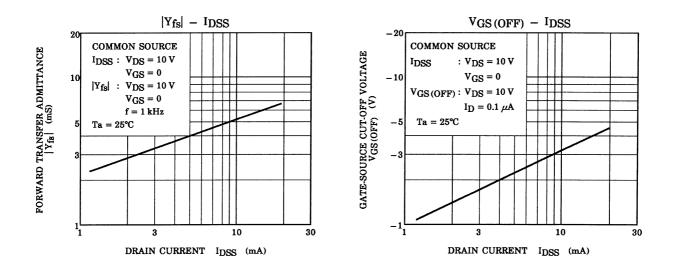


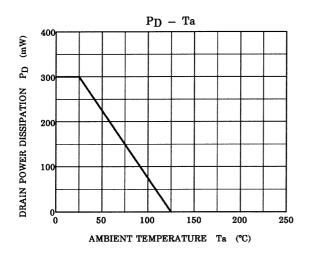




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# **TOSHIBA**





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