

2SK711

High Frequency Amplifier Applications

AM High Frequency Amplifier Applications

Audio Frequency Amplifier Applications

Unit: mm

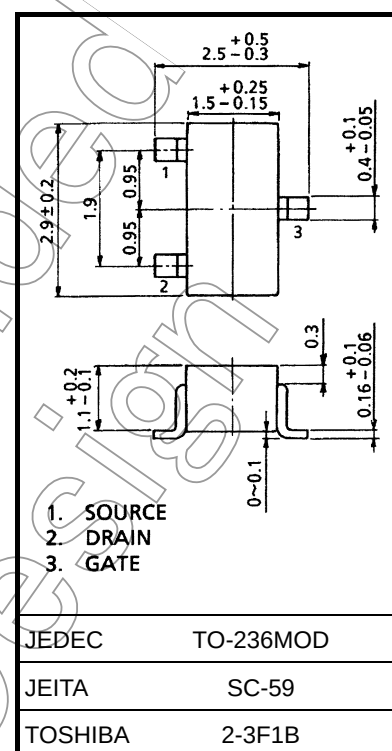
- High $|Y_{fs}| : |Y_{fs}| = 25 \text{ mS (typ.)}$
- Low $C_{iss} : C_{iss} = 7.5 \text{ pF (typ.)}$

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

Characteristics	Symbol	Rating	Unit
Gate-drain voltage	V_{GDS}	-20	V
Gate current	I_G	10	mA
Drain power dissipation	P_D	150	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~125	$^\circ\text{C}$

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).



Weight: 0.012 g (typ.)

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

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Gate leakage current	I_{GSS}	$V_{GS} = -15 \text{ V}, V_{DS} = 0 \text{ V}$	—	—	-1.0	nA
Gate-drain breakdown voltage	$V_{(BR)GDS}$	$V_{DS} = 0 \text{ V}, I_G = -100 \mu\text{A}$	-20	—	—	V
Drain current	I_{DSS} (Note)	$V_{DS} = 5 \text{ V}, V_{GS} = 0 \text{ V}$	6	—	32	mA
Gate-source cut-off voltage	$V_{GS(OFF)}$	$V_{DS} = 5 \text{ V}, I_D = 1 \mu\text{A}$	—	—	-2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 5 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ kHz}$	15	25	—	mS
Input capacitance	C_{iss}	$V_{DS} = 5 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ MHz}$	—	7.5	10	pF
Reverse transfer capacitance	C_{rss}	$V_{DS} = 5 \text{ V}, I_D = 0 \text{ mA}, f = 1 \text{ MHz}$	—	2	3	pF

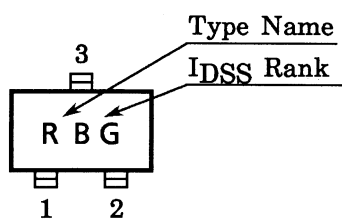
Note: I_{DSS} classification

GR: 6~12 mA, BL: 10~20 mA, V: 16~32 mA

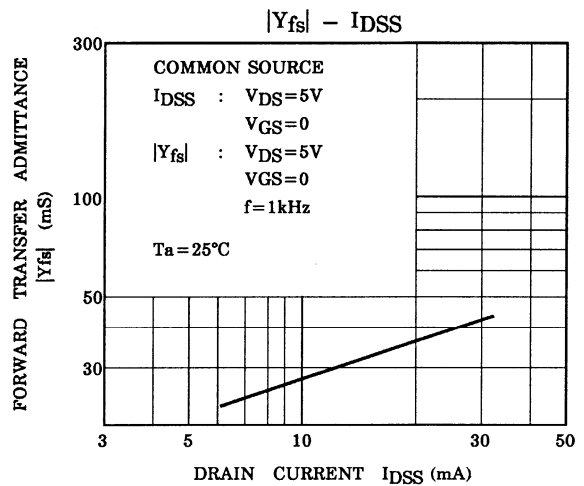
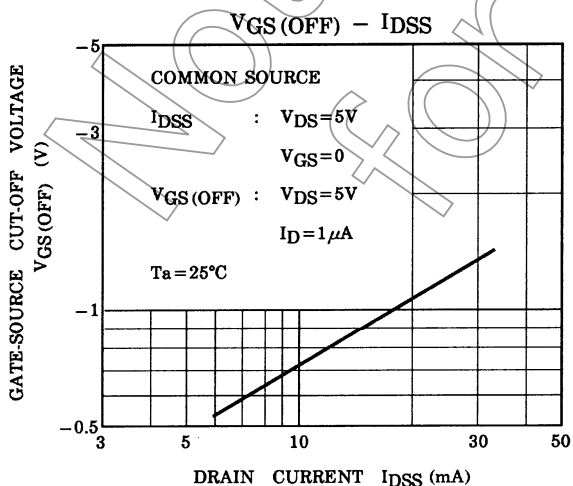
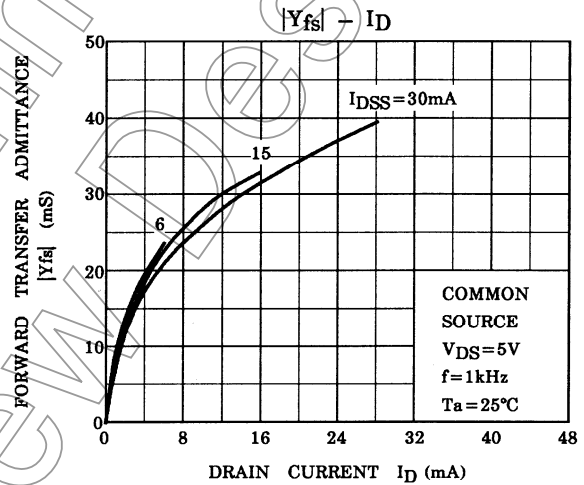
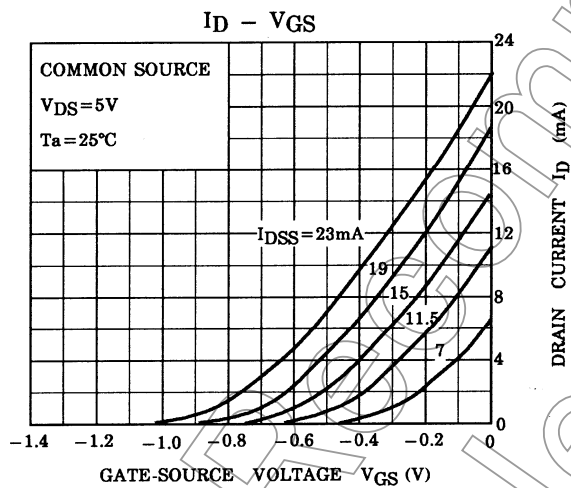
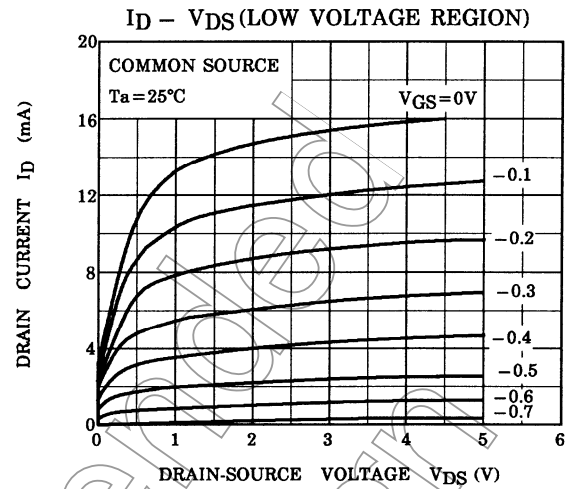
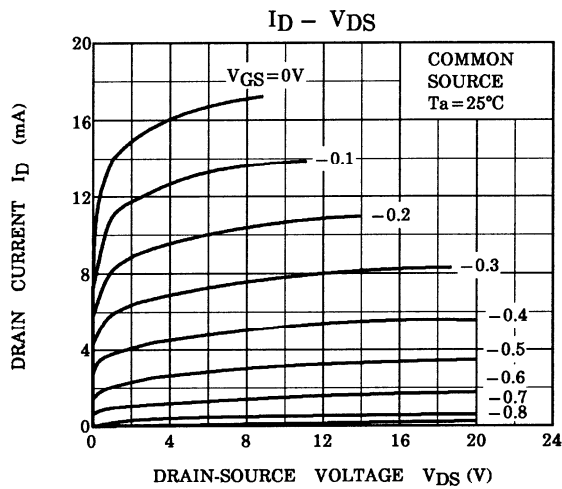
(G) (L) (V)

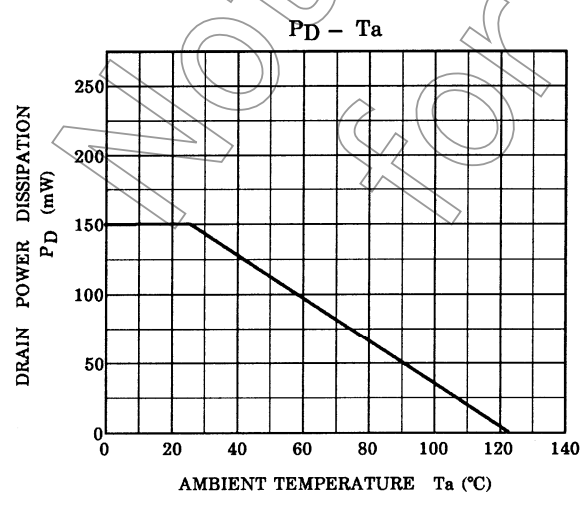
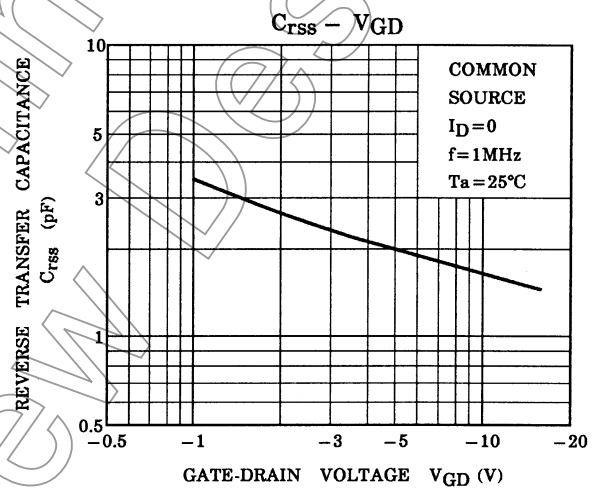
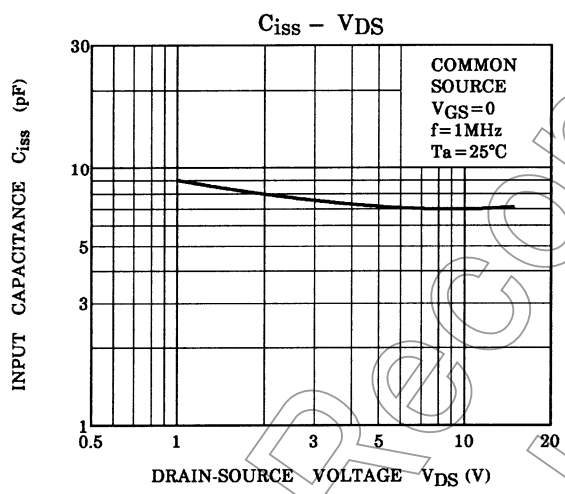
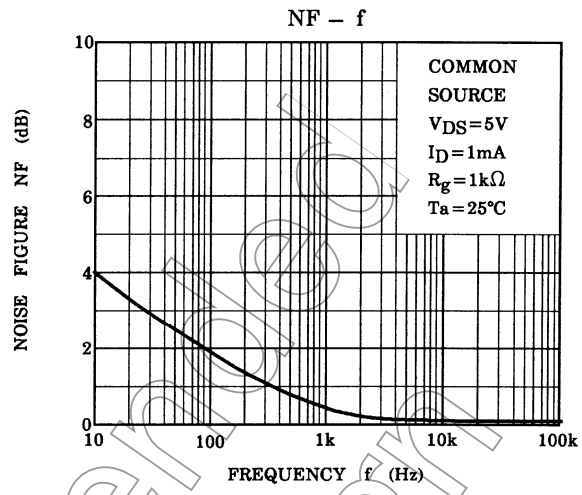
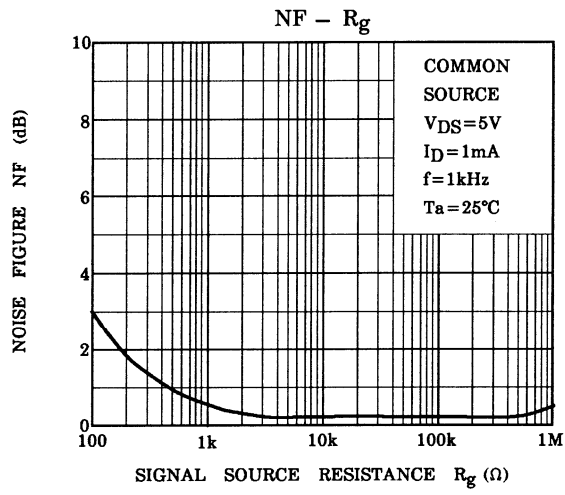
() I_{DSS} rank marking

Marking



Not Recommended
for New Design





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