

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL JUNCTION TYPE

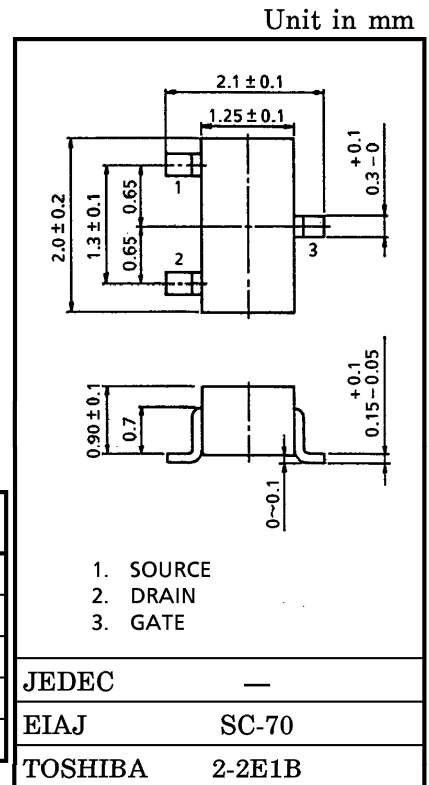
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AUDIO FREQUENCY AMPLIFIER APPLICATIONS
 ANALOG SWITCH APPLICATIONS
 CONSTANT CURRENT APPLICATIONS
 IMPEDANCE CONVERTER APPLICATIONS

- High Breakdown Voltage : $V_{GDS} = 50V$ (Min.)
- High Input Impedance : $I_{GSS} = 1.0nA$ (Max.) ($V_{GS} = 30V$)
- Low $R_{DS(ON)}$: $R_{DS(ON)} = 270\Omega$ (Typ.)
 $(I_{DSS} = -5mA)$
- Small Package

MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	V_{GDS}	50	V
Gate Current	I_G	-10	mA
Drain Power Dissipation	P_D	100	mW
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_{stg}	-55~125	$^\circ C$



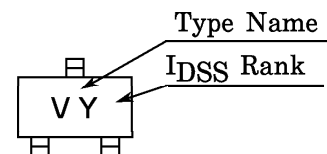
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

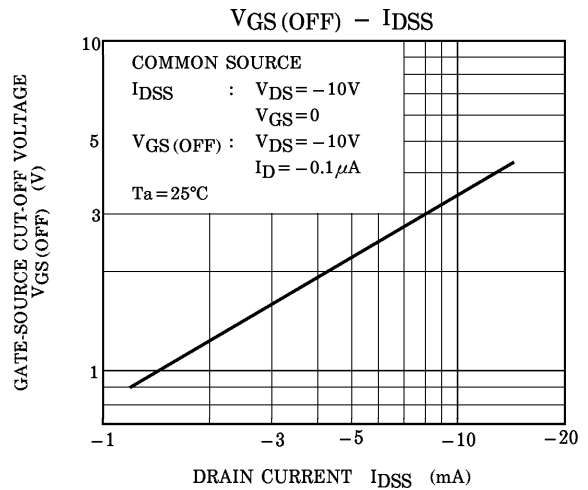
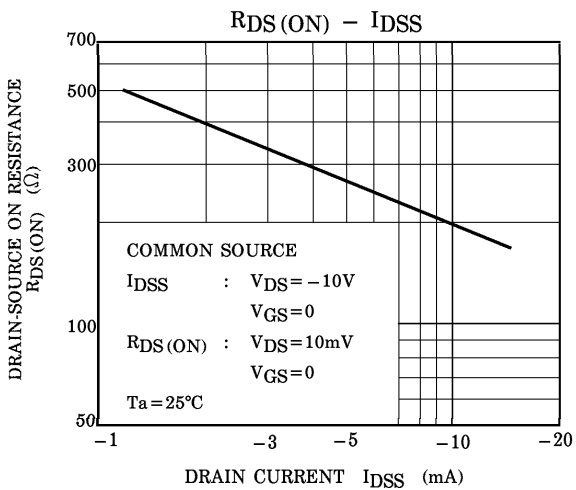
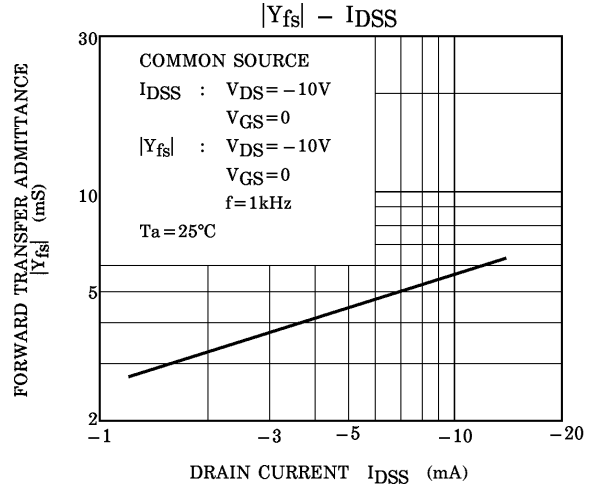
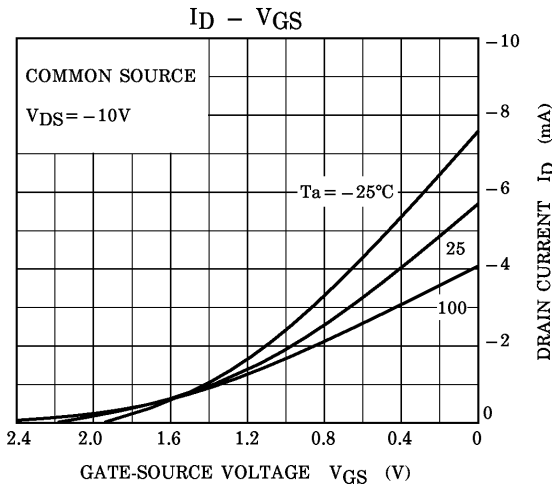
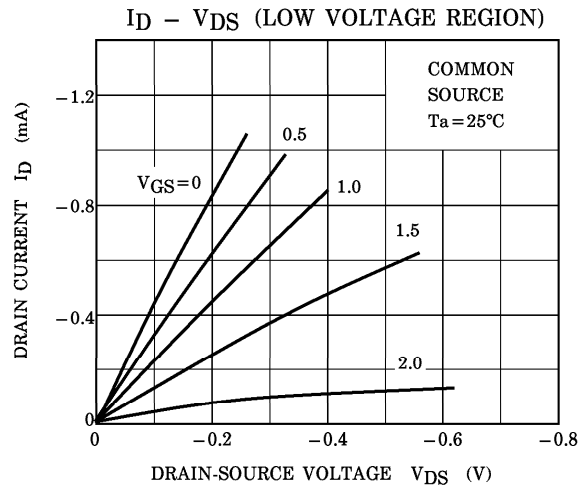
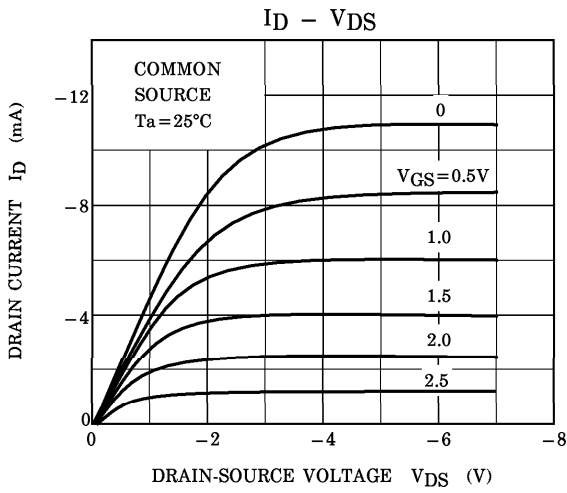
Weight : 0.006g

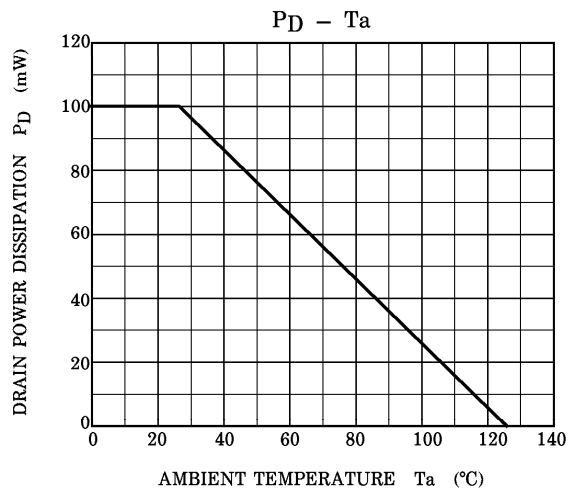
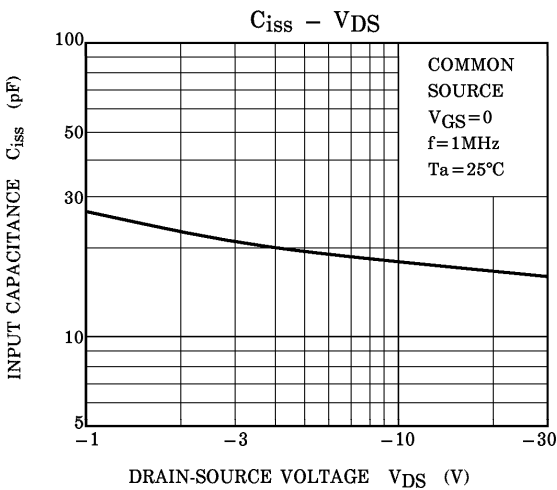
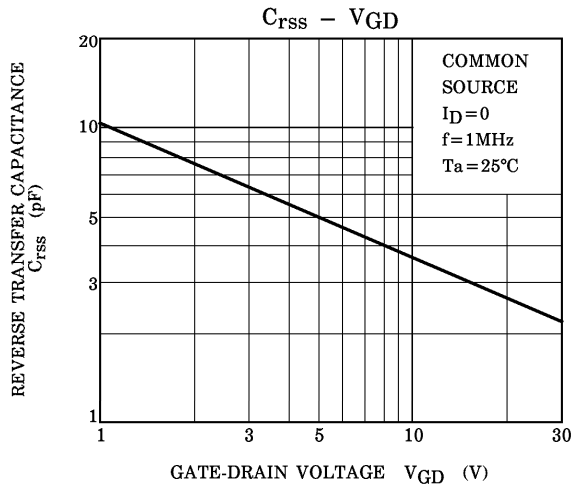
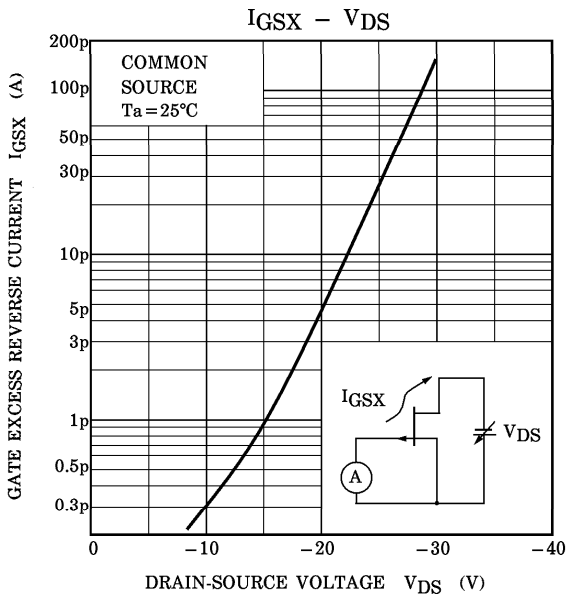
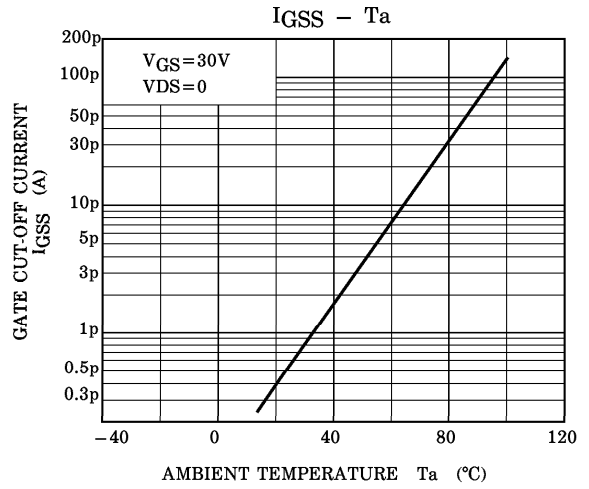
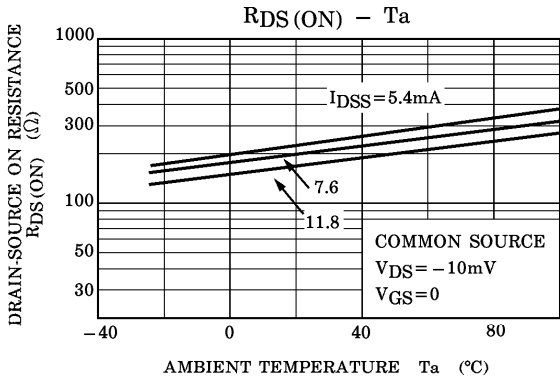
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Cut-off Current	I_{GSS}	$V_{GS} = 30V, V_{DS} = 0$	—	—	1.0	nA
Gate-Drain Breakdown Voltage	$V_{(BR)GDS}$	$V_{DS} = 0, I_G = 100\mu A$	50	—	—	V
Drain Current	I_{DSS} (Note)	$V_{DS} = -10V, V_{GS} = 0$	-1.2	—	-14	mA
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$	$V_{DS} = -10V, I_D = -0.1\mu A$	0.3	—	6.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10V, V_{GS} = 0, f = 1kHz$	1.0	4.0	—	mS
Drain-Source On Resistance	$R_{DS(ON)}$	$V_{DS} = -10mV, V_{GS} = 0$ $I_{DSS} = -5mA$	—	270	—	Ω
Input Capacitance	C_{iss}	$V_{DS} = -10V, V_{GS} = 0, f = 1MHz$	—	18	—	pF
Reverse Transfer Capacitance	C_{rss}	$V_{DG} = -10V, I_D = 0, f = 1MHz$	—	3.6	—	pF

Note : I_{DSS} Classification
 Y : -1.2~-3.0mA, GR(G) : -2.6~-6.5mA
 BL(L) : -6~-14mA

Marking







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