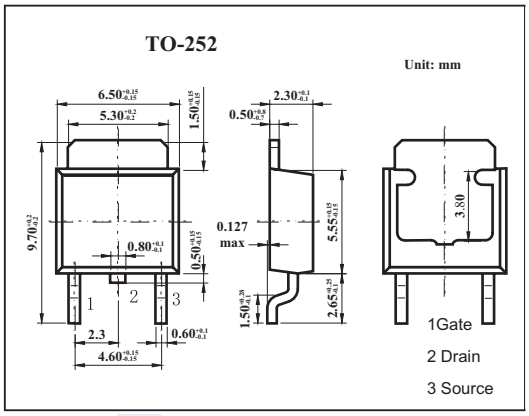
P-Channel MOS FET
For High-Speed Switching
2SJ181S



Features

- Low on-resistance
- High speed switching
- Low drive current
- No secondary breakdown
- Suitable for switching regulator and DC-DC converter

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	-600	V
Gate to source voltage	V_{GSS}	±15	V
Drain current	$I_{D(DS)}$	-0.5	A
Drain peak current *	$I_{D(pulse)}$	-1	A
Channel dissipation (Tc=25℃)	P_{ch}	20	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW ⩽ 10 μs, duty cycle ⩽ 1%

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain to source breakdown voltage	V_{DSS}	I_D = -10 mA, V_{GS} = 0	-600			V
Gate to source breakdown voltage	V_{GSS}	I_G = ±100 μA, V_{DS} = 0	±15			V
Gate to source leak current	I_{GSS}	V_{GS} = ±12 V, V_{DS} = 0			±10	□A
Zero gate voltage drain current	I_{DSS}	V_{DS} = -500 V, V_{GS} = 0			-100	□A
Gate to source cutoff voltage	$V_{GS(off)}$	I_D = -1 mA, V_{DS} = -10 V	-2		-4	V
Static Drain to source on stateresistance	$R_{DS(on)}$	I_D = -0.3 A, V_{GS} = -10 V		15	25	Ω
Forward transfer admittance	$\|y_{fs}\|$	I_D = -0.3 A, V_{DS} = -20 V	0.3	0.45		S
Input capacitance	C_{iss}	V_{DS} = -10 V, V_{GS} = 0,		220		pF
Output capacitance	C_{oss}	f = 1 MHz		55		pF
Reverse transfer capacitance	C_{rss}			13		pF
Turn-on delay time	$t_{d(on)}$	I_D = -0.3 A, V_{GS} = -10 V,		7		ns
Rise time	t_r	R_L = 100 Ω		20		ns
Turn-off delay time	$t_{d(off)}$			35		ns
Fall time	t_f			35		ns
Body to drain diode forward voltage	V_{DF}	I_F = -0.5 A, V_{GS} = 0		-0.85		V
Body to drain diode reverse recovery time	t_{rr}	I_F = -0.5 A, V_{GS} = 0, diF/dt = 50 A/μs		230		ns