

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL MOS TYPE

2SJ313

AUDIO FREQUENCY POWER AMPLIFIER APPLICATION

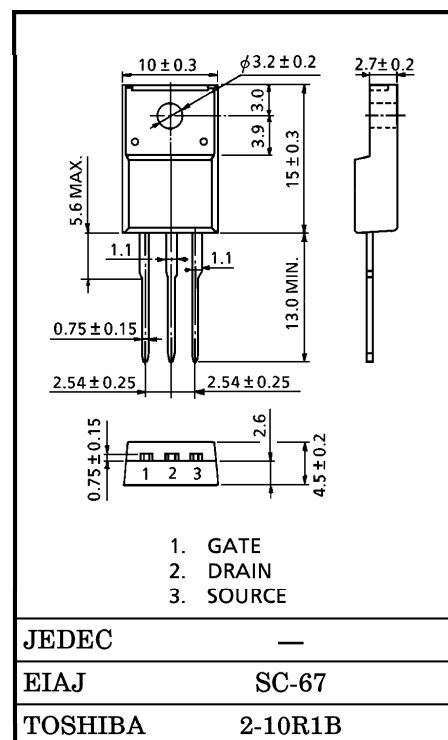
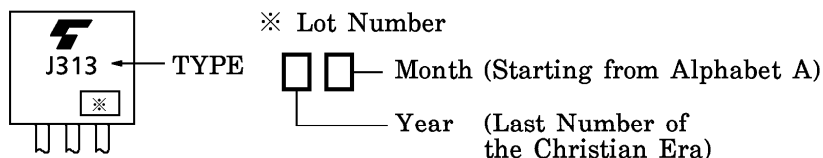
Unit in mm

- High Breakdown Voltage : $V_{DSS} = -180V$
- High Forward Transfer Admittance : $|Y_{fs}| = 0.7S$ (Typ.)
- Complementary to 2SK2013

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DSS}	-180	V
Gate-Source Voltage	V_{GSS}	± 20	V
Drain Current	I_D	-1	A
Power Dissipation ($T_c = 25^\circ C$)	P_D	25	W
Channel Temperature	T_{ch}	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

MARKING

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

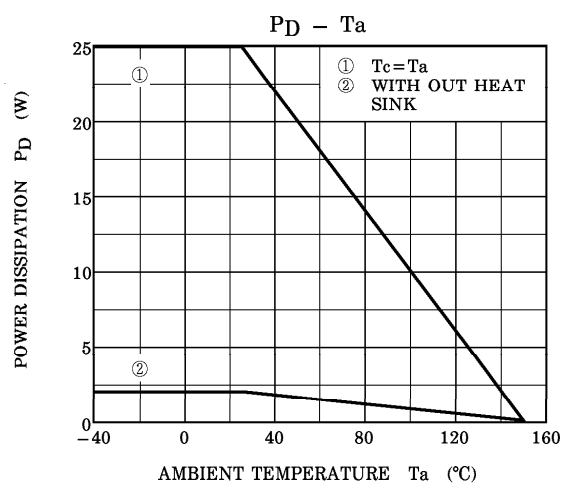
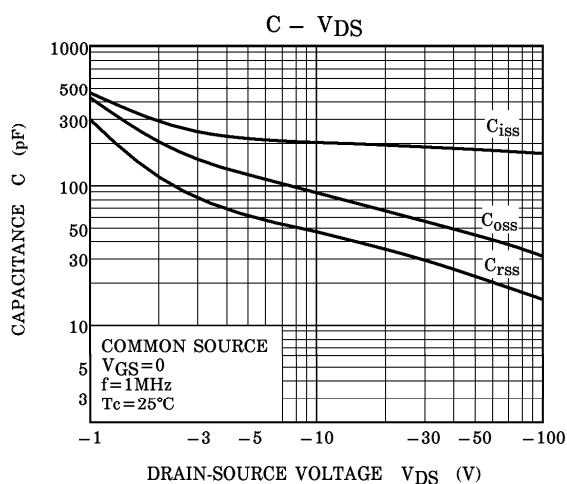
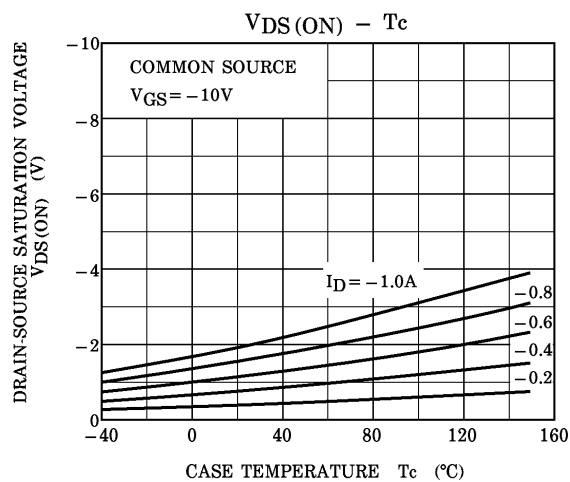
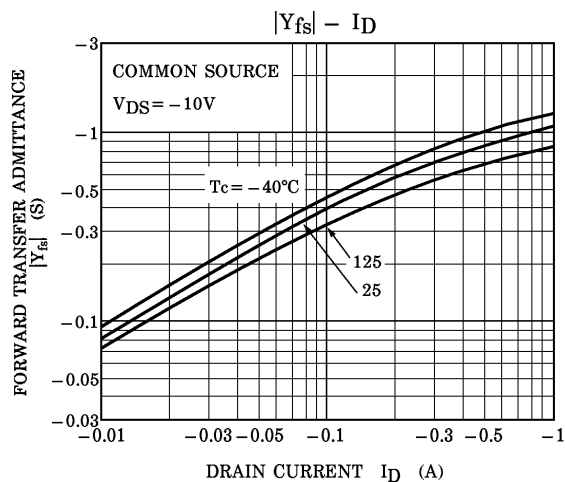
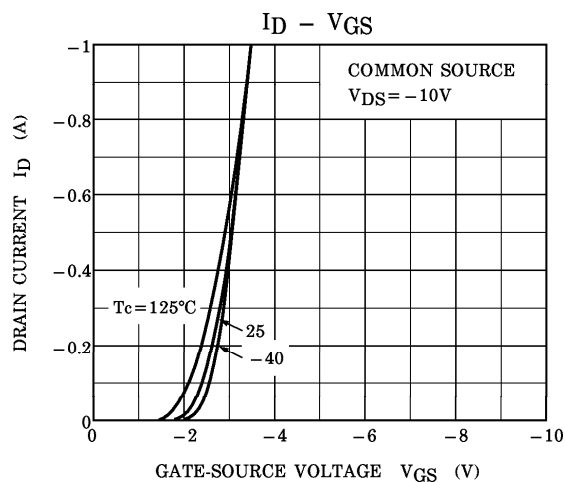
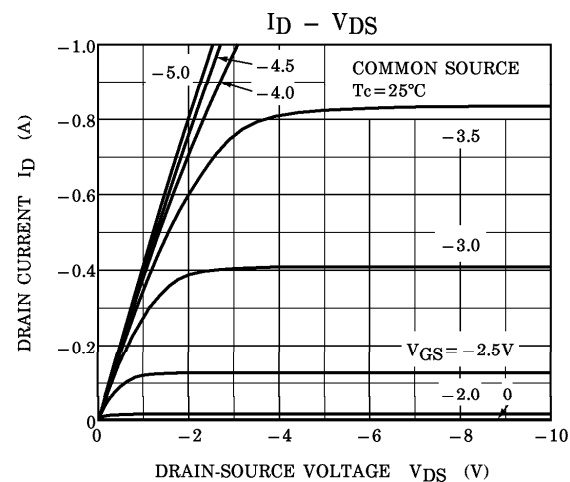
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	$V_{DS} = 0, V_{GS} = \pm 20V$	—	—	± 100	nA
Drain-Source Breakdown Voltage	$V_{(BR) DSS}$	$I_D = -10mA, V_{GS} = 0$	-180	—	—	V
Gate-Source Cut-off Current	$V_{GS (OFF)}$ (Note)	$V_{DS} = -10V, I_D = -10mA$	-0.8	—	-2.8	V
Drain-Source Saturation Voltage	$V_{DS (ON)}$	$I_D = -0.6A, V_{GS} = -10V$	—	-1.2	-3.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10V, I_D = -0.3A$	—	0.7	—	S
Input Capacitance	C_{iss}	$V_{DS} = -10V, V_{GS} = 0, f = 1MHz$	—	210	—	pF
Output Capacitance	C_{oss}		—	90	—	pF
Reverse Transfer Capacitance	C_{rss}		—	45	—	pF

Note : $V_{GS (OFF)}$ Classification O : -0.8~-1.6, Y : -1.4~-2.8

This transistor is the electrostatic sensitive device.
Please handle with caution.

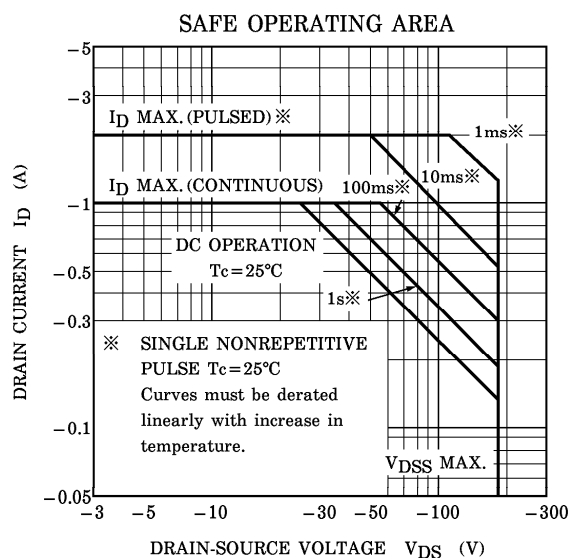
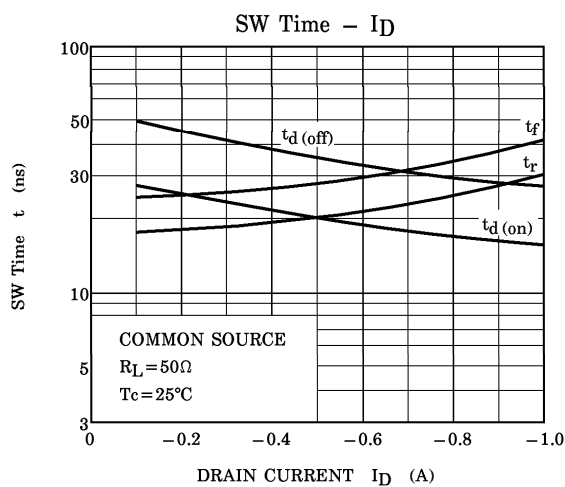
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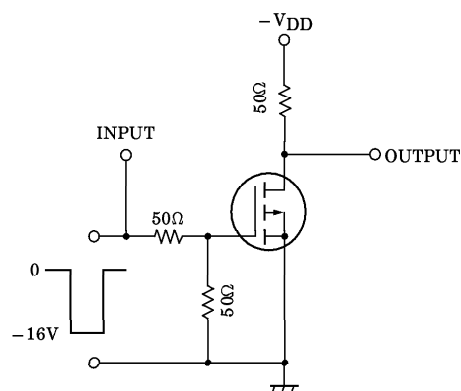


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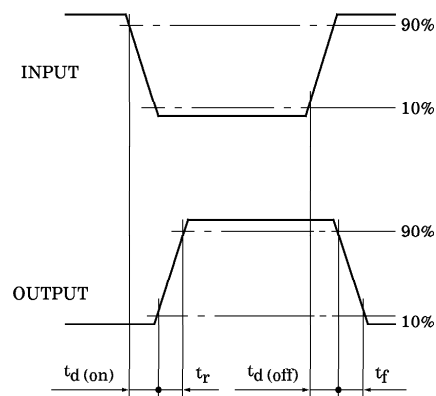
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TEST CIRCUIT



WAVEFORMS



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