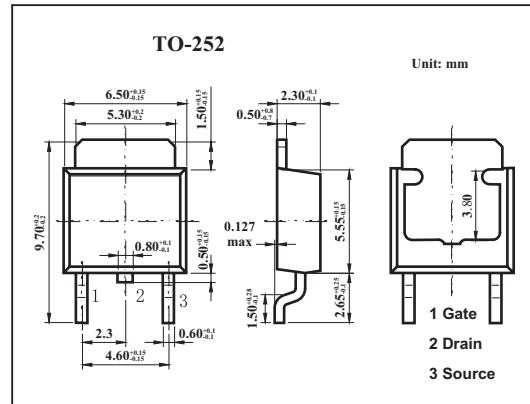
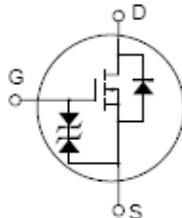


## Silicon N-Channel MOSFET

### 2SK1152S

#### ■ Features

- Low on-resistance
- High speed switching
- Low drive current
- No secondary breakdown
- Suitable for switching regulator and DC-DC converter



#### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	V <sub>DSS</sub>	500	V
Gate to source voltage	V <sub>GSS</sub>	±30	V
Drain current (DC)	I <sub>D</sub>	1.5	A
Drain current(pulse) *	I <sub>D</sub>	6	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 μ s, duty cycle ≤ 1%

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain to source breakdown voltage	V <sub>DSS</sub>	I <sub>D</sub> =10mA, V <sub>GS</sub> =0	500			V
Gate to source breakdown voltage	V <sub>GSS</sub>	I <sub>D</sub> =±100 μ A, V <sub>DS</sub> =0	±30			V
Drain cut-off current	I <sub>DSS</sub>	V <sub>DS</sub> =400V, V <sub>GS</sub> =0			100	μ A
Gate leakage current	I <sub>GSS</sub>	V <sub>GS</sub> =±25V, V <sub>DS</sub> =0			±10	μ A
Gate to source cutoff voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1mA	2.0		3.0	V
Forward transfer admittance	Y <sub>fs</sub>	V <sub>DS</sub> =20V, I <sub>D</sub> =1A	0.6	1.1		s
Drain to source on-state resistance	R <sub>DSS(on)</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =1A		4.0	6.0	Ω
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHZ		160		pF
Output capacitance	C <sub>oss</sub>			45		pF
Reverse transfer capacitance	C <sub>rss</sub>			5		pF
Turn-on delay time	t <sub>d(on)</sub>	I <sub>D</sub> =1A, V <sub>GS(on)</sub> =0, R <sub>L</sub> =30 Ω		5		ns
Rise time	t <sub>r</sub>			10		ns
Turn-off delay time	t <sub>d(off)</sub>			20		ns
Fall time	t <sub>f</sub>			10		ns