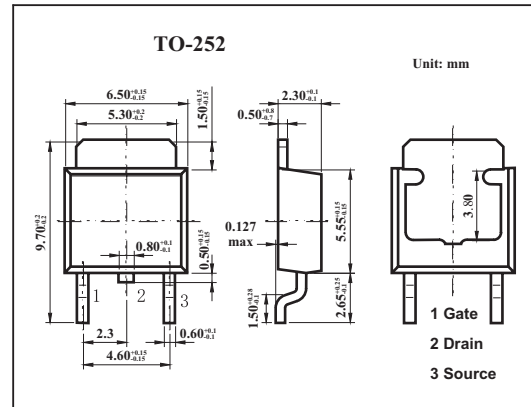
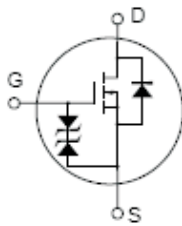


Silicon N-Channel MOSFET

2SK1254S

■ Features

- Low on-resistance
- High speed switching
- Suitable for switching regulator and DC-DC converter



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	V _{DSS}	120	V
Gate to source voltage	V _{GSS}	±20	V
Drain current (DC)	I _D	3	A
Drain current(pulse) *	I _D	12	A
Power dissipation	P _D	20	W
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* PW ≤ 10 μs, duty cycle ≤ 1%

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain to source breakdown voltage	V _{DSS}	I _D =10mA, V _{GS} =0	120			V
Gate to source breakdown voltage	V _{GSS}	I _D =±100 μA, V _{DS} =0	±20			V
Drain cut-off current	I _{DSS}	V _{DS} =100V, V _{GS} =0			100	μA
Gate leakage current	I _{GSS}	V _{GS} =±16V, V _{DS} =0			±10	μA
Gate to source cutoff voltage	V _{GS(off)}	V _{DS} =10V, I _D =1mA	1.0		2.0	V
Forward transfer admittance	Y _{fs}	V _{DS} =10V, I _D =2A	2.4	4.0		s
Drain to source on-state resistance	R _{DSON}	V _{GS} =10V, I _D =2A		0.30	0.40	Ω
		V _{GS} =4V, I _D =2A		0.35	0.55	Ω
Input capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0, f=1MHZ		420		pF
Output capacitance	C _{oss}			190		pF
Reverse transfer capacitance	C _{rss}			25		pF
Turn-on delay time	t _{d(on)}	I _D =2A, V _{GS(on)} =10V, R _L =15 Ω		5		ns
Rise time	t _r			20		ns
Turn-off delay time	t _{d(off)}			150		ns
Fall time	t _f			45		ns