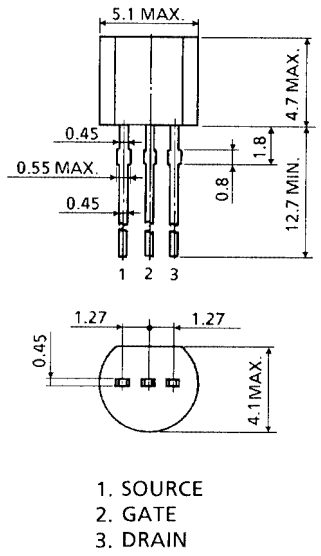
TOSHIBA Field Effect Transistor Silicon N Channel Junction Type

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 nA (max) (V_{GS} = −30 V)

Unit: mm



JEDEC	TO-92
JEITA	SC-43
TOSHIBA	2-5F1C

Weight: 0.21 g (typ.)

Maximum Ratings (Ta = 25°C)

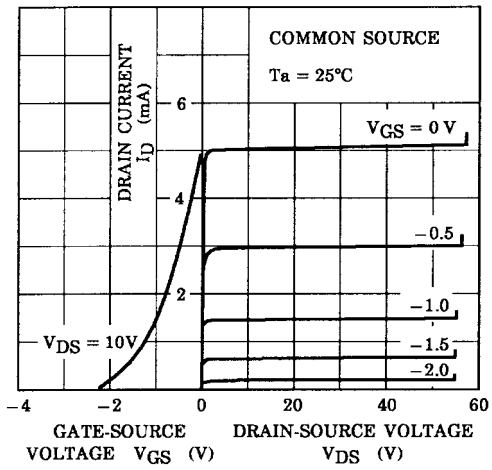
Characteristics	Symbol	Rating	Unit
Gate-drain voltage	V_{GDS}	−50	V
Gate current	I_G	10	mA
Drain power dissipation	P_D	300	mW
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55~125	°C

Electrical Characteristics (Ta = 25°C)

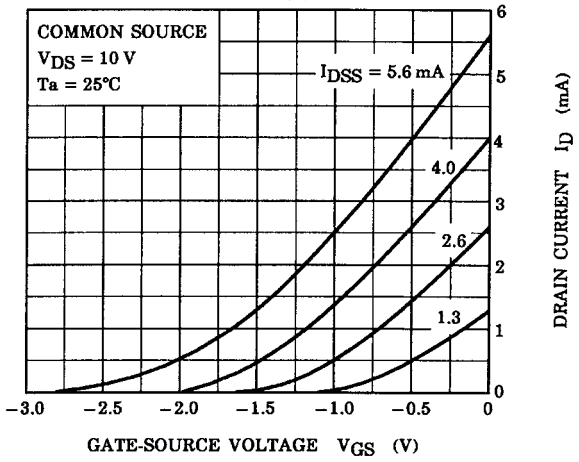
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Gate cut-off current	I_{GSS}	V_{GS} = −30 V, V_{DS} = 0	—	—	−1.0	nA
Gate-drain breakdown voltage	$V_{(BR)\ GDS}$	V_{DS} = 0, I_G = −100 μA	−50	—	—	V
Drain current	I_{DSS} (Note)	V_{DS} = 10 V, V_{GS} = 0	1.2	—	14	mA
Gate-source cut-off voltage	$V_{GS\ (OFF)}$	V_{DS} = 10 V, I_D = 0.1 μA	−0.7	—	−6.0	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS} = 10 V, V_{GS} = 0, f = 1 kHz	1.5	—	—	mS
Input capacitance	C_{iss}	V_{DS} = 10 V, V_{GS} = 0, f = 1 MHz	—	9.0	—	pF
Reverse transfer capacitance	C_{rss}	V_{DG} = 10 V, I_D = 0, f = 1 MHz	—	2.5	—	pF

Note: I_{DSS} classification Y: 1.2~3.0 mA, GR: 2.6~6.5 mA, BL: 6~14 mA

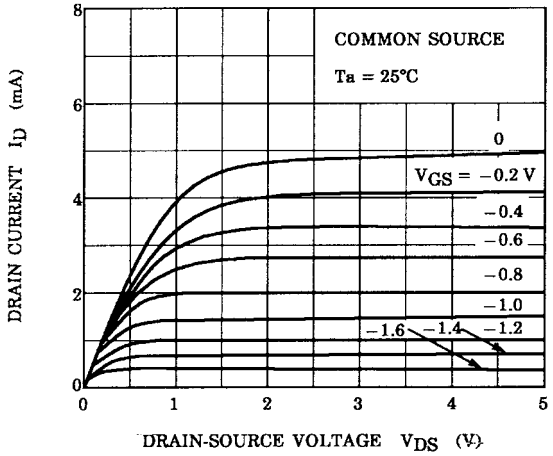
STATIC CHARACTERISTICS



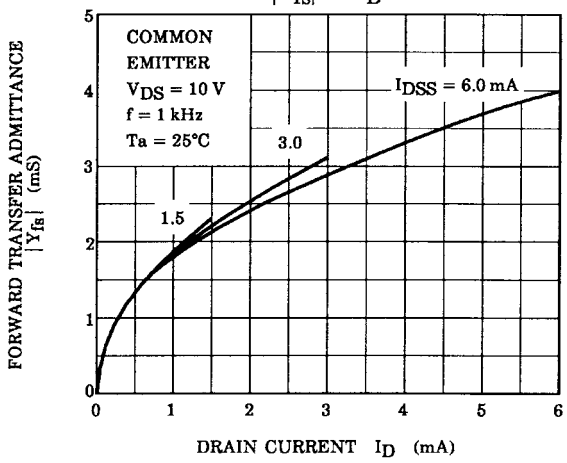
I_D – V_{GS}



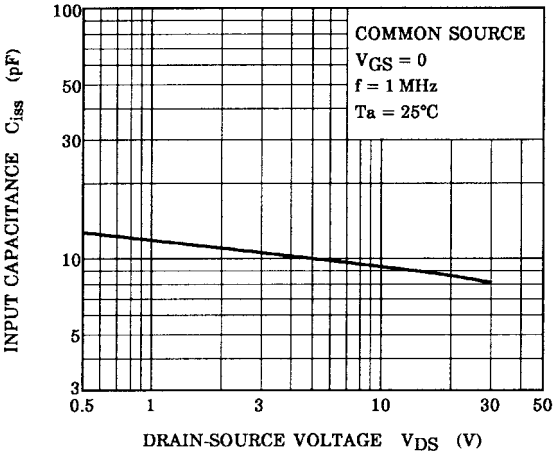
I_D – V_{DS} (LOW VOLTAGE RIGION)



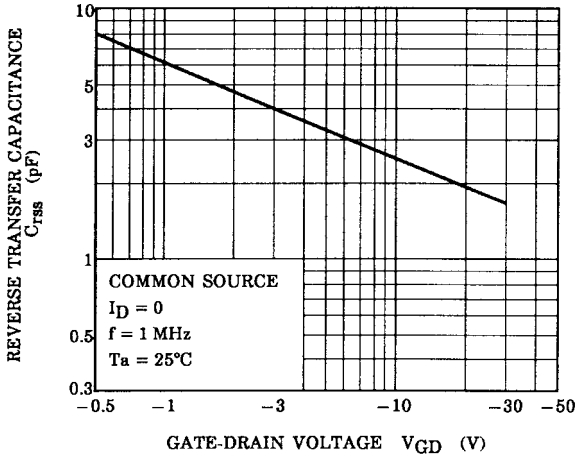
$|Y_{fs}|$ – I_D



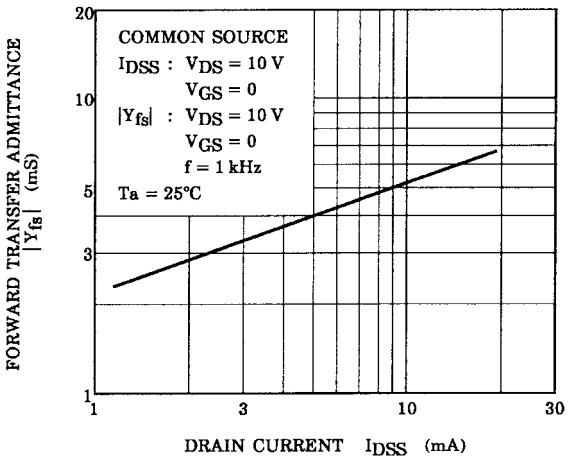
C_{iss} – V_{DS}



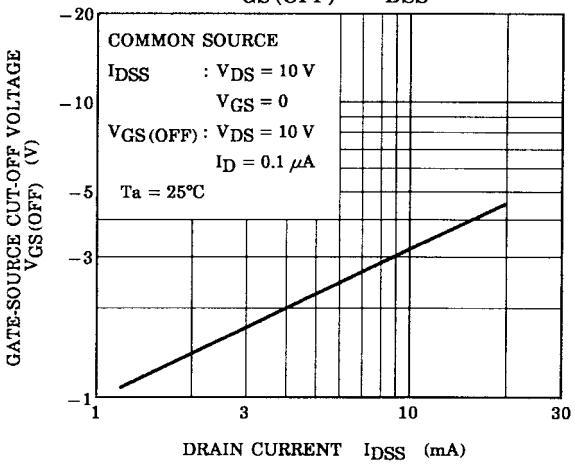
C_{rss} – V_{GD}



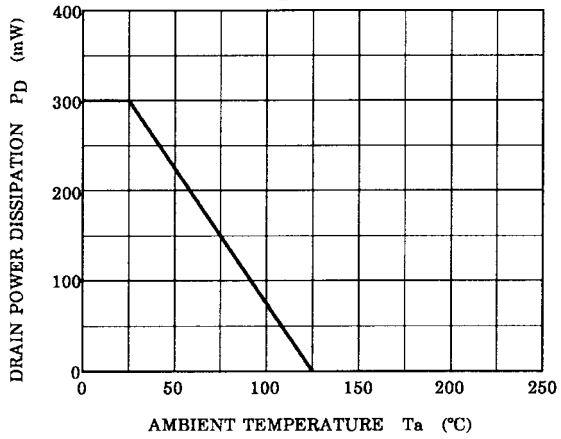
$|Y_{fs}|$ – I_{DSS}



$V_{GS\,(OFF)}$ – I_{DSS}



P_D – Ta



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000707EAA

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