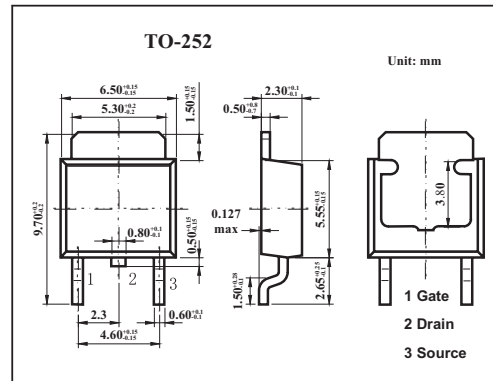
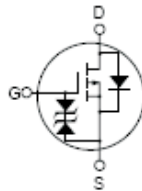


High Speed Power Switching

2SJ527S

■ Features

- Low on-resistance
 $R_{DS(on)} = 0.3 \Omega$ typ.
- Low drive current
- High speed switching
- 4V gate drive devices.



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	-60	V
Gate to source voltage	V_{GSS}	± 20	V
Drain current (DC)	I_D	-5	A
Drain current(pulse) *	I_D	-20	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10 \mu\text{s}$, duty cycle $\leq 1\%$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain to source breakdown voltage	V_{DSS}	$I_D = -10\text{mA}, V_{GS} = 0$	-60			V
Gate to source breakdown voltage	V_{GSS}	$I_G = \pm 100 \mu\text{A}, V_{DS} = 0$	± 20			V
Drain cut-off current	I_{DSS}	$V_{DS} = -60\text{V}, V_{GS} = 0$			-10	μA
Gate leakage current	I_{GSS}	$V_{GS} = \pm 16\text{V}, V_{DS} = 0$			± 10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS} = -10\text{V}, I_D = -1\text{mA}$	-1.0		-2.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = -10\text{V}, I_D = -3\text{A}$	1.8	3		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS} = -10\text{V}, I_D = -3\text{A}$		0.3	0.4	Ω
		$V_{GS} = -4.0\text{V}, I_D = -3\text{A}$		0.5	0.8	Ω
Input capacitance	C_{iss}	$V_{DS} = -10\text{V}, V_{GS} = 0, f = 1\text{MHz}$		220		pF
Output capacitance	C_{oss}			110		pF
Reverse transfer capacitance	C_{rss}			35		pF
Turn-on delay time	$t_{d(on)}$			10		ns
Rise time	t_r	$V_{GS(on)} = -10\text{V}, I_D = -3\text{A}, R_L = 10 \Omega$		30		ns
Turn-off delay time	$t_{d(off)}$			45		ns
Fall time	t_f			35		ns