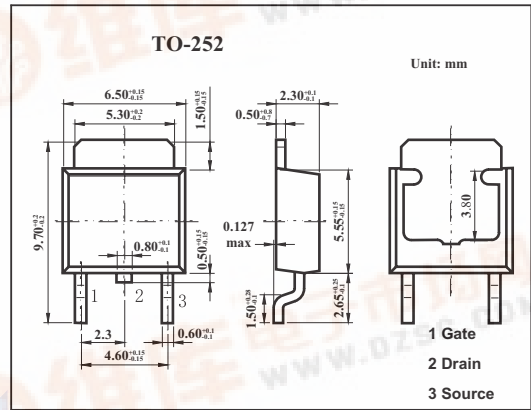
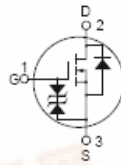


SMD Type MOSFET

Silicon N Cannel MOSFET  
2SK3147S

Features

- Low on-resistance  
R<sub>DS</sub> = 0.1 Ω typ.
- High speed switching
- 4 V gate drive device can be driven from 5 V source



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	V <sub>DSS</sub>	100	V
Gate to source voltage	V <sub>GSS</sub>	±20	V
Drain current	I <sub>D</sub>	5	A
	I <sub>DP</sub> *	20	A
Power dissipation	P <sub>D</sub>	20	W
Channel temperature	T <sub>ch</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* PW ≤ 10 μs, Duty Cycle ≤ 1%

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	I <sub>DSS</sub>	V <sub>DS</sub> =100V, V <sub>GS</sub> =0			10	μA
Gate leakage current	I <sub>GSS</sub>	V <sub>GS</sub> =±16V, V <sub>DS</sub> =0			±10	μA
Gate to source cut off voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1mA	1.0		2.5	V
Forward transfer admittance	Y <sub>fs</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =3A	3.5	6		S
Drain to source on-state resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =3A		0.1	0.13	Ω
		V <sub>GS</sub> =4V, I <sub>D</sub> =3A		0.13	0.18	Ω
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHZ		420		pF
Output capacitance	C <sub>oss</sub>			185		pF
Reverse transfer capacitance	C <sub>rss</sub>			100		pF
Turn-on delay time	t <sub>on</sub>				10	ns
Rise time	t <sub>r</sub>	I <sub>D</sub> =3A, V <sub>GS(on)</sub> =10V, R <sub>L</sub> =10Ω		35		ns
Turn-off delay time	t <sub>off</sub>			110		ns
Fall time	t <sub>f</sub>			60		ns

