TOSHIBA Field Effect Transistor Silicon P Channel MOS Type

2SJ343

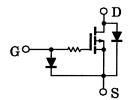
High Speed Switching Applications Analog Switch Applications

- Low threshold voltage: $V_{th} = -0.8 \sim -2.5 \text{ V}$
- · High speed
- Enhancement-mode
- Small package
- Complementary to 2SK1826

Marking

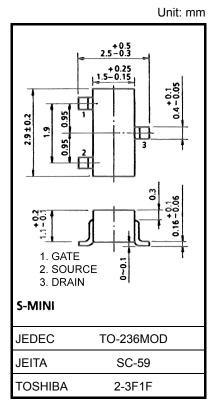
Equivalent Circuit





Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Drain-source voltage	V_{DS}	-50	V
Gate-source voltage	V_{GSS}	-7	V
DC drain current	ΙD	-50	mA
Drain power dissipation	P_{D}	200	mW
Channel temperature	T _{ch}	150	°C
Storage temperature range	T _{stg}	−55~150	°C



Weight: 0.012 g (typ.)

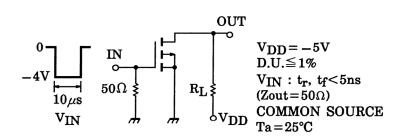
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.)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

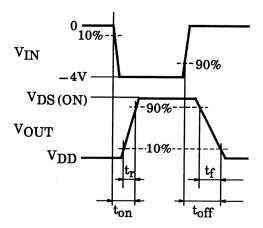
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Electrical Characteristics (Ta = 25°C)

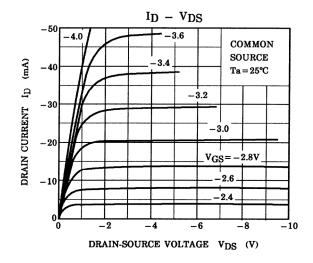
Characteristics		Symbol	Test Condition	Min	Тур.	Max	Unit
Gate leakage current		I _{GSS}	$V_{GS} = -7 \text{ V}, V_{DS} = 0$	_	_	-1	μА
Drain-source breakdown voltage		V (BR) DSS	$I_D = -100 \mu A, V_{GS} = 0$	-50		_	V
Drain cut-off curre	ent	I _{DSS}	$V_{DS} = -50 \text{ V}, V_{GS} = 0$	_		-1	μА
Gate threshould	voltage	V _{th}	$V_{DS} = -5 \text{ V}, I_D = -0.1 \text{ mA}$	-0.8	_	-2.5	V
Forward transfer	admittance	Y _{fs}	$V_{DS} = -5 \text{ V}, I_D = -10 \text{ mA}$	15		_	mS
Drain-source ON resistance		R _{DS} (ON)	I _D = -10 mA, V _{GS} = -4 V	_	20	50	Ω
Input capacitance)	C _{iss}	$V_{DS} = -5 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$	_	10.5		pF
Reverse transfer capacitance		C _{rss}	$V_{DS} = -5 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$	—	1.9		pF
Output capacitance		Coss	$V_{DS} = -5 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$	—	7.2		pF
Switching time	Turn-on time	t _{on}	$V_{DD} = -5 \text{ V, } I_D = -10 \text{ mA,} $ $V_{GS} = 0 \sim -4 \text{ V}$	_	0.15	_	
	Turn-off time	t _{off}		_	0.13	—	μS

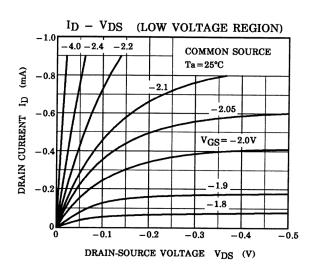
Switching Time Test Circuit

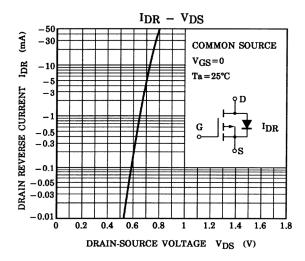


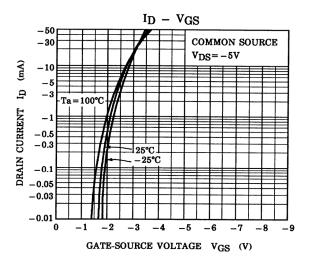


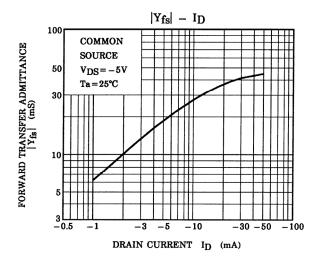
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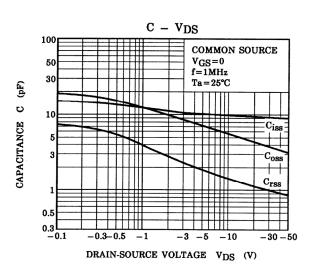




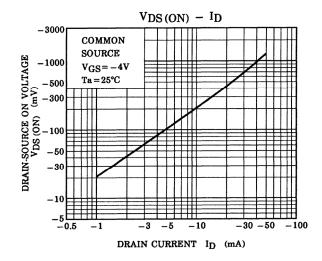


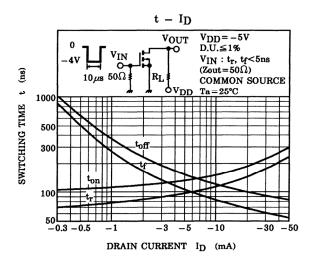


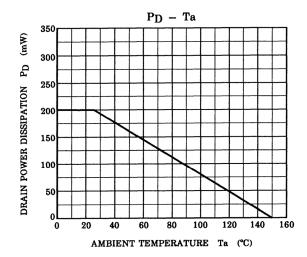




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20070701-EN GENERAL

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