

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL JUNCTION TYPE

# 2SK372

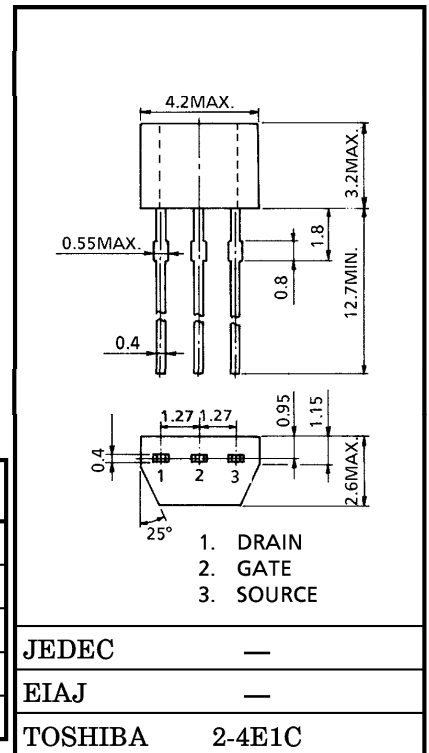
FOR AUDIO AMPLIFIER, ANALOG-SWITCH, CONSTANT CURRENT AND IMPEDANCE CONVERTER APPLICATIONS

Unit in mm

- High Breakdown Voltage :  $V_{GDS} = -40V$
- High Input Impedance :  $I_{GSS} = -1.0nA$  (Max.) ( $V_{GS} = -30V$ )
- Low  $R_{DS(ON)}$  :  $R_{DS(ON)} = 20\Omega$  (Typ.) ( $I_{DSS} = 15mA$ )
- Small Package

**MAXIMUM RATINGS (Ta = 25°C)**

CHARACTERISTIC	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	°C
Storage Temperature Range	$T_{stg}$	-55~125	°C



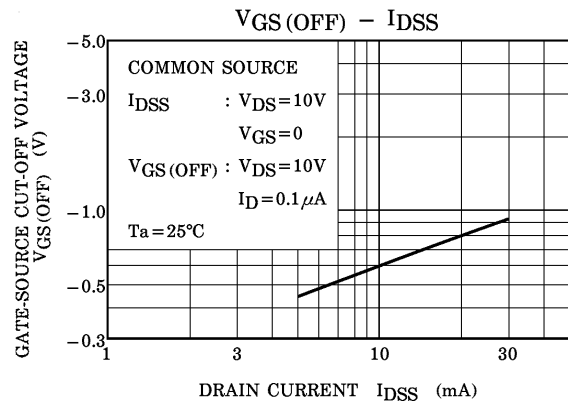
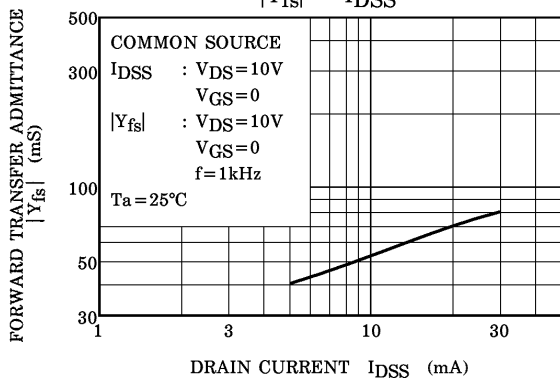
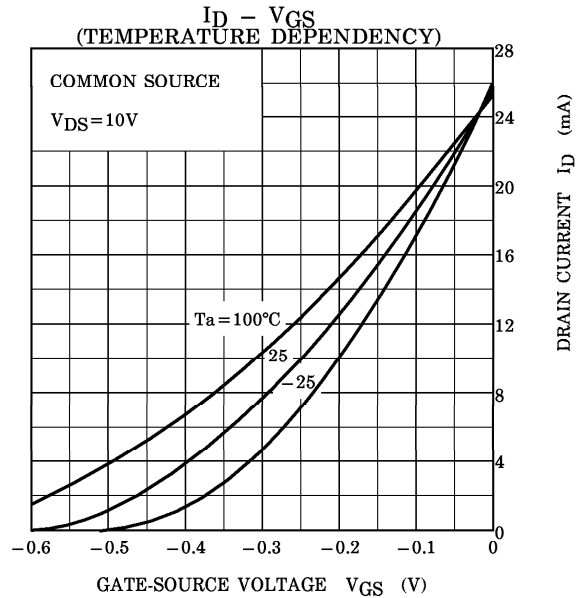
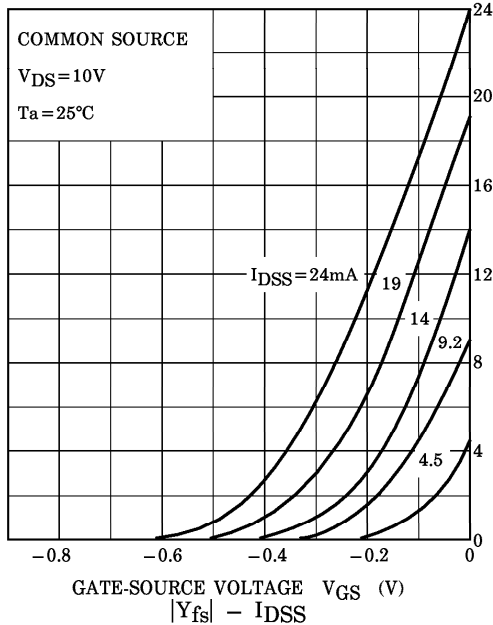
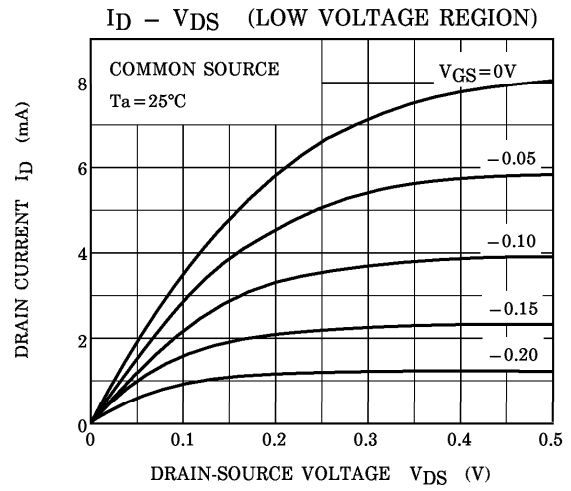
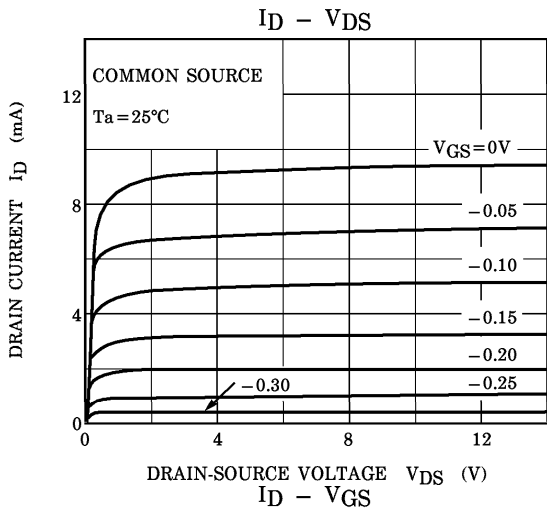
Weight : 0.13g

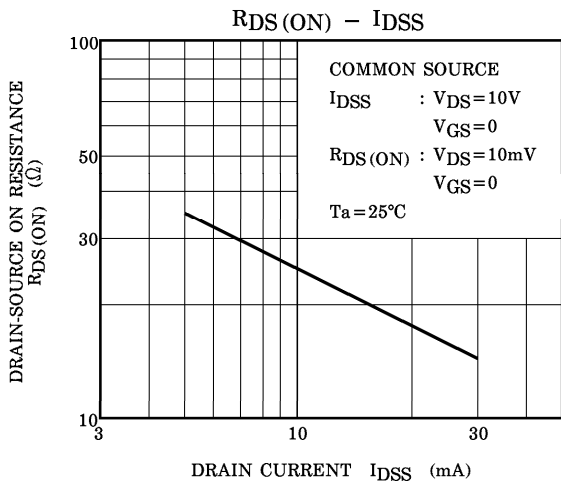
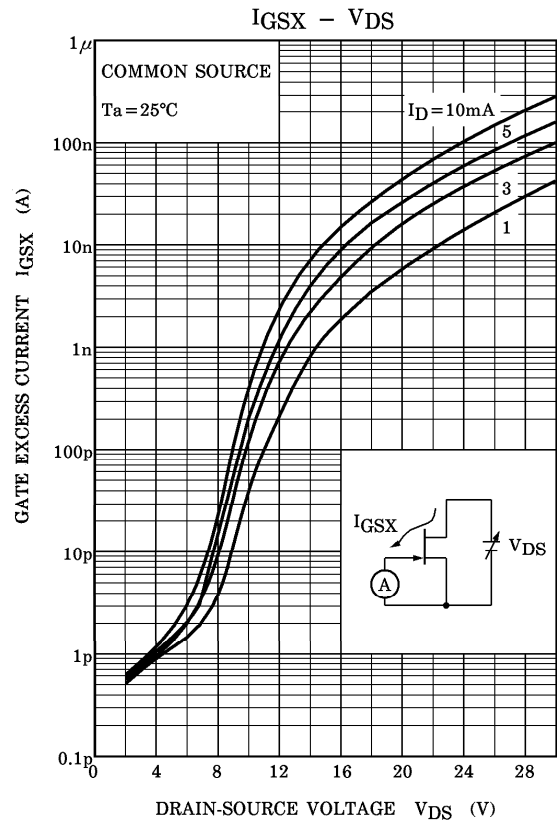
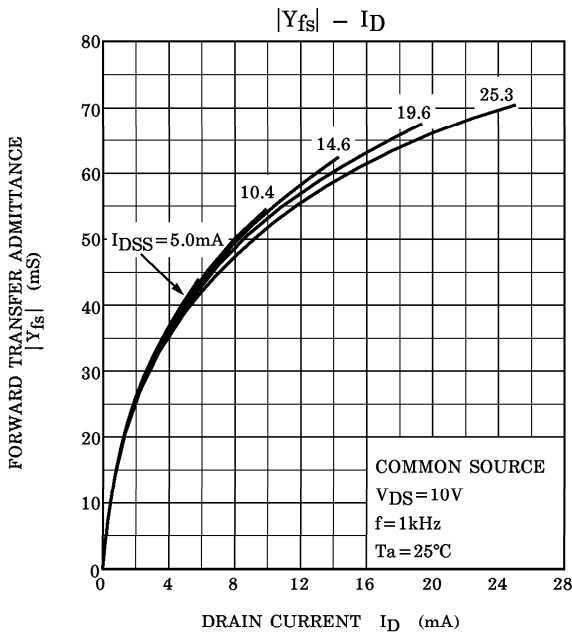
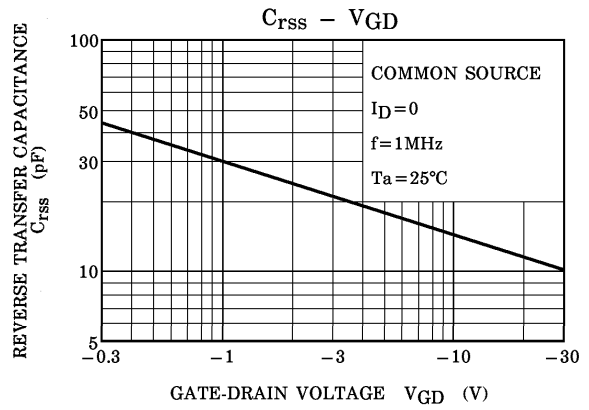
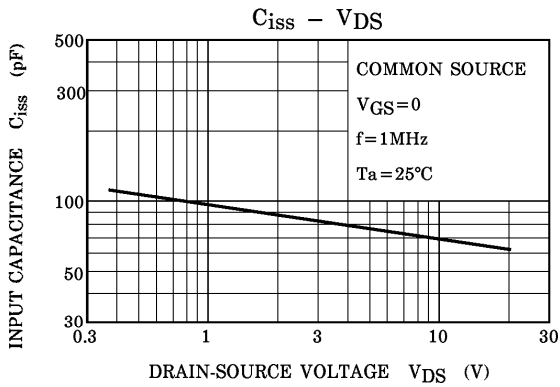
**ELECTRICAL CHARACTERISTICS (Ta = 25°C)**

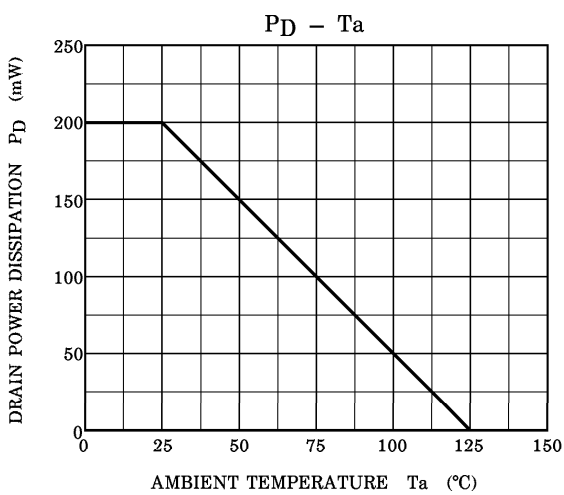
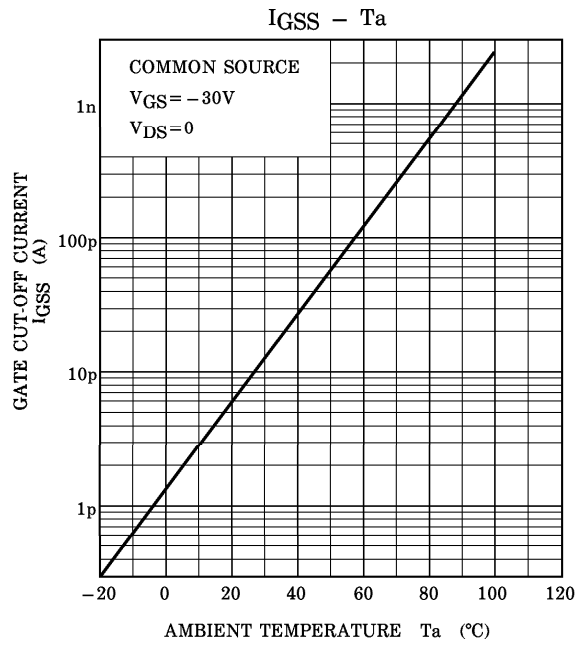
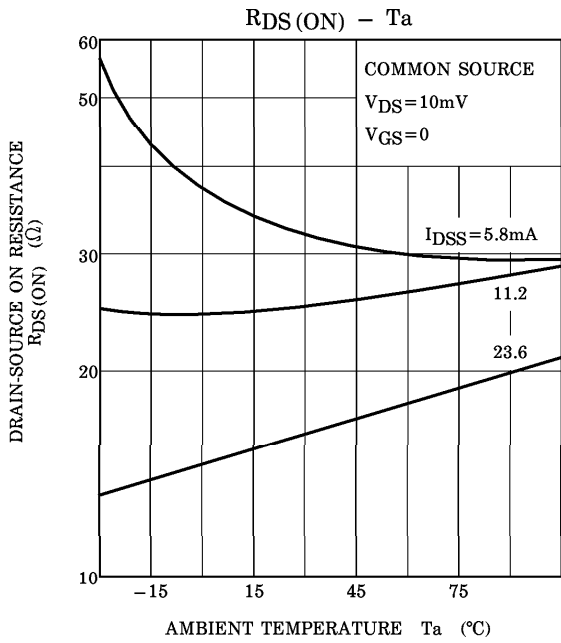
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Cut-off Current	$I_{GSS}$	$V_{GS} = -30V, V_{DS} = 0$	—	—	-1.0	nA
Gate-Drain Breakdown Voltage	$V_{(BR)GDS}$	$V_{DS} = 0, I_G = -100\mu A$	-40	—	—	V
Drain Current	$I_{DSS}$ (Note 1)	$V_{DS} = 10V, V_{GS} = 0$	5.0	—	30	mA
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$	$V_{DS} = 10V, I_D = 0.1\mu A$	-0.3	—	-1.2	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10V, V_{GS} = 0, f = 1kHz$ (Note 2)	25	60	—	mS
Input Capacitance	$C_{iss}$	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$	—	75	—	pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DG} = 10V, I_D = 0, f = 1MHz$	—	15	—	pF
Drain-Source ON Resistance	$R_{DS(ON)}$	$V_{DS} = 10mV, V_{GS} = 0$ (Note 2)	—	20	—	$\Omega$

Note 1 :  $I_{DSS}$  Classification GR : 5.0~10.0mA, BL : 8.0~16.0mA, Y : 14.0~30.0mA

Note 2 : Concition of the typical Value  $I_{DSS} = 15mA$







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