TOSHIBA Field Effect Transistor Silicon P Channel MOS Type

2SJ313

Audio Frequency Power Amplifier Application

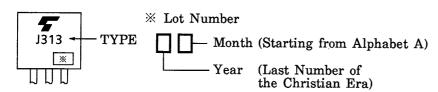
• High breakdown voltage $: V_{DSS} = -180 \text{ V}$ • High forward transfer admittance $: |Y_{fs}| = 0.7 \text{ S (typ.)}$

• Complementary to 2SK2013

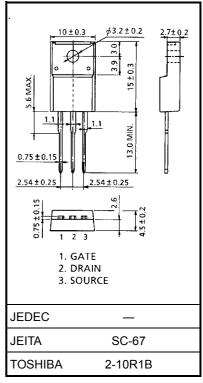
Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Drain-source voltage	V_{DSS}	-180	V
Gate-source voltage	V_{GSS}	±20	V
Drain current (Note 1)	I _D	-1	Α
Power dissipation (Tc = 25°C)	P_{D}	25	W
Channel temperature	T _{ch}	150	°C
Storage temperature range	T _{stg}	-55~150	°C

Marking



Unit: mm



Weight: 1.9 g (typ.)

Electrical Characteristics (Ta = 25°C)

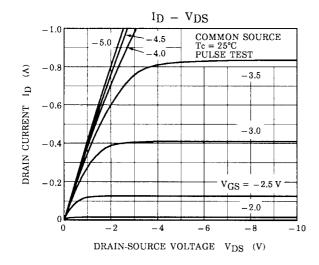
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Gate leakage current	I _{GSS}	V _{DS} = 0, V _{GS} = ±20 V	_	_	±100	nA
Drain-source breakdown voltage	V _{(BR) DSS}	$I_D = -10 \text{ mA}, V_{GS} = 0$	-180	1	-	V
Gate-source cut-off voltage (Note 2)	V _{GS (OFF)}	$V_{DS} = -10 \text{ V}, I_D = -10 \text{ mA}$	-0.8	-	-2.8	V
Drain-source saturation voltage	V _{DS (ON)}	$I_D = -0.6 \text{ A}, V_{GS} = -10 \text{ V}$	_	-1.2	-3.0	V
Forward transfer admittance	Y _{fs}	$V_{DS} = -10 \text{ V}, I_D = -0.3 \text{ A}$	-	0.7	_	S
Input capacitance	C _{iss}		-	210	_	
Output capacitance	C _{oss}	$V_{DS} = -10 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$	_	90	_	pF
Reverse transfer capacitance	C _{rss}		_	45	_	

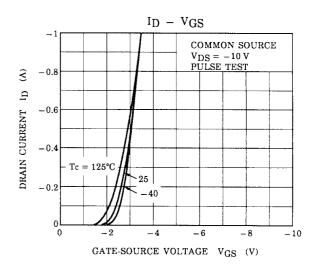
Note 1: Please use devices on condition that the channel temperature is below 150°C.

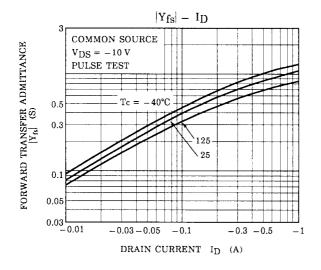
Note 2: V_{GS (OFF)} Classification O: -0.8~-1.6, Y: -1.4~-2.8

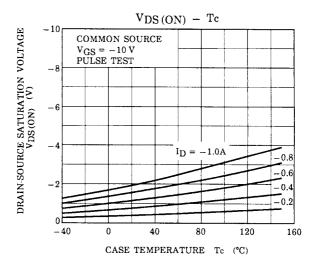
This transistor is the electrostatic sensitive device.

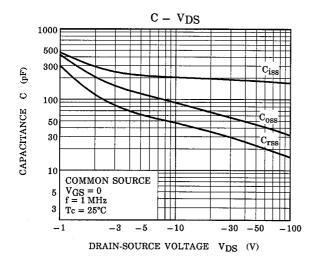
Please handle with caution.

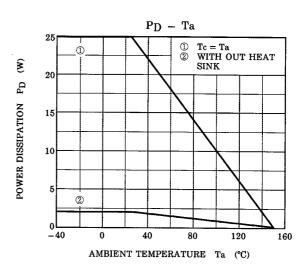




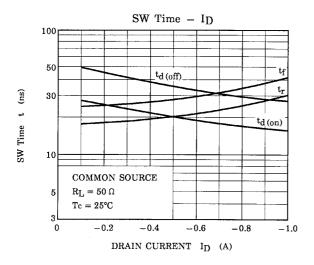


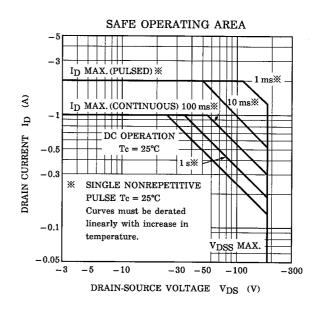




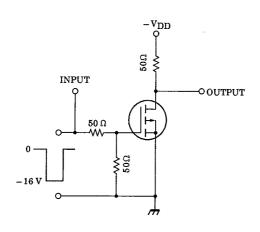


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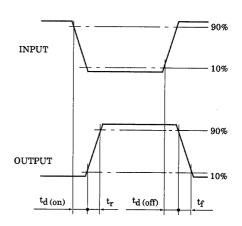




Test Circuit



Waveforms



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