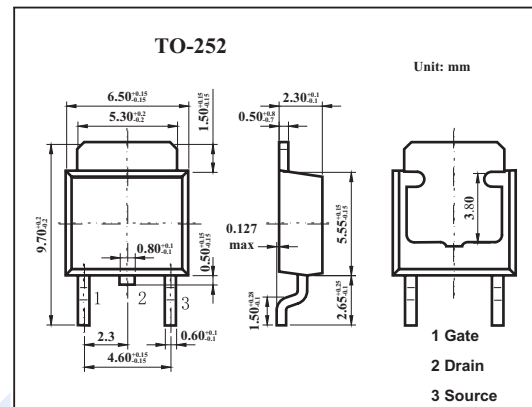
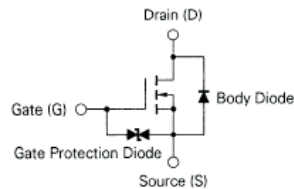


MOS Field Effect Power Transistor

2SK1954

■ Features

- Low on-resistance
 $R_{DS(on)}=0.65\ \Omega$ ($V_{GS}=10V, I_D=2A$)
- Low Ciss Ciss=300pF typ
- Built-in G-S Gate Protection Diode
- High Avalanche Capability Ratings



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	180	V
Gate to source voltage	V_{GS}	± 20	V
Drain current	I_D	± 4.0	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}	$V_{DS}=180V, V_{GS}=0$			100	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0$			± 10	μA
Gate to Source Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	2.0		4.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=2.0A$	0.5			S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=2.0A$		0.52	0.65	Ω
Input capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$		300		pF
Output capacitance	C_{oss}			170		pF
Reverse transfer capacitance	C_{rss}			50		pF
Turn-on delay time	$t_{d(on)}$	$I_D=2A, V_{GS(on)}=10V, R_L=50\ \Omega$		9		ns
Rise time	t_r			12		ns
Turn-off delay time	$t_{d(off)}$			28		ns
Fall time	t_f			12		ns