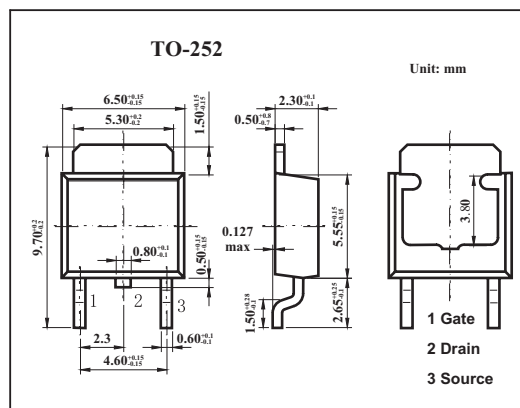
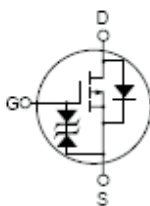


High Speed Power Switching

2SJ529S

■ Features

- Low on-resistance
 $R_{DS(on)} = 0.12 \Omega$ typ.
- 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_{DS}	-60	V
Gate to source voltage	V_{GS}	± 20	V
Drain current (DC)	I_D	-10	A
Drain current(pulse) *	I_D	-40	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_{DS}	$I_D = -10\text{mA}, V_{GS} = 0$	-60			V
Gate to source breakdown voltage	V_{GS}	$I_G = \pm 100 \mu\text{A}, V_{DS} = 0$	± 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} $	$V_{DS} = -10\text{V}, I_D = -5\text{A}$	4.5	7.5		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS} = -10\text{V}, I_D = -5\text{A}$		0.12	0.16	Ω
		$V_{GS} = -4.0\text{V}, I_D = -5\text{A}$		0.17	0.24	Ω
Input capacitance	C_{iss}	$V_{DS} = -10\text{V}, V_{GS} = 0, f = 1\text{MHz}$		580		pF
Output capacitance	C_{oss}			300		pF
Reverse transfer capacitance	C_{rss}			85		pF
Turn-on delay time	$t_{d(on)}$	$V_{GS(on)} = -10\text{V}, I_D = -5\text{A}, R_L = 6 \Omega$		10		ns
Rise time	t_r			40		ns
Turn-off delay time	$t_{d(off)}$			85		ns
Fall time	t_f			60		ns