

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL JUNCTION TYPE

# 2SK710

HIGH FREQUENCY AMPLIFIER APPLICATIONS

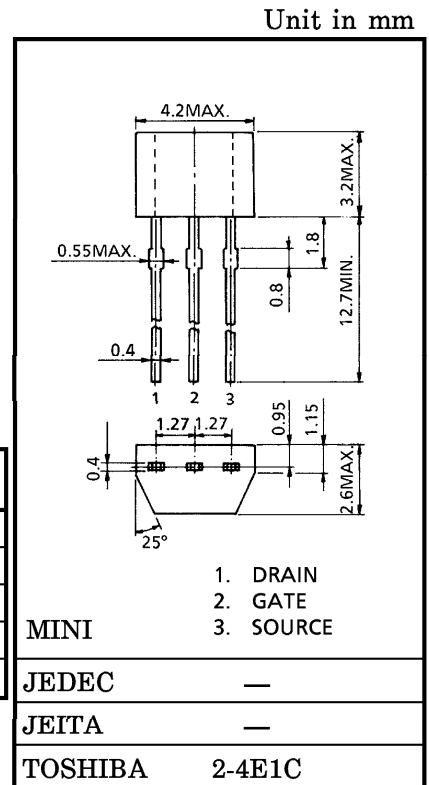
AM HIGH FREQUENCY AMPLIFIER APPLICATIONS

AUDIO FREQUENCY AMPLIFIER APPLICATIONS

- High  $|Y_{fs}|$  :  $|Y_{fs}| = 25 \text{ mS (Typ.)}$
- Low  $C_{iss}$  :  $C_{iss} = 7.5 \text{ pF (Typ.)}$
- Low Noise

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	V <sub>GDS</sub>	-20	V
Gate Current	I <sub>G</sub>	10	mA
Drain Power Dissipation	P <sub>D</sub>	200	mW
Junction Temperature	T <sub>j</sub>	125	°C
Storage Temperature Range	T <sub>stg</sub>	-55~125	°C

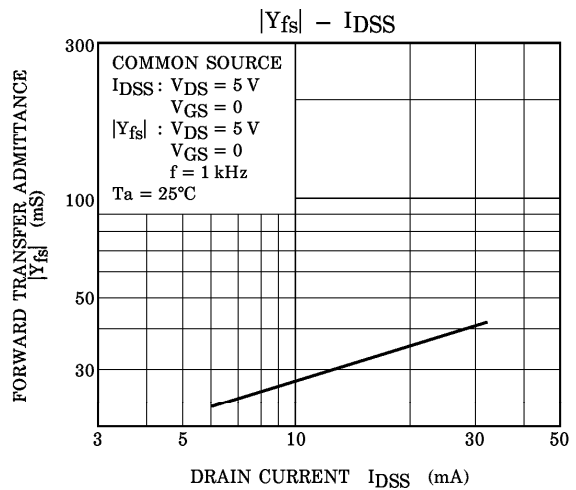
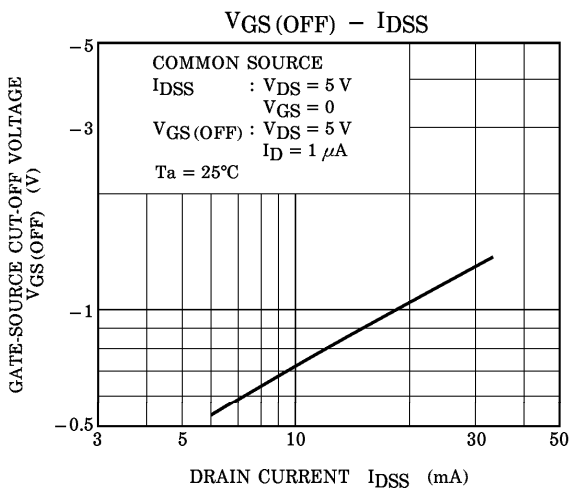
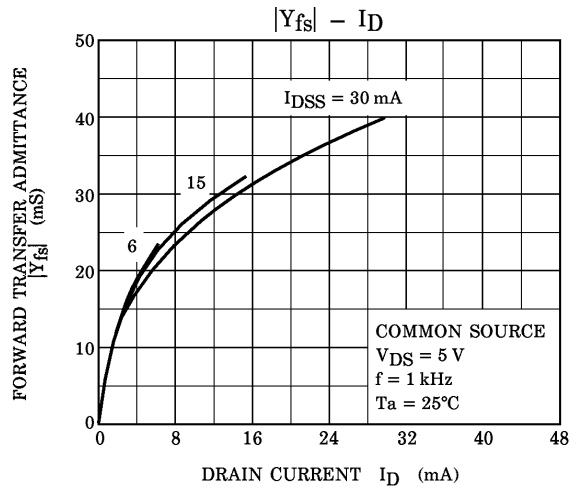
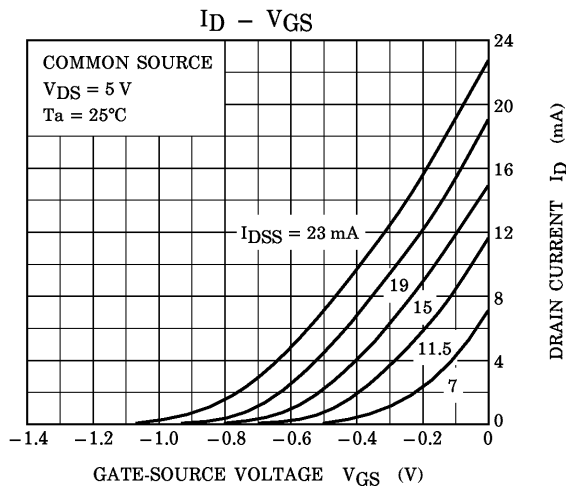
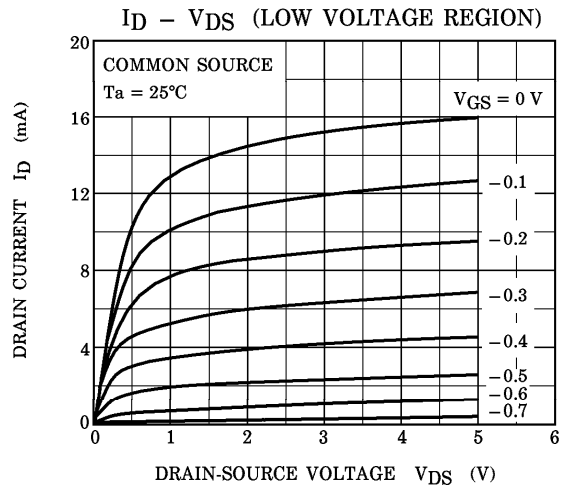
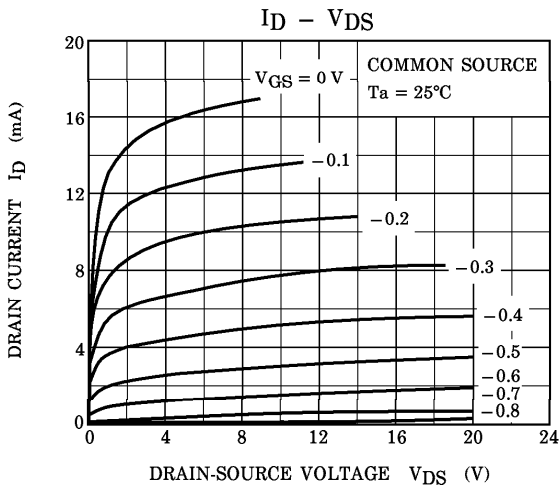


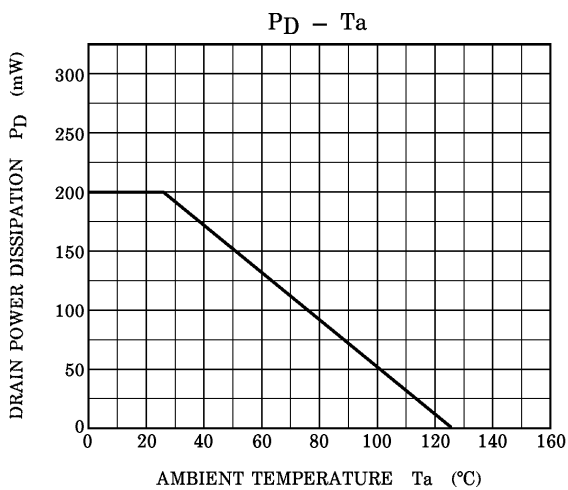
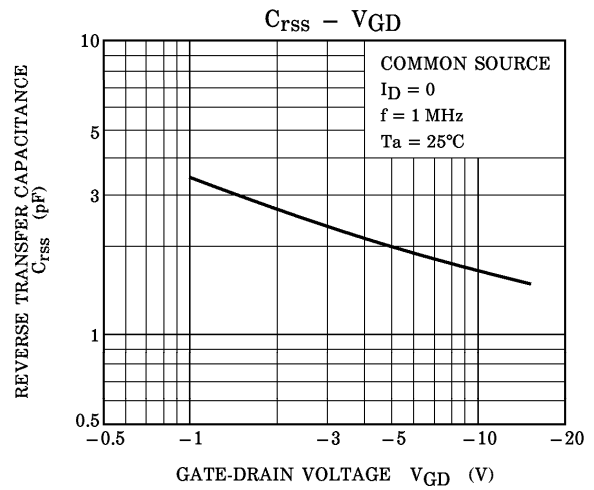
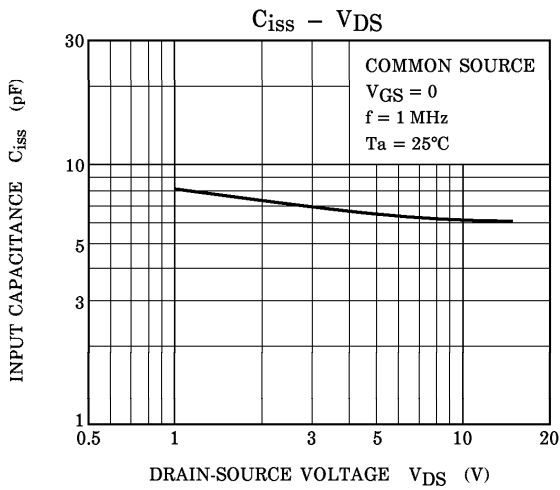
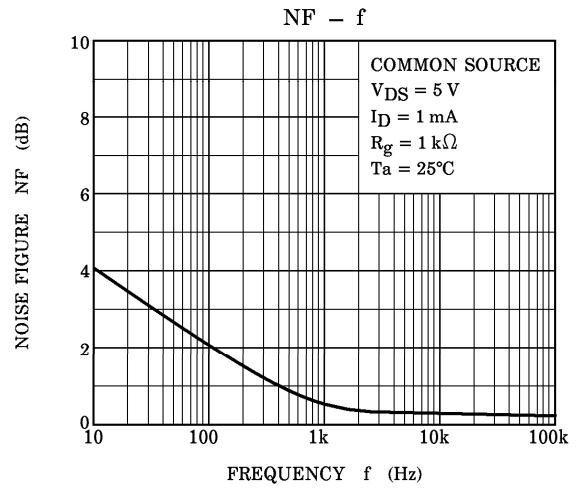
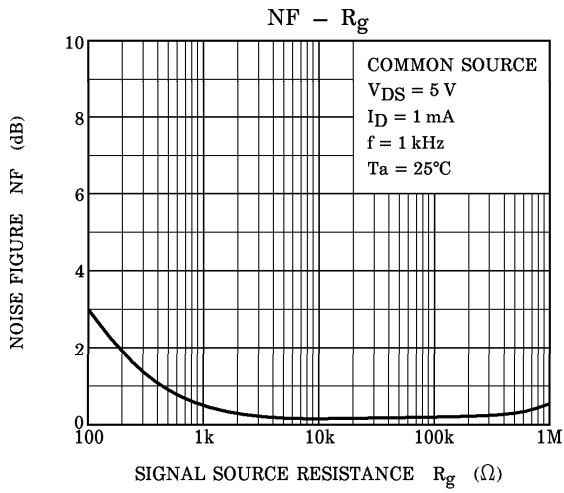
Weight : 0.13 g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> = -15 V, V <sub>DS</sub> = 0	—	—	-1.0	nA
Gate-Drain Breakdown Voltage	V <sub>(BR)GDS</sub>	V <sub>DS</sub> = 0, I <sub>G</sub> = -100 μA	-20	—	—	V
Drain Current	I <sub>DSS</sub> (Note)	V <sub>DS</sub> = 5 V, V <sub>GS</sub> = 0	6	—	32	mA
Gate-Source Cut-off Voltage	V <sub>GS(OFF)</sub>	V <sub>DS</sub> = 5 V, I <sub>D</sub> = 1 μA	—	—	-2.5	V
Forward Transfer Admittance	Y <sub>fs</sub>	V <sub>DS</sub> = 5 V, V <sub>GS</sub> = 0, f = 1 kHz	15	25	—	mS
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 5 V, V <sub>GS</sub> = 0, f = 1 MHz	—	7.5	10	pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DG</sub> = 5 V, I <sub>D</sub> = 0, f = 1 MHz	—	2	3	pF
Noise Figure	NF	V <sub>DS</sub> = 5 V, I <sub>D</sub> = 1 mA R <sub>g</sub> = 1 kΩ, f = 1 kHz	—	0.5	3	dB

(Note) : I<sub>DSS</sub> Classification GR : 6~12 mA, BL : 10~20 mA, V : 16~32 mA





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