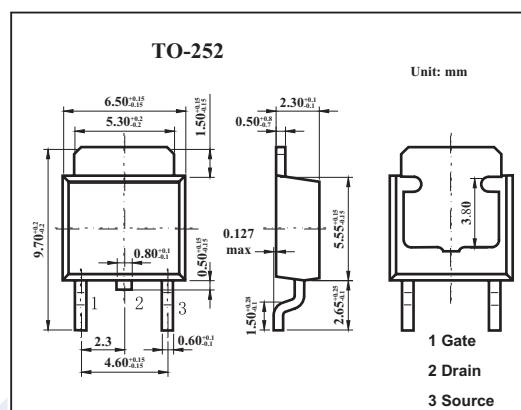
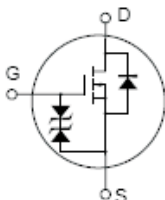


Silicon N-Channel MOSFET

2SK2084S

■ Features

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



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	20	V
Gate to source voltage	V_{GS}	± 20	V
Drain current	I_D	7	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=16\text{V}, V_{GS}=0$			100	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 16\text{V}, V_{DS}=0$			± 10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=1\text{mA}$	1.0		2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=4\text{A}$	5	9		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=4\text{A}$		0.04	0.053	Ω
		$V_{GS}=4\text{V}, I_D=4\text{A}$		0.058	0.075	Ω
Input capacitance	C_{iss}	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		800		pF
Output capacitance	C_{oss}			680		pF
Reverse transfer capacitance	C_{rss}			165		pF
Turn-on delay time	$t_{d(on)}$	$I_D=4\text{A}, V_{GS(on)}=10\text{V}, R_L=5\Omega$		15		ns
Rise time	t_r			60		ns
Turn-off delay time	$t_{d(off)}$			100		ns
Fall time	t_f			80		ns