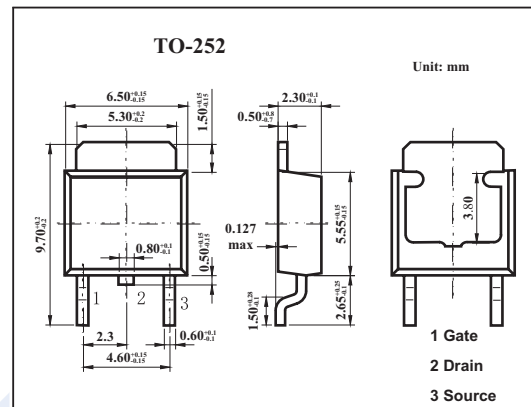
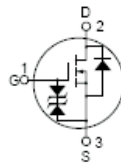


Silicon N Cannel MOSFET 2SK3147S

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