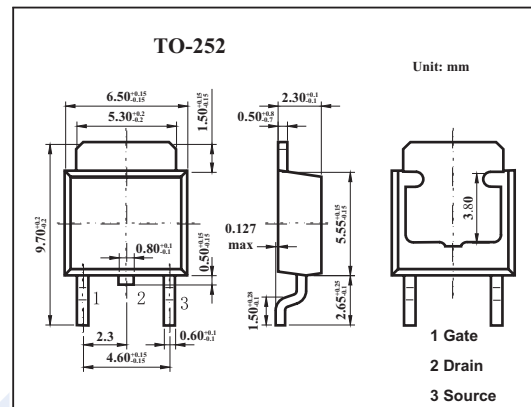
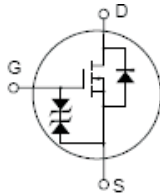


Silicon N-Channel MOSFET

2SK1838S

■ Features

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



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	V _{DSS}	250	V
Gate to source voltage	V _{GSS}	±30	V
Drain current	I _D	1	A
Power dissipation	P _D	10	W
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* PW ≤ 10ms, duty cycle ≤ 5%

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain source breakdown voltage	V _{DSS}	I _D =10mA, V _{GS} =0	250			V
Gate to source breakdown voltage	V _{GSS}	I _D =±100 μA, V _{DS} =0	±30			V
Drain cut-off current	I _{DSS}	V _{DS} =200V, V _{GS} =0			100	μA
Gate leakage current	I _{GSS}	V _{GS} =±25V, V _{DS} =0			±10	μA
Forward transfer admittance	Y _{fs}	V _{DS} =10V, I _D =0.5A	0.3	0.5		S
Drain to source on-state resistance	R _{DS(on)}	V _{GS} =10V, I _D =0.5A		5.5	8.0	Ω
Input capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0, f=1MHz		60		pF
Output capacitance	C _{oss}			30		pF
Reverse transfer capacitance	C _{rss}			5		pF
Turn-on delay time	t _{d(on)}	I _D =0.5A, V _{GS(on)} =10V, R _L =60 Ω		5		ns
Rise time	t _r			6		ns
Turn-off delay time	t _{d(off)}			10		ns
Fall time	t _f			4.5		ns