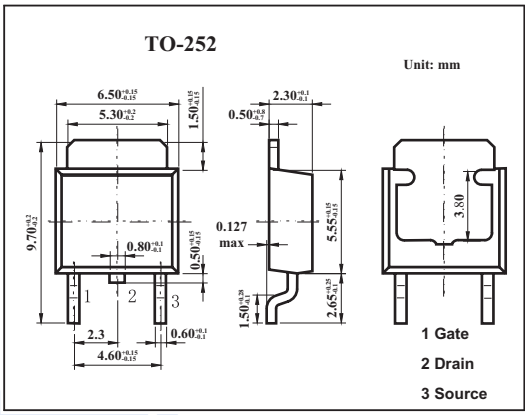
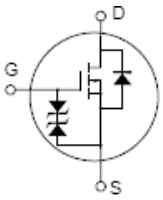
Silicon N-Channel MOSFET
2SK2059S

■ Features

- Low on-resistance
- High speed switching
- No Secondary Breakdown
- Suitable for Switching regulator, DC - DC converter





■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	600	V
Gate to source voltage	V_{GSS}	±30	V
Drain current	I_D	3	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	V_{DS}=500V,V_{GS}=0			100	μA
Gate leakage current	I_{GSS}	V_{GS}=±25V,V_{DS}=0			±10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	2.0		3.0	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS}=10V,I_D=10A	1.2	2.0		S
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=10V,I_D=1A		3.8	5.0	Ω
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		295		pF
Output capacitance	C_{oss}			70		pF
Reverse transfer capacitance	C_{rss}			12		pF
Turn-on delay time	$t_{d(on)}$	I_D=1A,$V_{GS(on)}$=10V,R_L=30Ω		8		ns
Rise time	tr			25		ns
Turn-off delay time	$t_{d(off)}$			65		ns
Fall time	tf			30		ns