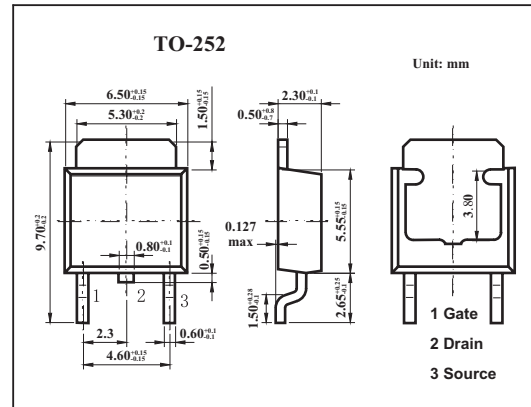
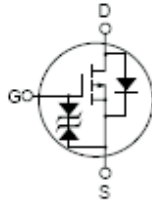


## High Speed Power Switching

### 2SJ528S

#### ■ Features

- Low on-resistance  
 $R_{DS(on)} = 0.17 \Omega$  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	$V_{GS}$	$\pm 20$	V
Drain current (DC)	$I_D$	-7	A
Drain current(pulse) *	$I_D$	-28	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	$V_{GS}$	$I_G = \pm 100 \mu\text{A}, V_{DS} = 0$	$\pm 20$			V
Drain cut-off current	$I_{DSS}$	$V_{DS} = -60\text{V}, V_{GS} = 0$			-10	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS} = \pm 16\text{V}, V_{DS} = 0$			$\pm 10$	$\mu\text{A}$
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} $	$V_{DS} = -10\text{V}, I_D = -4\text{A}$	3.0	5.0		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS} = -10\text{V}, I_D = -4\text{A}$		0.17	0.22	$\Omega$
		$V_{GS} = -4.0\text{V}, I_D = -4\text{A}$		0.24	0.37	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS} = -10\text{V}, V_{GS} = 0, f = 1\text{MHz}$		440		pF
Output capacitance	$C_{oss}$			220		pF
Reverse transfer capacitance	$C_{rss}$			75		pF
Turn-on delay time	$t_{d(on)}$			10		ns
Rise time	$t_r$	$V_{GS(on)} = -10\text{V}, I_D = -4\text{A}, R_L = 7.5 \Omega$		40		ns
Turn-off delay time	$t_{d(off)}$			75		ns
Fall time	$t_f$			65		ns