

TOSHIBA Effect Transistor Silicon N Channel Junction Type

# 2SK366

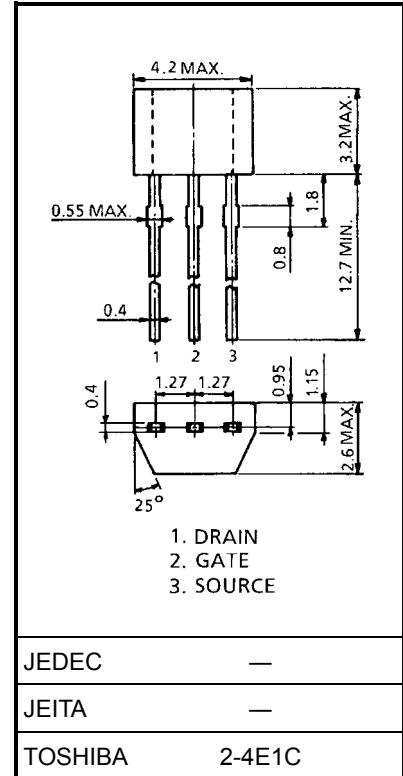
For Audio Amplifier, Analog-Switch, Constant Current and Impedance Converter Applications

Unit: mm

- High voltage:  $V_{GDS} = -40\text{ V}$
- High input impedance:  $I_{GSS} = -1.0\text{ nA (max)}$  ( $V_{GS} = -30\text{ V}$ )
- Low  $R_{DS(ON)}$ :  $R_{DS(ON)} = 50\ \Omega$  (typ.) ( $I_{DSS} = 5\text{ mA}$ )
- Small package
- Complementary to 2SJ107

### Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Characteristics	Symbol	Rating	Unit
Gate-drain voltage	$V_{GDS}$	-40	V
Gate current	$I_G$	10	mA
Drain power dissipation	$P_D$	200	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55~125	$^\circ\text{C}$



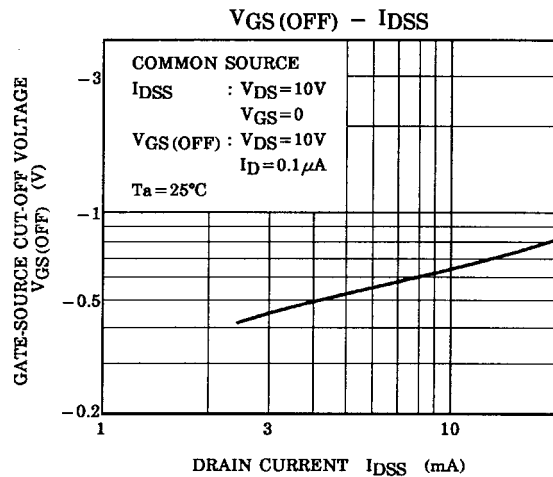
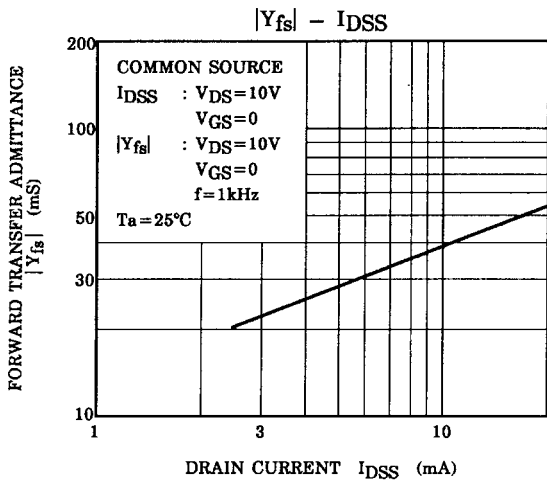
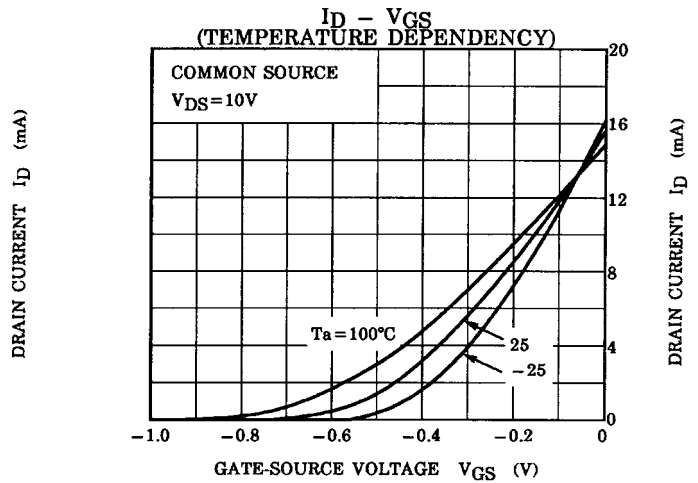
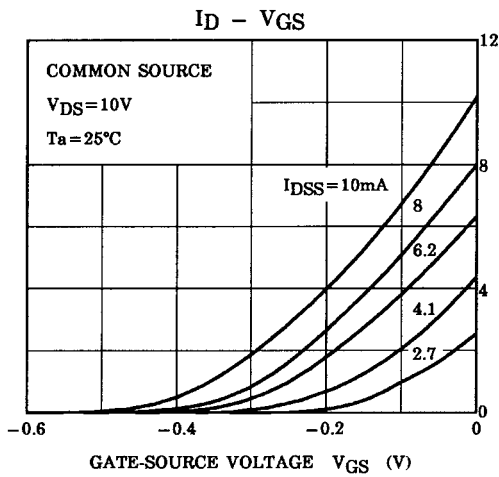
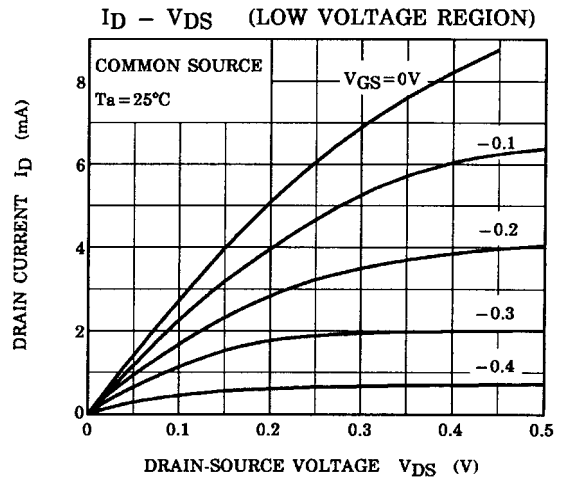
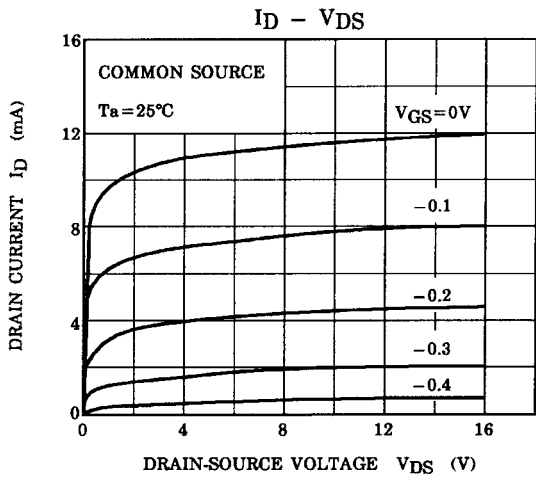
### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

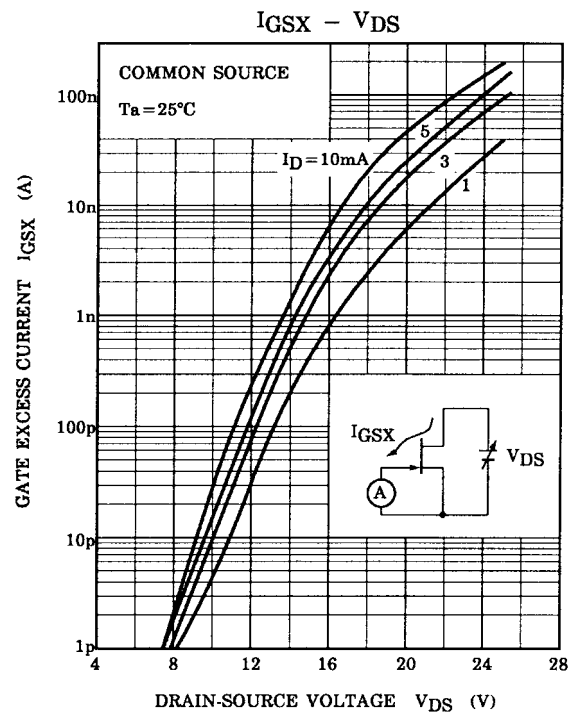
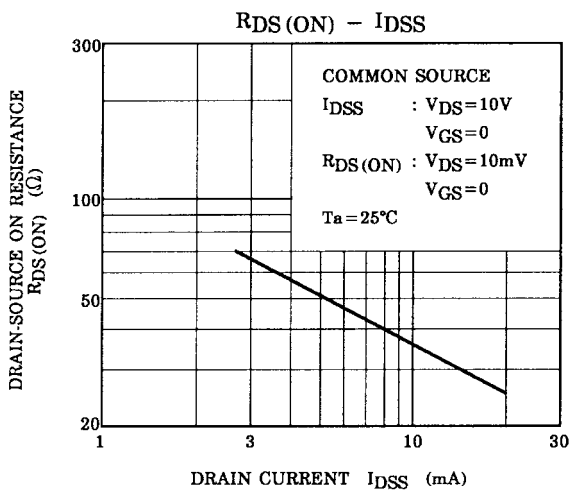
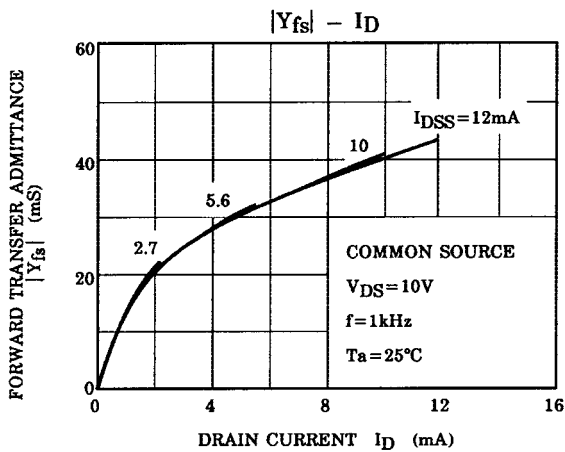
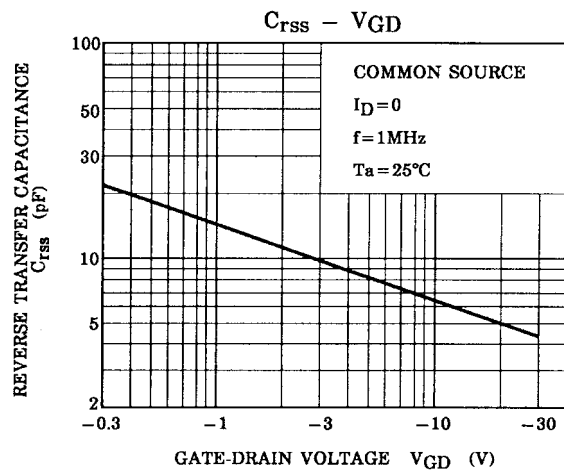
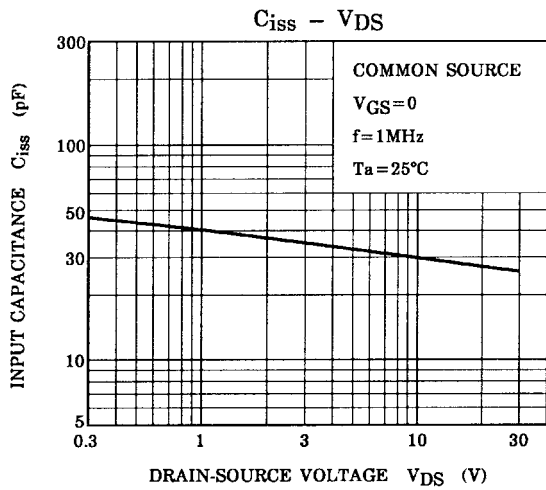
Weight: 0.13 g (typ.)

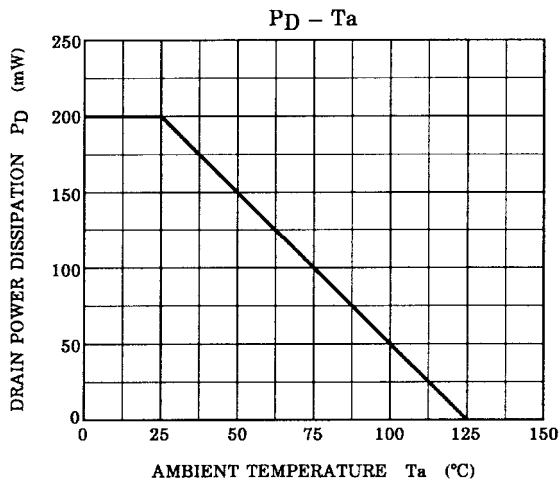
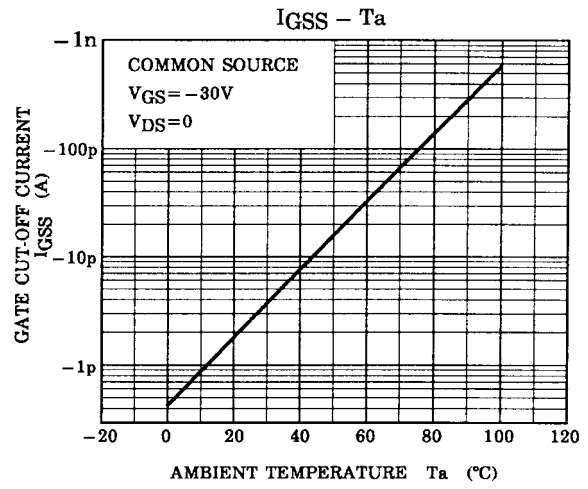
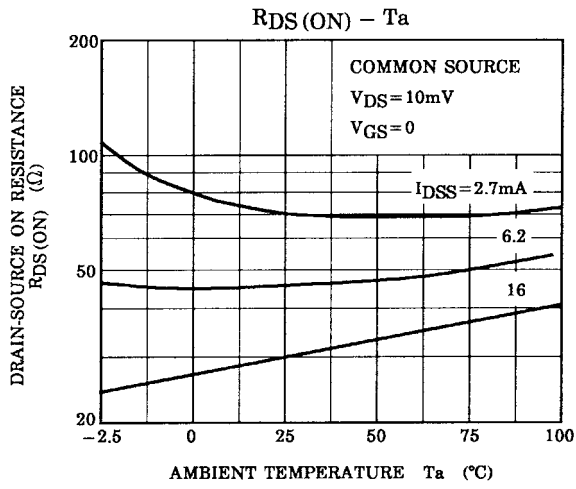
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Gate cut-off current	$I_{GSS}$	$V_{GS} = -30\text{ V}, V_{DS} = 0$	—	—	-1.0	nA
Gate-drain breakdown voltage	$V_{(BR)GDS}$	$V_{DS} = 0, I_C = -100\ \mu\text{A}$	-40	—	—	V
Drain current	$I_{DSS}$ (Note 1)	$V_{DS} = 10\text{ V}, V_{GS} = 0$	2.6	—	20	mA
Gate-source cut-off voltage	$V_{GS(OFF)}$	$V_{DS} = 10\text{ V}, I_D = 0.1\ \mu\text{A}$	-0.2	—	-1.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10\text{ V}, V_{GS} = 0, f = 1\text{ kHz}$ (Note 2)	12	28	—	mS
Input capacitance	$C_{iss}$	$V_{DS} = 10\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$	—	30	—	pF
Reverse transfer capacitance	$C_{rss}$	$V_{DG} = 10\text{ V}, I_D = 0, f = 1\text{ MHz}$	—	6	—	pF
Drain-source ON resistance	$R_{DS(ON)}$	$V_{DS} = 10\text{ mV}, V_{GS} = 0$ (Note 2)	—	50	—	$\Omega$

Note 1:  $I_{DSS}$  classification GR: 2.6~6.5 mA, BL: 6~12 mA, V: 10~20 mA

Note 2: Condition of the typical value  $I_{DSS} = 5\text{ mA}$







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