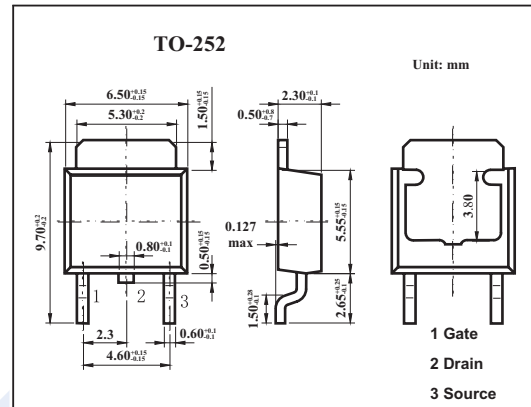
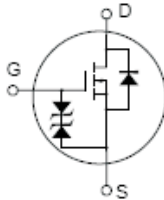


## Silicon N-Channel MOSFET

### 2SK2084S

#### ■ Features

- Low on-resistance
- High speed switching
- Low drive current
- Suitable for Switching regulator, DC - DC converter



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V <sub>DSS</sub>	20	V
Gate to source voltage	V <sub>GSS</sub>	±20	V
Drain current	I <sub>D</sub>	7	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

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	I <sub>DSS</sub>	V <sub>DS</sub> =16V, V <sub>GS</sub> =0			100	μA
Gate leakage current	I <sub>GSS</sub>	V <sub>GS</sub> =±16V, V <sub>DS</sub> =0			±10	μA
Gate to source cutoff 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> =4A	5	9		S
Drain to source on-state resistance	R <sub>DSON</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =4A		0.04	0.053	Ω
		V <sub>GS</sub> =4V, I <sub>D</sub> =4A		0.058	0.075	Ω
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHz		800		pF
Output capacitance	C <sub>oss</sub>			680		pF
Reverse transfer capacitance	C <sub>rss</sub>			165		pF
Turn-on delay time	t <sub>d(on)</sub>				15	
Rise time	t <sub>r</sub>	I <sub>D</sub> =4A, V <sub>GS(on)</sub> =10V, R <sub>L</sub> =5Ω		60		ns
Turn-off delay time	t <sub>d(off)</sub>			100		ns
Fall time	t <sub>f</sub>			80		ns