

TOSHIBA Field Effect Transistor Silicon N Channel Junction Type

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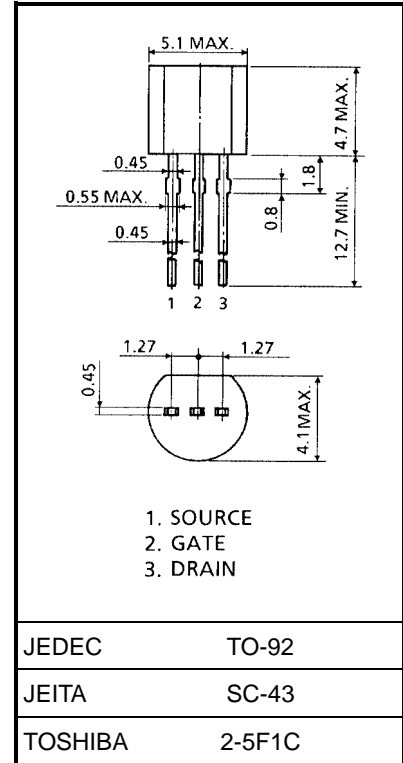
For Audio, High Voltage Amplifier and Constant Current Applications

Unit: mm

- High breakdown voltage: $V_{GDS} = -100\text{ V (min)}$
- High input impedance: $I_{GSS} = -1.0\text{ nA (max)}$ ($V_{GS} = -80\text{ V}$)

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

Characteristics	Symbol	Rating	Unit
Gate-drain voltage	V_{GDS}	-100	V
Gate current	I_G	10	mA
Drain power dissipation	P_D	400	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~125	$^\circ\text{C}$

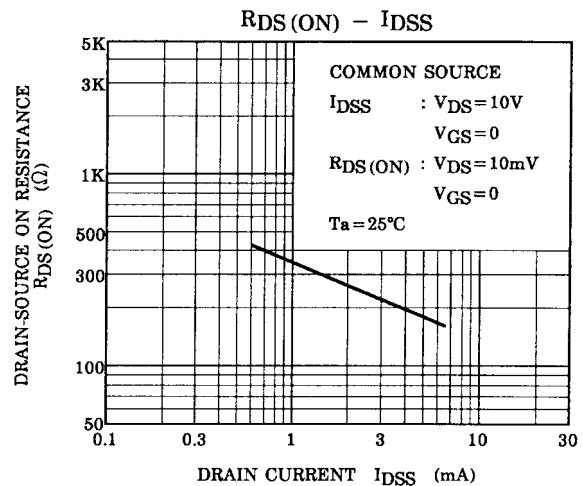
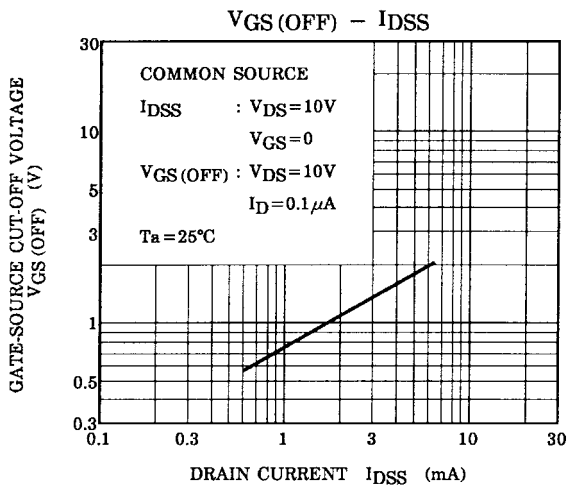
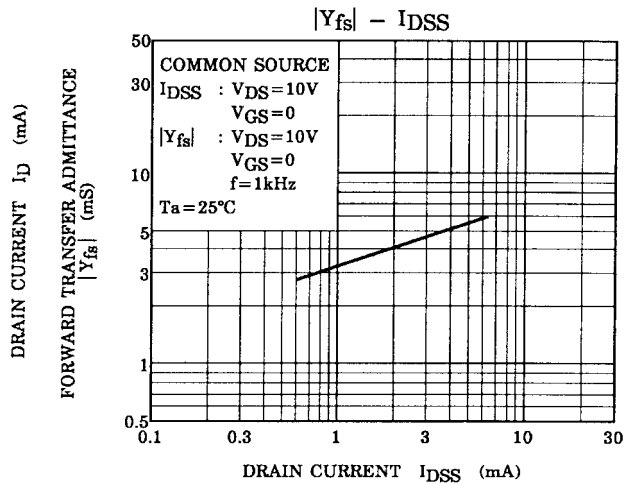
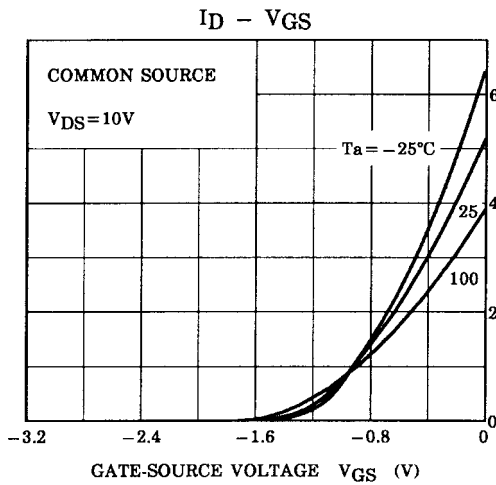
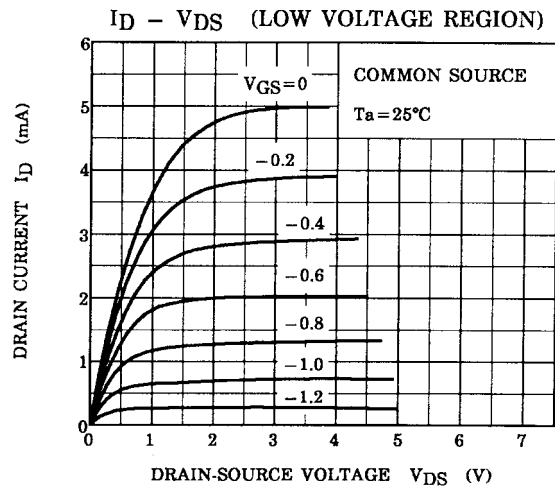
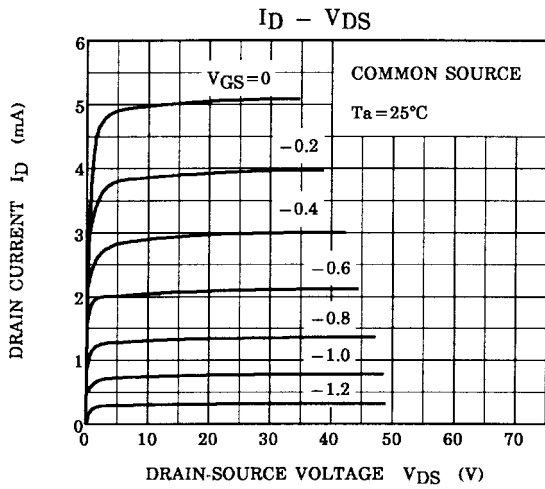


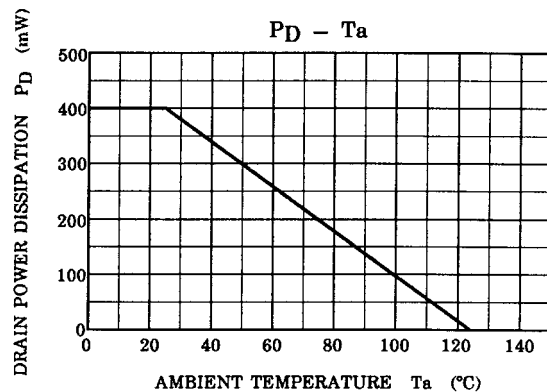
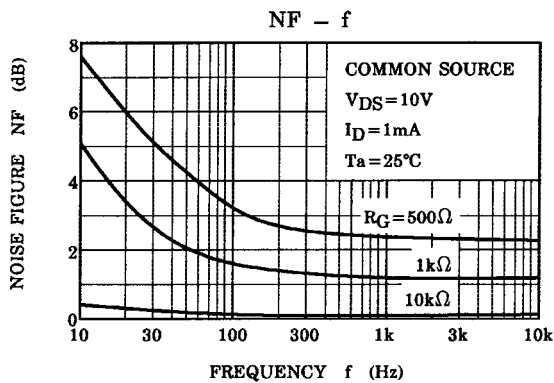
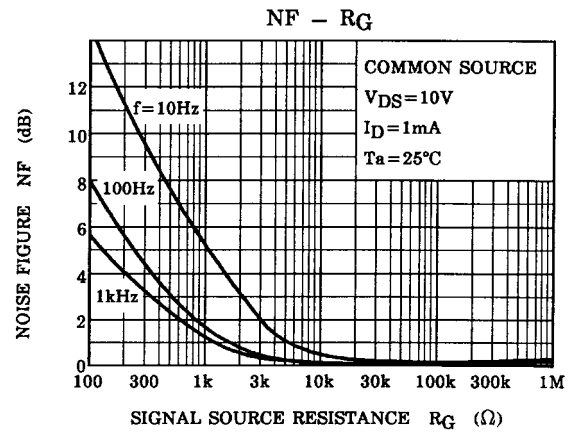
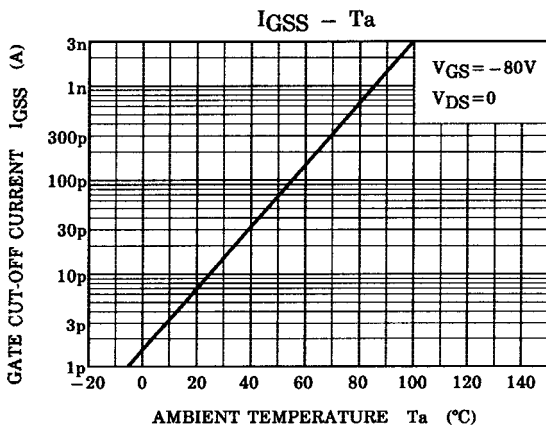
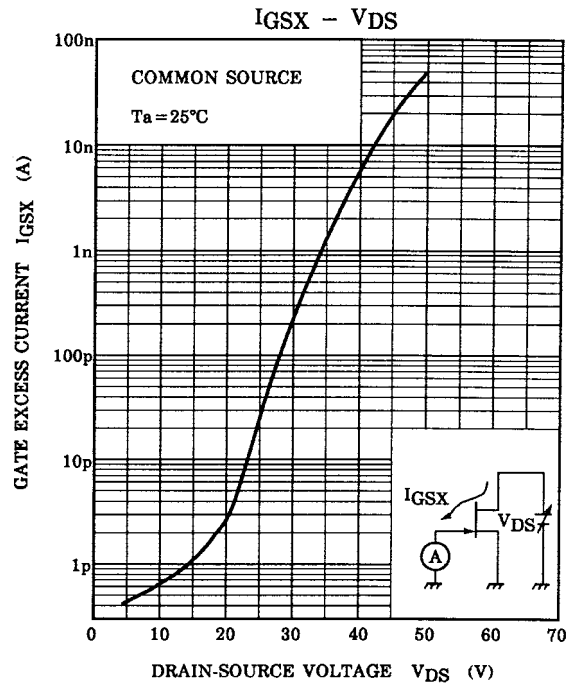
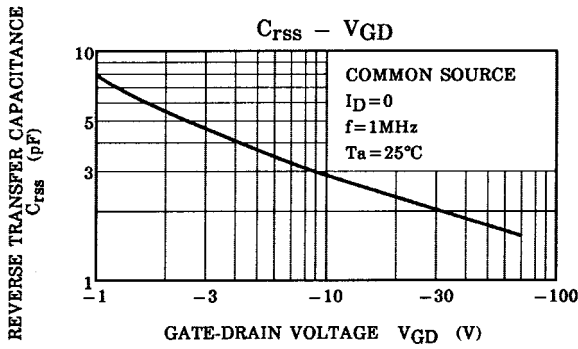
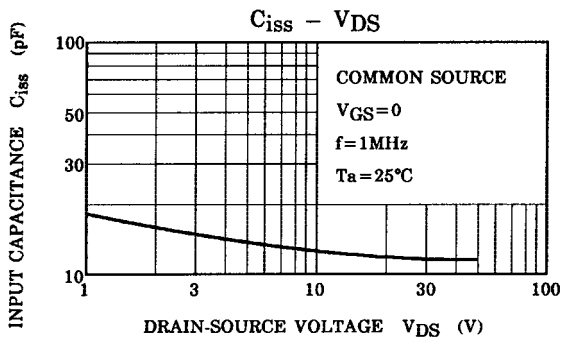
Weight: 0.21 g (typ.)

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

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Gate cut-off current	I_{GSS}	$V_{GS} = -80\text{ V}, V_{DS} = 0$	—	—	-1.0	nA
Gate-drain breakdown voltage	$V_{(BR)GDS}$	$V_{DS} = 0, I_G = -100\text{ }\mu\text{A}$	-100	—	—	V
Drain current	I_{DSS} (Note)	$V_{DS} = 10\text{ V}, V_{GS} = 0$	0.6	—	6.5	mA
Gate-source cut-off voltage	$V_{GS(OFF)}$	$V_{DS} = 10\text{ V}, I_D = 0.1\text{ }\mu\text{A}$	-0.4	—	-3.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10\text{ V}, V_{GS} = 0, f = 1\text{ kHz}$	1.5	4.6	—	mS
Input capacitance	C_{iss}	$V_{DS} = 10\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$	—	13	—	pF
Reverse transfer capacitance	C_{rss}	$V_{DG} = 10\text{ V}, I_D = 0, f = 1\text{ MHz}$	—	3	—	pF
Noise figure	NF	$V_{DS} = 10\text{ V}, V_{GS} = 0, R_G = 100\text{ k}\Omega, f = 100\text{ Hz}$	—	0.5	—	dB

Note: I_{DSS} classification O: 0.6~1.4 mA, Y: 1.2~3.0 mA, GR: 2.6~6.5 mA





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