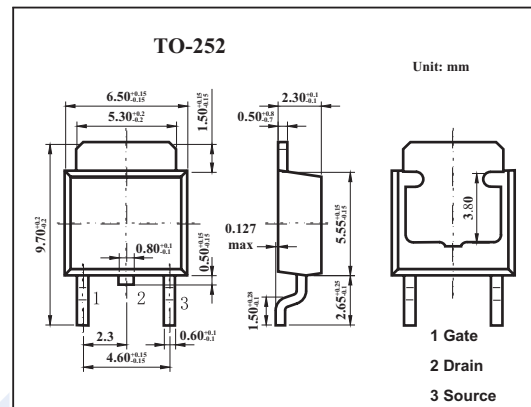
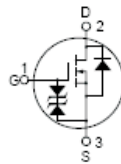


## Silicon N Cannel MOSFET 2SK3147S

### ■ Features

- Low on-resistance  
 $R_{DS} = 0.1 \Omega$  typ.
- High speed switching
- 4 V gate drive device can be driven from 5 V source



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DS}$	100	V
Gate to source voltage	$V_{GS}$	$\pm 20$	V
Drain current	$I_D$	5	A
	$I_{DP}^*$	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 cut-off current	$I_{DSS}$	$V_{DS}=100V, V_{GS}=0$			10	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS} = \pm 16V, V_{DS}=0$			$\pm 10$	$\mu\text{A}$
Gate to source cut off voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1\text{mA}$	1.0		2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=3A$	3.5	6		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=3A$		0.1	0.13	$\Omega$
		$V_{GS}=4V, I_D=3A$		0.13	0.18	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=10V, V_{GS}=0, f=1\text{MHz}$		420		pF
Output capacitance	$C_{oss}$			185		pF
Reverse transfer capacitance	$C_{rss}$			100		pF
Turn-on delay time	$t_{on}$		$I_D=3A, V_{GS(on)}=10V, R_L=10\Omega$		10	
Rise time	$t_r$			35		ns
Turn-off delay time	$t_{off}$			110		ns
Fall time	$t_f$			60		ns