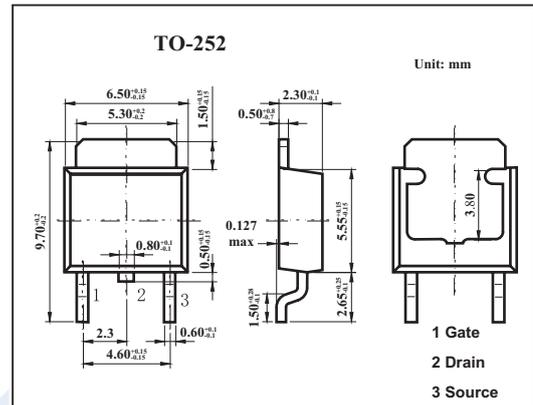
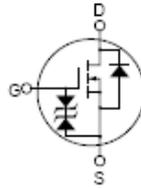


## N-Channel Silicon MOSFET 2SK2869

### ■ Features

- Low on-resistance  
 $R_{DS} = 0.033 \Omega$  typ.
- High speed switching
- 4V gate drive device can be driven from 5V source



### ■ 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	$I_D$	20	A
	$I_{DP}^*$	80	A
Power dissipation	$P_D$	30	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	Test conditions	Min	Typ	Max	Unit
Drain to source breakdown voltage	$V_{DS}$	$I_D = 10\text{mA}, V_{GS} = 0$	60			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	$V_{GS(off)}$	$V_{DS} = 10\text{V}, I_D = 1\text{mA}$	1.5		2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}, I_D = 10\text{A}$	10	16		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS} = 10\text{V}, I_D = 10\text{A}$		0.033	0.045	$\Omega$
		$V_{GS} = 4\text{V}, I_D = 10\text{A}$		0.055	0.07	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS} = 20\text{V}, V_{GS} = 0, f = 1\text{MHz}$		740		pF
Output capacitance	$C_{oss}$			380		pF
Reverse transfer capacitance	$C_{rss}$			140		pF
Turn-on delay time	$t_{on}$		$I_D = 10\text{A}, V_{GS(on)} = 10\text{V}, R_L = 3 \Omega$		10	
Rise time	$t_r$			110		ns
Turn-off delay time	$t_{off}$			105		ns
Fall time	$t_f$			120		ns